

# Charlton County, Georgia



## Hazard Mitigation Plan 2023-2027

### **Including the City of Folkston and the City of Homeland**

This Plan was produced for the Charlton County Board of Commissioners  
by the Southern Georgia Regional Commission  
through funding provided by the Federal Emergency Management Agency  
and the  
Georgia Emergency Management Agency

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## Contents

<b>Chapter 1: Introduction to the Planning Process.....</b>	<b>5</b>
Section I .....	5
Section II.....	7
Section III.....	10
Section IV Organization of the Plan .....	11
Section V.....	12
Section VI.....	12
Section VII.....	13
Section VIII.....	14
 <b>Chapter #2:.....</b>	 <b>25</b>
Section I Hurricanes/Tropical Storms .....	26
Section II Flood/SLOSH .....	30
Section III Wildfire.....	42
Section IV Tornado .....	51
Section V Thunderstorms & Wind.....	55
Section VI Severe Winter Storm .....	61
Section VII Hail .....	64
Section VIII Drought.....	67
Section IX Lightning .....	72
Section X Extreme Heat .....	76
Section XI.....	80
 <b>Chapter #3:.....</b>	 <b>95</b>
 <b>Overall Community Mitigation Goals, Policies, and Values Narrative .....</b>	 <b>96</b>
Section I Hurricanes/Tropical Storms .....	98
Goal 1 Objective 2.....	105
Section II Flood/SLOSH .....	106
Section III Wildfire.....	113
Goal #1 Objective #2.....	127
Goal #1 Objective #3.....	127
Section IV Tornado .....	128
Section V Thunderstorms & Wind.....	132
Section VI Severe Winter Storm .....	136
Section VII Hail .....	139
Section VIII Drought.....	142
Section IX Lightning .....	145
Section X Extreme Heat .....	148
 <b>Chapter #4: Executing The Plan: .....</b>	 <b>155</b>
 <b>Implementation of the Action Plan.....</b>	 <b>155</b>
Section III.....	158
 <b>Chapter #5: Conclusion.....</b>	 <b>160</b>
 <b>Appendices.....</b>	 <b>162</b>
Appendix A. Hazard Identification, Risk, and Vulnerability (HRV).....	162
Appendix B. Growth and Development Trends.....	162

<b>Appendix C. Other Planning Documents .....</b>	<b>162</b>
<b>Appendix D. Worksheets Used in Planning Process .....</b>	<b>162</b>
<b>Appendix E. Copies of Required Planning Documentation .....</b>	<b>162</b>
<b>Appendix F. Reports and Inventories .....</b>	<b>162</b>
<b>Appendix G. HAZUS Report.....</b>	<b>162</b>

# **Chapter 1:** **Introduction to the Planning Process**

## **Summary of Changes**

Table 1.1 provides a brief description of each section in this chapter and a summary of changes made.

<b>CHAPTER 1 Section</b>	<b>Updates to Section</b>
I. Purpose and Need, Authority & Statement of Problem	<ul style="list-style-type: none"> <li>■ Language updated to reflect that this was an update to the existing plan</li> </ul>
II. Local Methodology, Brief Description of the Plan Update Process, and Participants in the Update Process	<ul style="list-style-type: none"> <li>■ All participating jurisdictions are the same as in the original plan</li> </ul>
III. Description of How Each Section of the Original Plan Was Reviewed and Analyzed and Whether It Was Revised	<ul style="list-style-type: none"> <li>■ Planning Committee reviewed each section</li> <li>■ Updates made using National, State &amp; Local data</li> </ul>
IV. Organization of Plan	<ul style="list-style-type: none"> <li>■ Consistent with the original plan</li> </ul>
V. Local Hazard, Risk and Vulnerability (HRV) Summary, Local Mitigation Goals and Objectives	<ul style="list-style-type: none"> <li>■ Updates made using National, State &amp; Local data</li> </ul>
VI. Multi-Jurisdictional Special Considerations (HRV, Goals, Special Needs)	<ul style="list-style-type: none"> <li>■ No significant changes from the original plan</li> </ul>
VII. Adoption, Implementation, Monitoring, and Evaluation (A General Description of the Processes)	<ul style="list-style-type: none"> <li>■ Evaluation methods revised and updated</li> </ul>
VIII. Community Data (Demographics, Census, Commerce, History, Etc.)	<ul style="list-style-type: none"> <li>■ Updates were made using the most recently available Census Bureau data.</li> </ul>

Table 1.1: Overview of updates to Chapter 1: Introduction to the Planning Process

## **Section I** **Purpose and Need, Authority and Statement of Problem**

This document is the official plan update to the original Charlton County Pre-Disaster Mitigation Plan approved by the Georgia Emergency Management Agency (GEMA) and the Federal Emergency Management Agency on October 26, 2007. The subsequent updates were approved in 2013 and 2018.

This document aims to provide an overview of the natural hazards that may impact Charlton County, the City of Folkston, and the City of Homeland, Georgia. Its purpose is also to outline Charlton County's, the City of Folkston's, and the City of Homeland's plans for the Hazard Mitigation of potential loss of life and damage to property and the economy that may occur with these events.

This Plan is a direct result of meetings & research done by the local government officials and citizens of Charlton County, Folkston, and the City of Homeland after forming the Charlton County Hazard Mitigation Plan Update Committee (otherwise known as the Charlton County HMPUC). This Plan results from their commitment to reducing the risks of natural hazards and their effects on their communities. The City of Folkston and the City of Homeland are the only incorporated cities in Charlton County.

Hazard Mitigation is a means to address the potential damages that natural or man-made disasters may cause. This extends to addressing the possible loss of life, property, economy, etc., that would not otherwise be addressed.

The Charlton County Commission gave authority to develop this Plan due to their execution of the Grantee-Subgrantee Agreement for the Charlton County Hazard Mitigation Grant Program (HMGP) Planning Project and the Cities of Folkston and Homeland located in Charlton County through their participation in the planning project.

Two Public Hearing Notices were published in the Charlton County legal organ newspaper to initiate an outreach program to neighboring communities, governments, local and regional agencies, and agencies authorized to regulate development, businesses, and the public. In addition, e-mail lists were kept updated, and those on them were informed of meetings through e-mails and/or telephone calls. Surrounding County EMA Directors were notified of the plan update and invited (by phone calls) to participate in the process. None of the surrounding county EMA directors attended meetings or gave any input. Additionally, several area county Hazard Mitigation Plans were being updated simultaneously, and an active meeting list was maintained for scheduling purposes.

A member from the Planning Division staff of the Southern Georgia Regional Commission, representing eighteen adjoining counties (including Charlton County), attended the Charlton County meetings. SGRC Planning staff participated in all aspects of the planning process and provided a regional perspective informing the multi-jurisdictional Charlton County Hazard Mitigation Plan.

Through all of their efforts, the multi-jurisdictional Charlton County/City of Folkston/City of Homeland Hazard Mitigation Plan, along with a comprehensive range of Mitigation Goals, Objectives, and Action Steps, was developed (see Chapter 2 & Chapter 3), which will assist the local governments in emphasizing a more direct approach to Hazard Mitigation. The long-term goal is to reduce potential natural disaster losses to life, property, and the economy through Hazard Mitigation efforts.

## Section II

### Local Methodology, Plan Update Process, and Participants

#### A. Overview

This Charlton County Hazard Mitigation Plan Update encompasses the jurisdictions of Charlton County and the Cities of Folkston and Homeland, all located in Southeast Georgia. These jurisdictions also participated in the 2007 Hazard Mitigation Plan, 2013 Hazard Mitigation Plan Update, and 2018 Hazard Mitigation Plan Update. The Southern Georgia Regional Commission provided technical assistance. A Charlton County Hazard Mitigation Plan Update Committee (Charlton County HMPUC) was formed. An eighteen (18) month planning effort was undertaken, producing a Plan update containing updated Mitigation Goals, Objectives, and Action Steps to reduce or eliminate the potential loss of life and damage to property and the economy caused by all disasters.

An essential part of the planning process is the organization of resources. Assessing risks is also necessary for developing the Plan, which includes identifying hazards, profiling hazard events, inventorying assets, and estimated losses. Developing the Hazard Mitigation Plan, Implementing the Plan, and Monitoring its Progress are the final critical parts of the planning process.

Table 1, below, shows the names of the individuals who attended the workshops and participated in writing the plan:

Table 1. Participants in the Hazard Mitigation Plan Update Process		
Jurisdiction	Title	Name
Charlton County	County Administrator	Hampton Raulerson
Charlton County	Road Superintendent	Ronnie Pollock
Charlton County	Public Works Coordinator	Joanna Powell
Charlton County Fire/Rescue	Chief	C. L. Lewis
Charlton County Sheriff's Office	Captain	Penny Green
Charlton County Emergency Management Agency	Director	Bruce Young
City of Folkston	City Manager	Leonard H. Lloyd
City of Homeland	Mayor	Quida Johnson
City of Homeland	Water Supervisor	Leroy Quinn
City of Homeland	Mayor	Wesley Crews
City of Homeland	Councilman	Delbert Shelton
Georgia Emergency Management Agency	Mitigation Planner	Shelby Meyers
Southern Georgia Regional Commission	Senior Planner	Loretta Hylton

The meetings that were held are shown in Table 2 below, and the sign-in sheets of which are included in Appendix E:

Table 2. Meeting Schedule	
Meeting	Date
Kick-Off meeting	August 5, 2021
First Workshop	September 14, 2021

Second Workshop	October 11, 2021
Third Workshop	May 12, 2022
Final Public Hearing	

Building upon the approved 2018 Plan, each chapter was reviewed chronologically with updated hazard, risk, and vulnerability data and previous accomplishments of mitigation strategy efforts.

Copies of the 2018 Plan were made available at each meeting, while relevant chapters and sections under discussion were photocopied and distributed to those in attendance. Copies of the 2018 Plan and the draft Plan Update document were available at the Charlton County Commission, Charlton County EMA Office, City of Folkston, City of Homeland, and the SGRC website.

For the plan update, the Charlton County Hazard Mitigation Plan Update Committee (HMPUC) reviewed all chapters and sections of the prior plan. The committee updated them appropriately using national, state, and local data sources. The initial plan was used as a basis for the update. In addition, the HMPUC reviewed the individual parts of the prior plan (with an emphasis on the hazards, goals, objectives, and action steps) and updated these elements through open discussion in which updates were noted by Planning Department staff from the Southern Georgia Regional Commission, who then used notes from the workshops to create the new Hazard Mitigation Plan document.

The Wildfire sections were updated using the Georgia Forestry Commission's Charlton County "Community Wildfire Protection Plan." The CWPP was consulted to ensure consistency between the CWPP and HMP, and all action items from the CWPP that were still relevant were included as action steps in the HMP. Land use descriptions, zoning information, and community services were updated using the Charlton County/City of Folkston/City of Homeland Comprehensive Plan. Other documents consulted include the State of Georgia Hazard Mitigation Plan, Charlton County Local Emergency Operations Plan (LEOP), and the National Climatic Data Center (NCDC) information. The State Hazard Mitigation Plan and LEOP were consulted to ensure the HMP would be consistent with both these plans. Data from the NCDC was used to create the Hazard Frequency Table, and associated information regarding each hazard can be found in Chapter 2. Charlton County does not have a Flood Mitigation Assistance Plan but does have a Flood Insurance Study most recently revised on July 7, 2014.

## **B. Public Comment and Participation:**

The publication of a Public Notice in the legal organ is considered the legal method of notifying the public and inviting them to meetings.

The public was invited to attend and comment during two public hearings. One public hearing (Kick-Off Meeting) was held on August 5, 2021, and was advertised in the July 21, 2021 edition of *The Charlton County Herald*. Due to the rise of Covid-19 within Charlton County, the kick-off was held by conference call, including the EMA/EMS Director, one (1) staff member from the Southern Georgia Regional Commission, and one (1) GEMA representative. There was no one from the public at this meeting, so no public comments were made. A second and final public hearing was held on \_\_\_\_\_, advertised in *The Charlton County Herald*



an e-mail list of stakeholders was kept up to date, including all attendees who wrote their e-mail addresses on the sign-in sheet at each meeting and any other interested parties. Further reminders of meetings were provided as needed through reminder e-mails, telephone calls, and in-person communication. Meeting notices and other announcements regarding the plan update were also posted on the Southern Georgia Regional Commission and the Charlton County Emergency Management Agency.

*The Charlton County HMPUC decided on the following Mission Statement and Vision Statement in the original plan and re-confirmed them in this update to help guide them through the planning process.*

**Charlton County/City of Folkston/City of Homeland**  
**Hazard Mitigation Plan Update Committee**  
**Mission Statement**

This committee's mission is to make Charlton County, the City of Folkston, the City of Homeland, its citizens, local governments, communities, residences, and businesses less vulnerable to all hazards. This will be accomplished through the effective administration of Hazard Mitigation Programs, hazard risk assessments, wise floodplain management, and a coordinated approach to mitigation policy through the state, regional, and local planning activities.

**Charlton County/City of Folkston/City of Homeland**  
**Hazard Mitigation Plan Update Committee**  
**Vision Statement**

This committee's vision is to institutionalize a local Hazard Mitigation ethic through leadership, professionalism, and excellence, thus leading the way to a safe, sustainable, Charlton County, City of Folkston, and the City of Homeland.

Due to Charlton County, the City of Folkston, and the City of Homeland being such close-knit communities, the Charlton County HMPUC chose not to break into subcommittees but to address issues as a whole group. Various members of this group had direct knowledge of Charlton County, City of Folkston, and City of Homeland infrastructure and agencies, emergency planning, hazard planning, and the running of central departments and emergency services. Through their efforts, this Plan was developed.

The Charlton County HMPUC was responsible for identifying natural hazard events, completing a profile, and updating the Georgia Mitigation Information System (GMIS) Critical Facilities Inventory (please see <https://www.itos.uga.edu/gema>). They also reviewed and updated the Mitigation Goals, Objectives, and Action Steps.

### **Section III**

## **Plan Review, Analysis, and Revision Method**

For the plan update, the Charlton County Hazard Mitigation Plan Update Committee (HMPUC) reviewed all chapters and sections of the original plan. It updated them (as appropriate) using National, State, and Local sources. The wildfire section(s) was updated using the Georgia Forestry Commission's Charlton County "Community Wildfire Protection Plan." The Hazard Mitigation Plan includes the following hazards: Hurricane/Tropical Storm, Flood/SLOSH, Wildfire, Tornado, Thunderstorm/Wind, Severe Winter Storm, Hail, Drought, Lightning, Extreme Heat, and Public Health Emergency. Other chapters and sections were updated using the Charlton County/City of Folkston/City of Homeland Comprehensive Plan-Five-Year Short-Term Work Program, State of Georgia Hazard Mitigation Plan, the Charlton County Flood Insurance Study (Charlton County does not have a Flood Mitigation Assistance Plan), and information from the National Climatic Data Center (NCDC), as well as HAZUS. The HMPUC reviewed these documents before incorporating them into the Hazard Mitigation Plan. Relevant information from these plans and records was incorporated into this Hazard Mitigation Plan by first examining the plans and documents, then identifying all pertinent information. Then the relevant information was reviewed through open discussion by the HMPUC, then SGRC staff incorporated that information into this plan when preparing the plan document.

After organizing resources, an update of the risk assessment was performed. New forms, worksheets, and data (included in the Appendices) were also completed. Afterward, the Mitigation Goals, Objectives, and Action Steps were reviewed to determine if they would remain the same, be added to, modified, or removed. New Goals, Objectives, and Action Steps were added to include new hazards.

Besides the previous Hazard Mitigation Plan, the following plans and documents were consulted, and their relevant goals and objectives were included as appropriate in this Hazard Mitigation Plan:

- The Wildfire section was updated using the Georgia Forestry Commission's "Community Wildfire Protection Plan" (see Appendix C). The CWPP was consulted to ensure consistency between the CWPP and HMP, and all action items from the CWPP that were still relevant were included as action steps in the HMP.
- Land use descriptions, zoning information, and community services were updated using the current joint Comprehensive Plan for the County and Cities.
- The State of Georgia Hazard Mitigation Plan was consulted to ensure this local Hazard Mitigation Plan would be consistent with the state's plan.
- Information and data from the National Climatic Data Center (NCDC) were used to create the Hazard Frequency Table and associated information regarding each hazard, which can be found in Chapter 2.

## **Section IV**

### **Organization of the Plan**

This Plan focuses on ten (10) natural hazards and one (1) technological/man-made hazard chosen by the Charlton County HMPUC that may affect and cause damage to Charlton County, the City of Folkston, and the City of Homeland. Chapter 2 and Chapter 3 are subdivided into Sections I through XI; these sections reflect the chosen ten natural hazards plus the one man-made hazard.

- I: Hurricane/Tropical Storm,
- II: Flood/SLOSH,
- III: Wildfire
- IV: Tornado
- V: Thunderstorm/ Wind VI:  
Severe Winter Storm VII:  
Hail
- VIII: Drought
- IX: Lightning
- X: Extreme Heat
- XI: Public Health Emergency

All (11) of these hazards are an equal threat to all geographic areas of the community. Other natural hazards such as Seismic, Landslide, sinkholes, and Dam were examined and determined to be non-factors in Charlton County, the City of Folkston, and the City of Homeland based on history and information contained in Appendix F. These events have not occurred in the community and are not expected to occur; therefore, they are not included in this plan.

This Plan also contains a Hazard, Risk, and Vulnerability (HRV) Assessment (see Appendix A), a comprehensive range of Mitigation Goals, Objectives, and Action Steps (Chapter 3), and other information on the Implementation of the Action Plan, Monitoring and Plan Update and Maintenance (see Chapter 4) and other FEMA required items and materials (Various Chapters, Sections & Appendices).

The Charlton County EMA Director has been assigned to complete the comprehensive range of Mitigation Goals, Objectives and Action Steps, and other pertinent items and reports in this Plan.

The Charlton County, the City of Folkston, and the City of Homeland Hazard Mitigation Plan exist in one volume with various papers and documents and a single PDF available on the SGRC website. The planning efforts of Charlton County, the City of Folkston, and the City of Homeland are meant to be an ongoing process. Therefore, the Plan is intended to be amended as appropriate.

Copies of the Plan are on file and may be examined at the Charlton County Commission Offices, Folkston City Hall, Homeland City Hall, Charlton County Emergency Management Agency, Charlton County Public Library, Southern Georgia Regional Commission (as well as the SGRC website), and at the Georgia Emergency Management Agency (GEMA-HS).

## **Section V**

### **Local Hazard, Risk and Vulnerability (HRV) Summary, Local Mitigation Goals and Objectives**

The Charlton County HMPUC determined that the eleven hazards established in the 2018 Plan Update were still the most significant threat to Charlton County, The City of Folkston, and the City of Homeland.

A Hazard, Risk, and Vulnerability (HRV) Assessment have been formulated through various information obtained during the planning process. Data has been obtained from websites, published sources, and personal accounts regarding hazards, history in the community, and when & where they were active. These information resources are discussed throughout this plan and may also be seen in various Appendices.

The vulnerability of Charlton County, the City of Folkston, and the City of Homeland to natural hazards (including types, numbers, and value of properties) is included in the GEMA Worksheet #3A: Inventory of Assets (contained in Appendix A), the GMIS Critical Facilities Inventory (see Appendix F), and the GEMA Worksheet: Charlton County/City of Folkston/City of Homeland PDM Hazard Frequencies Table (see Appendix D).

A description that identifies and analyses a comprehensive range of Mitigation Goals, Objectives, and Action Steps to reduce the effects of each hazard (based on risk assessment findings) is included in Chapter 3, Sections I-X. In addition, in Chapter 4 Section I, there is a description related to the prioritization of these Mitigation Goals, Objectives, and Action Steps through the use of cost/benefit analysis, STAPLEE (Social, Technical, Administrative, Political, Legal, Economic, and Environmental), and other criteria.

In Chapter 4, there are sections on Implementing the Action Plan (see Section I), Evaluation and Monitoring (see Section II), and Plan Update and Maintenance (see Section III). In addition, each jurisdiction has identifiable comprehensive ranges of Mitigation Goals, Objectives, and Action Steps contained in Chapter 3, Sections I-XI, and Chapter 4, Section I.

## **Section VI**

### **Multi-Jurisdictional Special Considerations**

According to the Georgia Statistics System, Charlton County has approximately 783 square miles of total area, with 8.8 square miles being water. ([www.georgiastats.uga.edu](http://www.georgiastats.uga.edu)). Certain services, including emergency services, may be located some distance from population centers.

Charlton County (2020 estimated population: 12,518) has two incorporated Cities, Folkston (estimated population: 5,307) and Homeland (estimated population: 886), plus the unincorporated communities of Saint George (2010 estimated population 2,841) and the much smaller communities of Moniac and Winokur. The distance from the county's north end to the south is approximately 50 miles by road. The distances between population centers create challenges for emergency services and other services. The county's northwest area includes over 200 square miles of the Okefenokee Swamp, with a very sparse population and some areas that cannot be accessed

by road from the eastern part of the County. The southern part of the County is adjacent to Nassau and Baker Counties in Florida and has experienced population growth associated with the development of the Jacksonville Metropolitan Area. A significant population lives within what can be characterized as the “wildland-urban interface” (WUI) and is exposed to wildfire risk.

All Charlton County, the City of Folkston, and the City of Homeland may be affected by wildfire. Geographical differences are not dependent on jurisdiction as on land use and fire district resources.

Volunteers staff all five (5) Fire Department properties in Charlton County. The county has zero (0) full-time fire departments. However, it now maintains a full-time Fire Chief and Assistant Fire Chief position. Having a full-time Fire Chief and an assistant, affects the overall safety of the residents and report the dangerous or hazardous conditions that we are attempting to report and plan Hazard Mitigation for here. In addition, the City of Folkston and the City of Homeland do not have fire departments.

The following relates to the ISO Classes of Charlton County, the City of Folkston, and the City of Homeland. Regarding ISO Documentation:

#### CHARLTON COUNTY

Station 1: Folkston Class 5/9

Station 2: St. George: Class 5/9

Station 3: Racepond: Class 5/9

Station 4: GA Bend: Class 5/9

Station 5: Winokur: Class 5/9

Chapter 2, Sections I-X, and Chapter 3, Section I, multi-jurisdictional differences for each hazard are described.

## **Section VII**

### **Adoption, Implementation, Monitoring, and Evaluation**

After all plan development workshops were concluded, the draft plan was submitted to all local governments for review. The draft plan was then submitted to GEMA for review and approval. After their approval and recommended changes, a second and final public hearing was held on \_\_\_\_\_ to provide a further opportunity for public comment and review. The plan was then sent to FEMA for their review. Resolutions adopting the plan were passed on \_\_\_\_\_ (Charlton County), \_\_\_\_\_ (City of Folkston), and \_\_\_\_\_ (City of Homeland). Copies of the public hearing advertisements and resolutions are available in Appendix E.

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (see Chapter 4), which contains items related to all local governments, will be implemented as soon as possible and/or as funds become available.

The County Emergency Management Agency will monitor and evaluate all plan sections annually. Incremental accomplishments of Mitigation Goals Objectives and Action Steps will be

reported to the public through appropriate means (website, social media, local newspapers, City Council meetings, County Commission meetings, etc.).

The county EMA will monitor the plan by conducting quarterly telephone interviews with the various local governments and area agencies to chart their plan progress. Also, a series of informal meetings will be held throughout the year in which multiple aspects of the plan are discussed. In addition, annual evaluations of the plan will take place on or near the anniversary of the plan's adoption date. The annual review will assess which of the goals, objectives, and action steps have been achieved; whether those goals, objectives, and action steps still address current and expected conditions; whether the nature or magnitude of risks has changed; whether existing resources are appropriate for implementing the plan; and whether agencies and other parties have participated as initially proposed.

During this annual evaluation, problems (if any) with completing the action steps will be discussed, methods of resolving those problems (if any) will be formulated, the action steps will be updated (if necessary), and new actions steps will be developed (if required) in response to new problems that have developed throughout the year. If any changes or updates are needed to the other sections of the plan, they will also be discussed and noted. Critical Facilities and infrastructure changes and updates will also be addressed and added to the online GEMA database. New hazards in the area (if any) will be addressed and planned, and an assessment will be made as to whether the community needs to dictate additions to the plan's materials. During annual plan maintenance, the public will be involved through open meetings to the public. The annual evaluation of the plan will be discussed at City Council and County Commission meetings. This will be listed on the meeting agenda to inform the public.

The primary criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

The Plan will be updated by the EMA Director and chosen representatives of all local governments every five years, as FEMA requires. All sections of this Plan will be updated at that time. All jurisdictions and relevant stakeholders will review the Plan update. The requirements of this Hazard Mitigation Plan will be considered and incorporated into Comprehensive Plans, Capital Improvement Plans, Local Emergency Operations Plans, and all other such Plans, as appropriate. This updating process will be publicly advertised, and public comments solicited and incorporated as necessary.

## Section VIII Community Data

### Analysis of Data and Information

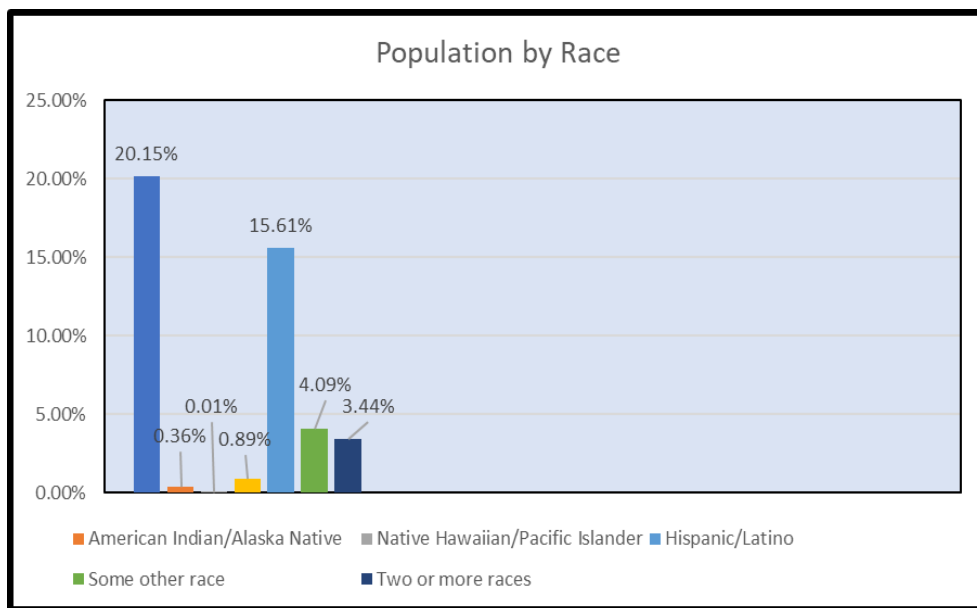
(Data was provided by the US Census Bureau's 2020 Census data and are estimates only)

#### Charlton County

##### **Population by Race**

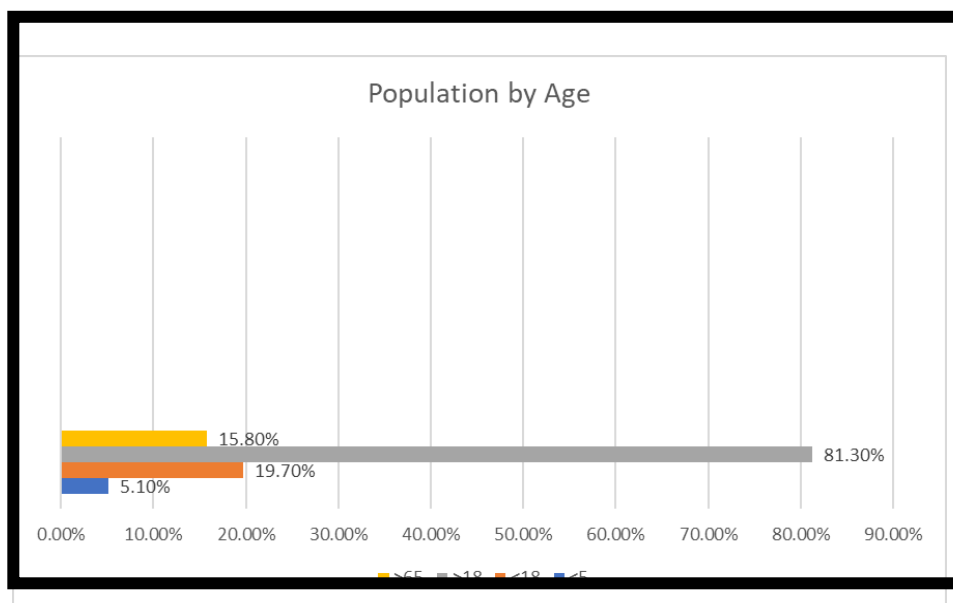
The estimated 2020 population of Charlton County is 12,766. This increased by 595 residents since

2010, indicating a stable, slightly growing population. 67.06% of the people are White, 20.15% are Black or African American, 0.36% are American Indian/Alaska Native, 0.01% are Native Hawaiian/Pacific Islander, 0.89% are Asian, and 15.61% are Hispanic or Latino. 4.09% of Charlton County's population are some other races, and 3.44% are two or more races.



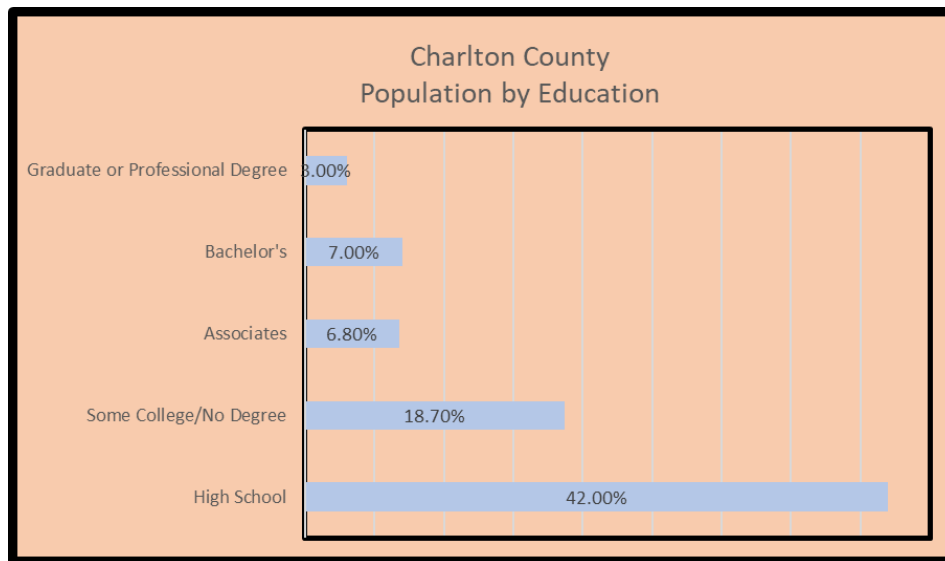
### Population by Age

The median age in Charlton County is 40.5, compared with Georgia's median age of 36.9. 5.1% of the population are under five years of age, 19.7% are under 18 years of age, 81.3% are over the, and 15.8% are 65 years and over.



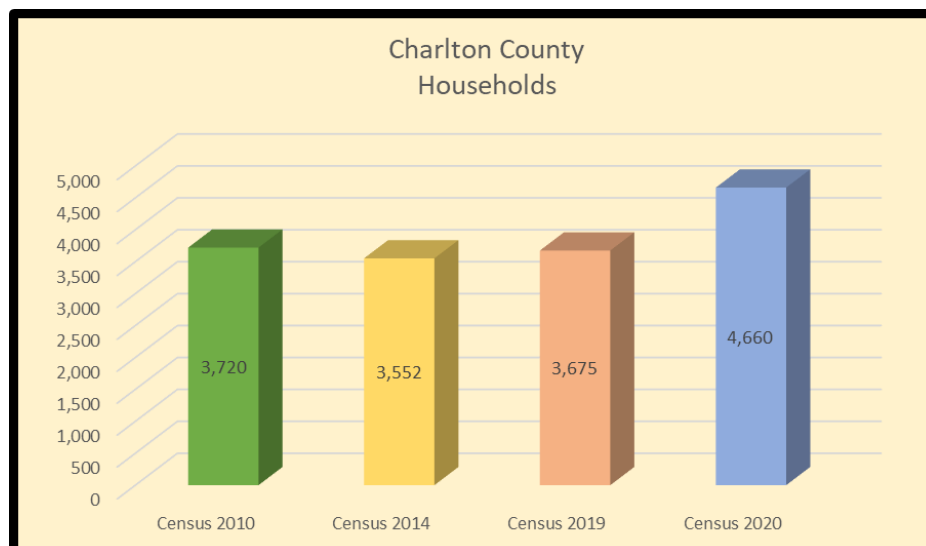
### Population by Education

42.0% percent of the people in Charlton County have a High School or equivalent degree, 18.7% have some college with no degree, 6.8% have an Associate's Degree, 7.0% have a Bachelor's Degree, and 5.8% have a Graduate or Professional Degree.



### Households

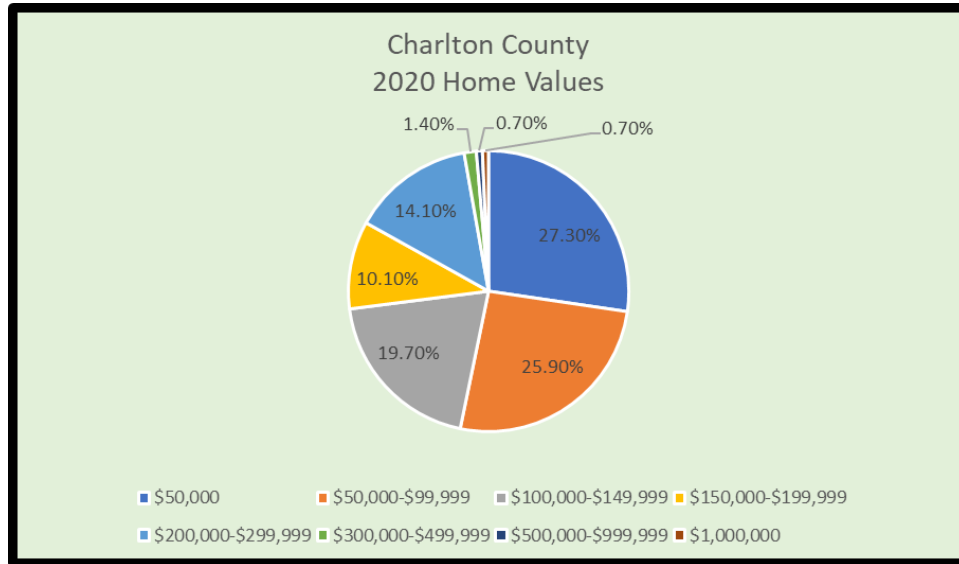
From 2010 to 2014, households decreased from 3,720 homes to 3,552 families. In 2019 there was a slight increase in Charlton County of 3.46% households. In 2020 households increased by another 26.80%. There were 667 vacant housing units in Charlton County in 2020.





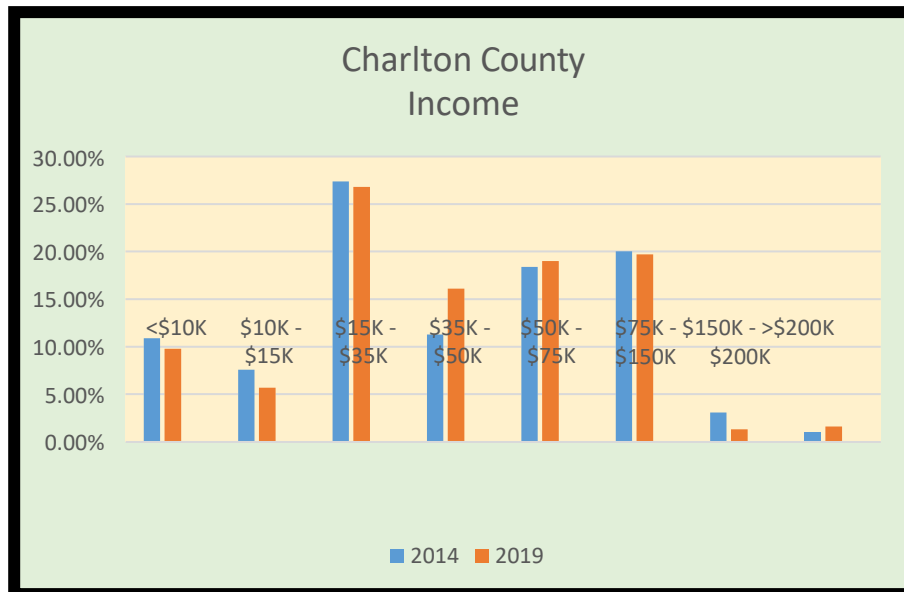
## Home Values

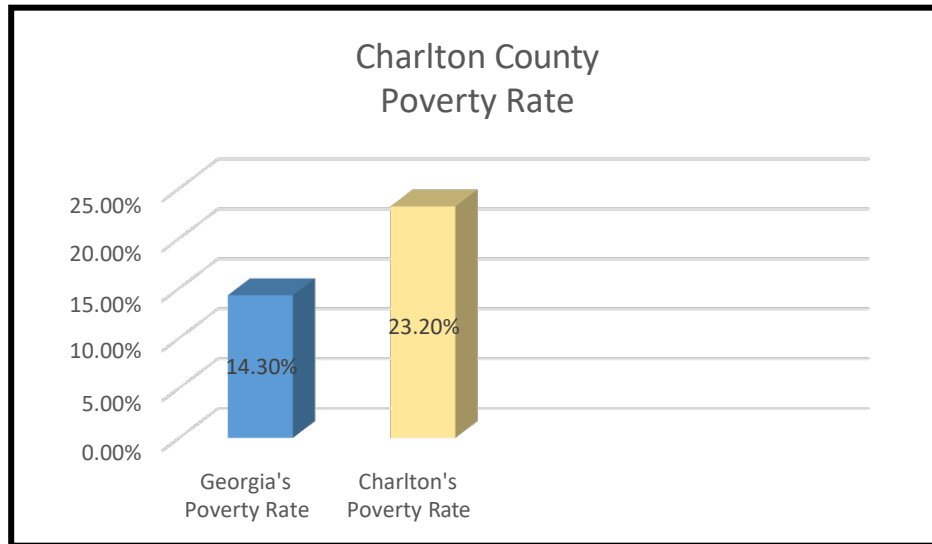
Less than 27.3% of homes are valued at \$50,000, 25.9% are valued at \$50,000 to \$99,999, 19.7% of all homes in Charlton County are valued at \$100,000 to \$149,999, 10.1% are valued at \$150,000 to \$199,999, 14.1% are values at \$200,000 to \$299,000, 1.4% are valued at \$300,000 to \$499,999, 0.7% are valued at \$500,000 to \$999,999, and 0.7% are valued at \$1,000,000 or more. 71.2% of the home are owner-occupied, with 64.06% of home ownership in Georgia.



## Income and Poverty

The 2020 median household income in Charlton County was \$42,743, a slight increase of 1.86% in one year. However, Charlton County is still a bedroom community to Waycross and Jacksonville. 23.2% of those living in Charlton are in poverty, while Georgia's poverty rate in 2020 was 14.3%.

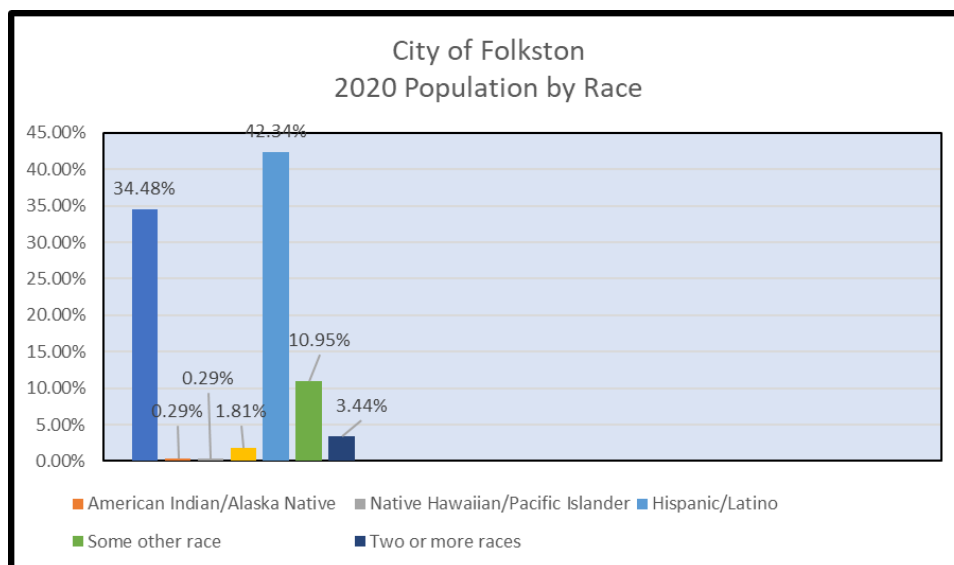




### City of Folkston

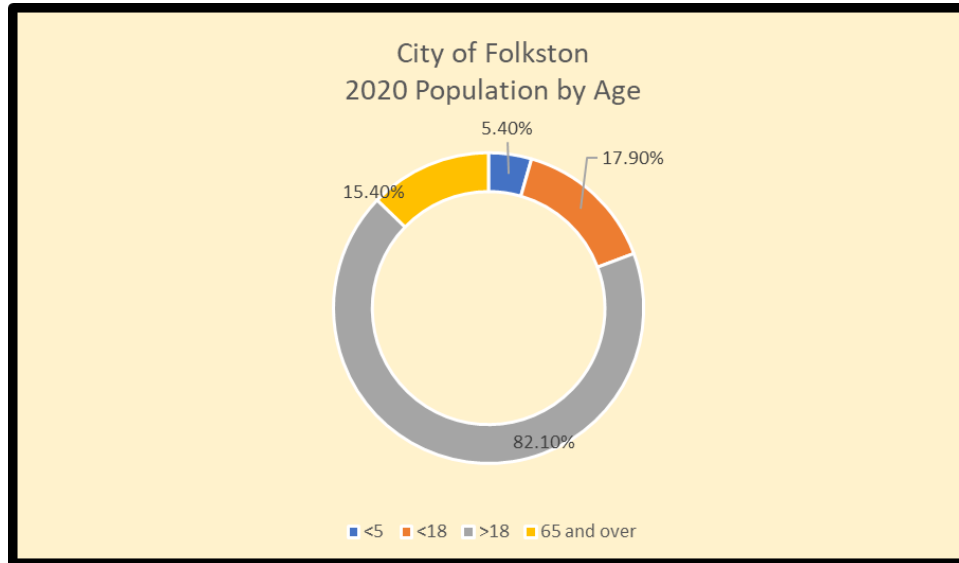
#### Population by Race

The estimated population for 2019 was 5,037, an increase of 7.81% from 2018, indicating a relatively stable population. However, in 2020 there was a decline in people, with 4,464 people in the City of Folkston. Approximately 50.52% of the people in the City of Folkston are white, and 34.48% are black; 0.29% are American Indian/Alaska Native, 1.81% are Asian, and 42.34% are Hispanic or Latino. 10.95% of Charlton County's population are some other races, and 1.95% are two or more races.



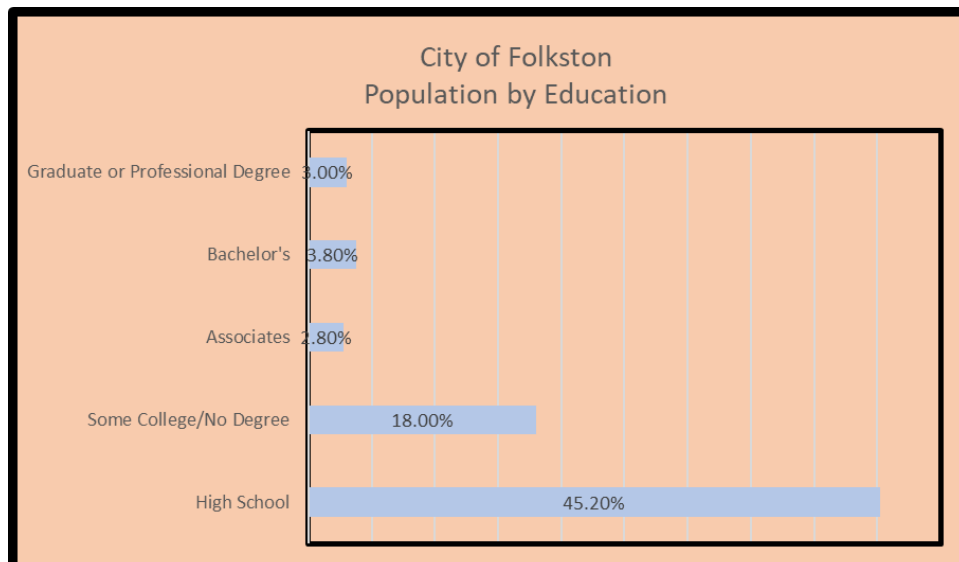
### Population by Age

The median age in the City of Folkston is 40.5%. 5.4% of the population are under five years of age, 17.9% are under 18, 82.1% are over 18, and 15.4% are 65.



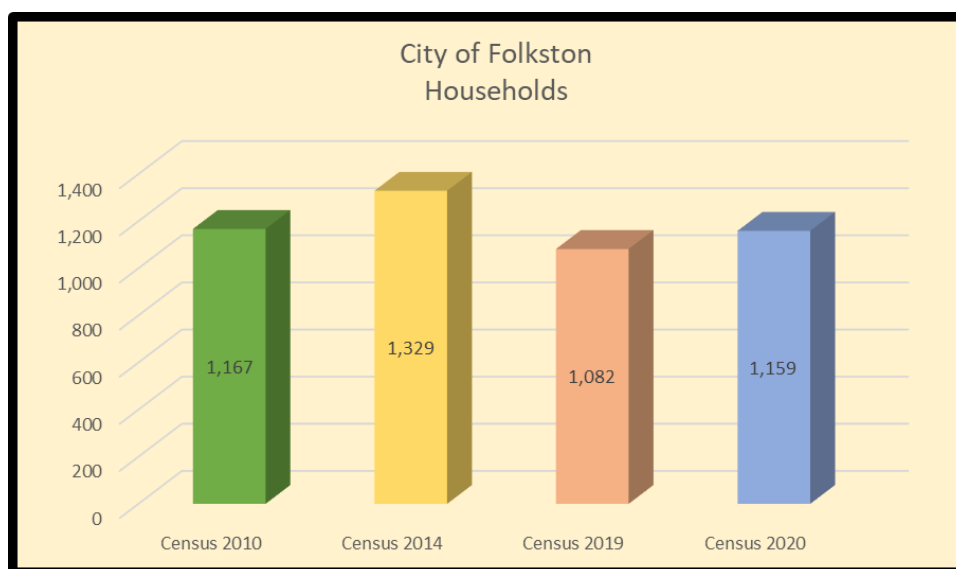
### Population by Education

45.2% percent of the people in Folkston have a High School or equivalent degree, 18.0% have some college/with no degree, 2.8% have an Associate's Degree, 3.8% have a Bachelor's Degree, and 3.0% have a bachelor's degree a Graduate or Professional Degree.



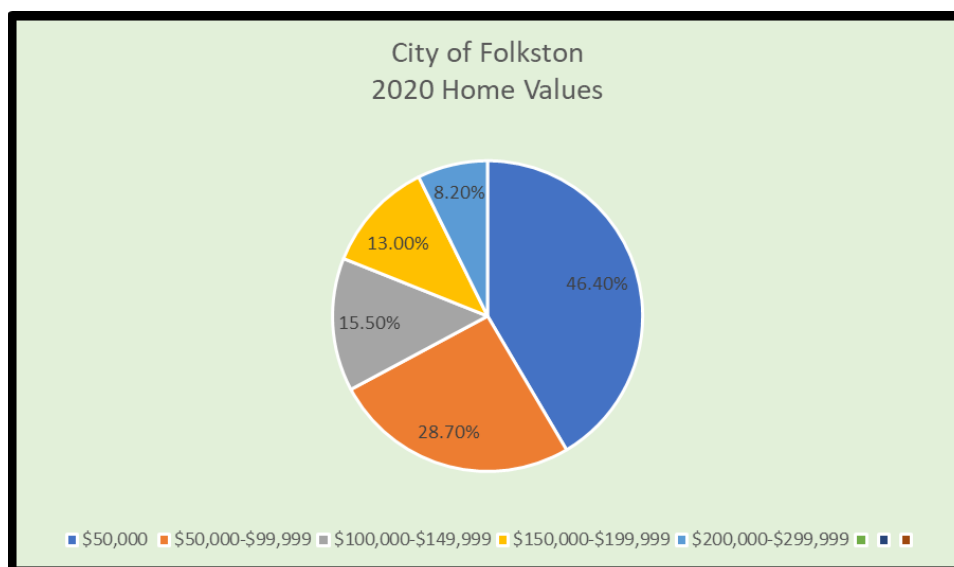
## Households

From 2010 to 2014, households increased from 1,167 to 1,329 homes. In 2019 there was a decrease in Folkston to 1,082 households 2020, households slightly increased to 1,159, still somewhat less than the 2014 estimated households. There were 137 vacant housing units in Folkston in 2020.



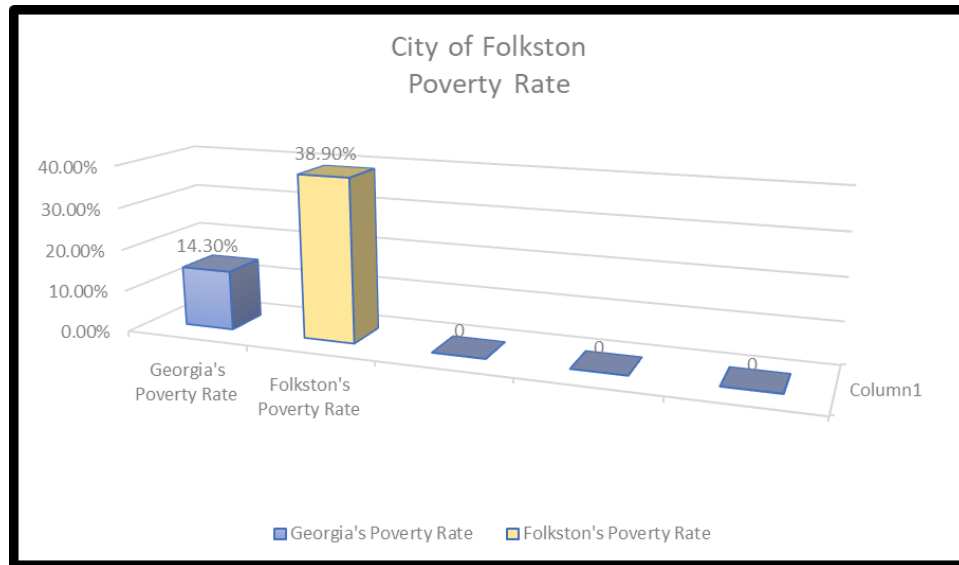
## Home Values

Approximately 46.4% of the homes in Folkston are valued at less than \$50,000, about 28.7% are valued between \$50,000 and \$99,000, 15.5% of the housing stock is valued between \$100,000-\$149,999, 1.3% are values between \$150,000 to \$199,999, and 8.2% are valued between \$200,000 to \$299,999. There were 865 occupied housing units in 2020.



### Income and Poverty

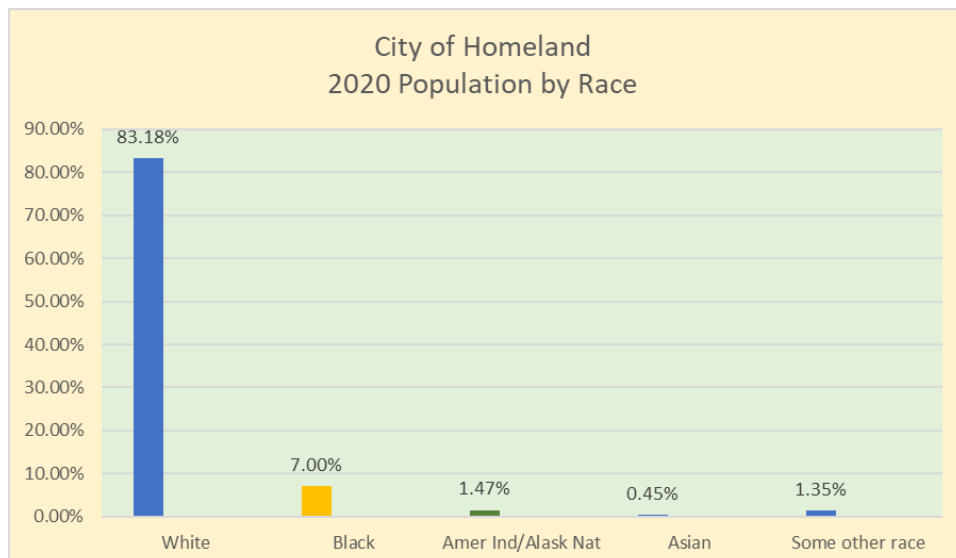
The 2020 median household income in Folkston is approximately \$24,485. 38.9% of people living in Folkston are in poverty. This is a much higher rate than Georgia's 2020 poverty rate of 14.3%



### City of Homeland

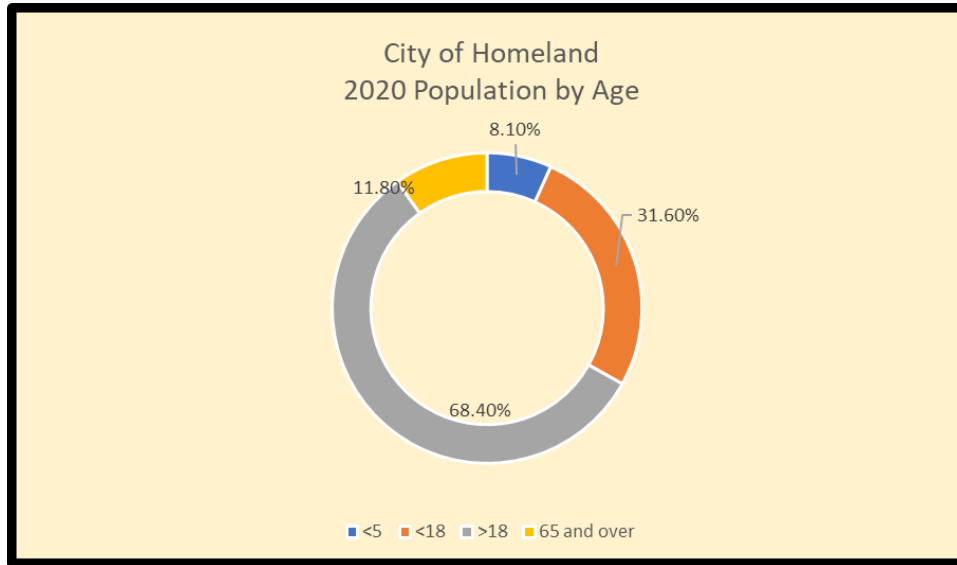
#### Population by Race

Between 2018 and 2019, the population of Homeland, GA, grew from 939 to 1,025, a 9.16% increase. However, in 2020 it was estimated that the number of people had decreased to 886. The City of Homeland's population is approximately 83.18% white and 7.0% black, 1.47% are American Indian and Alaska Native, 0.45% are Asian, and 1.35% are other races.



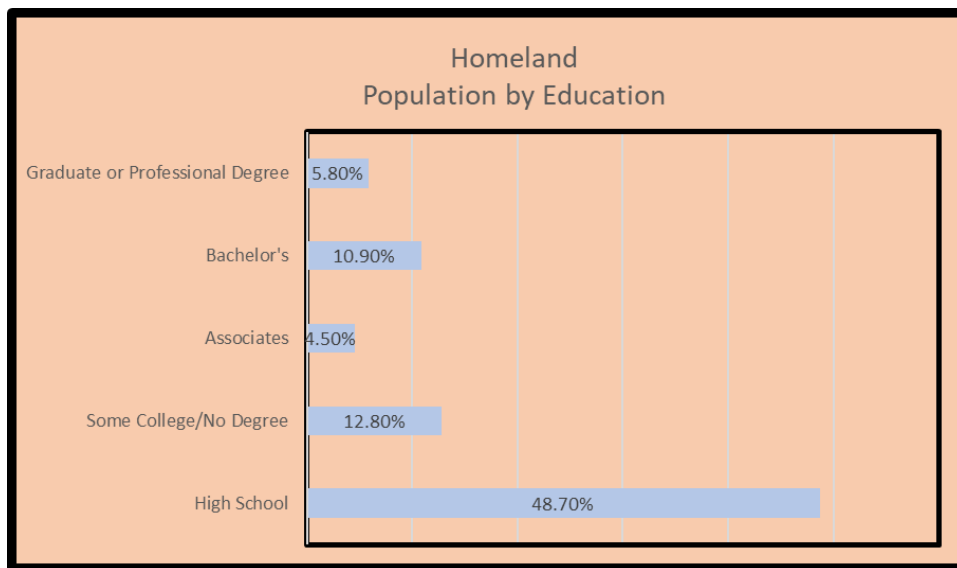
### Population by Age

The median age in the City of Homeland is 36.9%. 8.1% of the population are under five years of age, 31.6% are under 18, 68.4% are over 18, and 11.8% are 65 years and over.



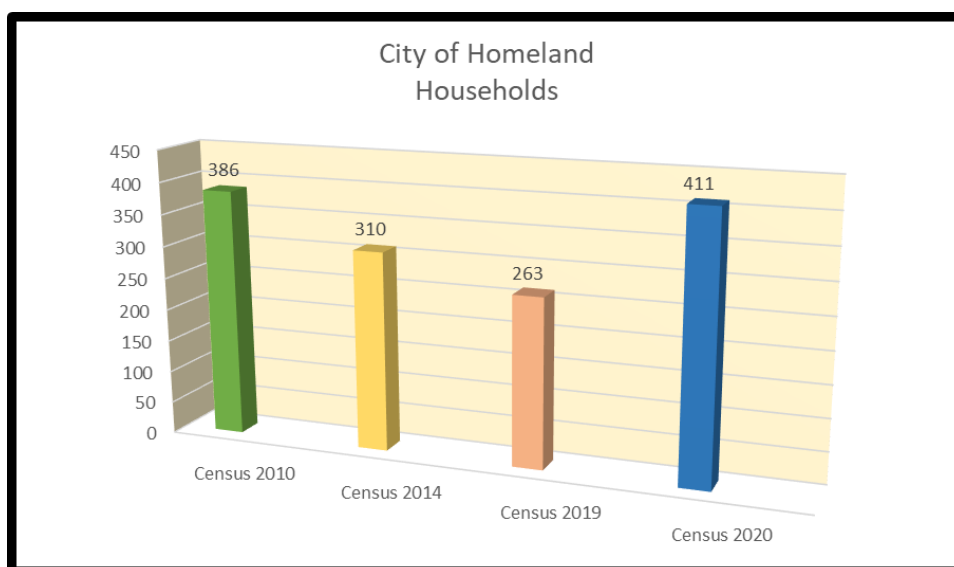
### Population by Education

48.7% percent of the people in Homeland have a High School or equivalent degree, 12.8% have some college/with no degree, 4.5% have an Associate's Degree, 10.9% have a Bachelor's Degree, and 1.0% have a Graduate or Professional Degree.



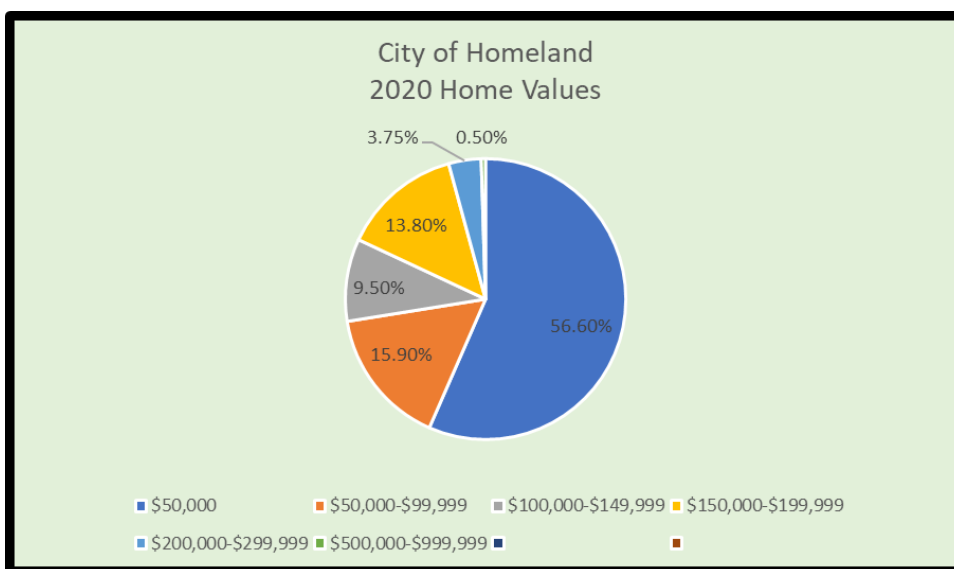
## Households

From 2010 to 2014, households decreased from 386 to 310. In 2019 there was a steady decline with only 263 homes. In 2020 the number of housing units increased to 411, 56.27% more than the 2019 estimated households. There were 89 vacant housing units in Homeland in 2020.



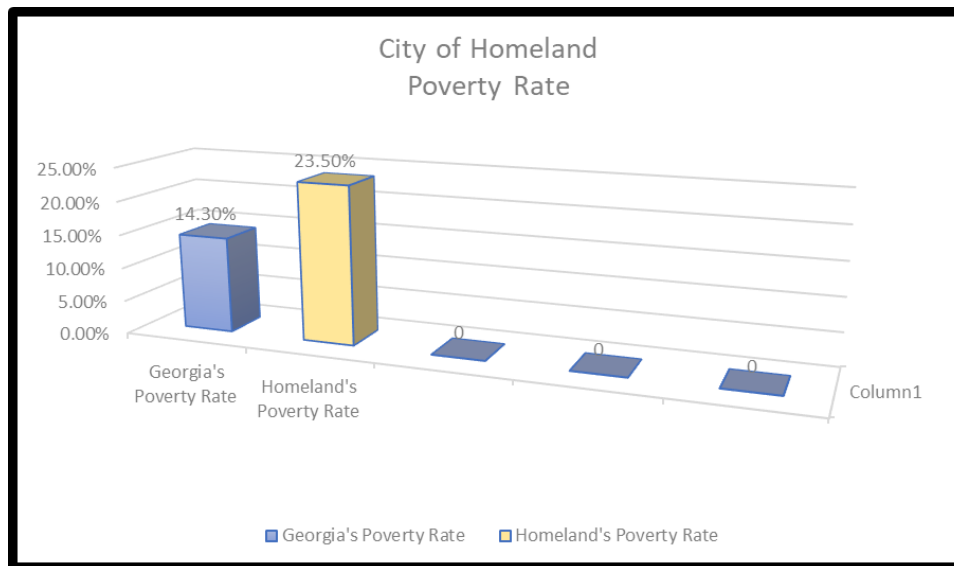
## Home Values

Approximately 56.6% of the homes in Folkston are valued at less than \$50,000, about 15.9% are valued between \$50,000 and \$99,999, 9.5% of the housing stock is valued between \$100,000-\$149,999, 13.8% are values between \$150,000 to \$199,999, 3.75% are valued between \$200,000 to \$299,999, and 0.5% are valued a \$500,000 to \$999,999. There were 322 occupied housing units in 2020.



### Income and Poverty

The 2020 median household income in Homeland is approximately \$42,813. 23.5% of people living in Homeland are in poverty. This is a higher rate than Georgia's 2020 poverty rate of 14.3%





## **Chapter #2:** **Local Natural Hazard, Risk,** **and** **Vulnerability (HRV) Summary**

### Summary of changes:

Table 2.1 provides a brief description of each section in this chapter and a summary of changes made.

<b>Chapter 2 Section</b>	<b>Updates to Section</b>
I. Hurricane/Tropical Storm	Updated data and information; edited for clarity
II. Flood/SLOSH	Updated data and information; edited for clarity
III. Wildfire	Updated data and information; edited for clarity
IV. Tornado	Updated data and information; edited for clarity
V. Thunderstorm/Wind	Updated data and information; edited for clarity
VI. Severe Winter Storm	Updated data and information; edited for clarity
VII. Hail	Updated data and information; edited for clarity
VIII. Drought	Updated data and information; edited for clarity
IX. Lightning	Updated data and information; edited for clarity
X. Extreme Heat	Updated data and information; edited for clarity
XI. Public Health Emergency	Updated data and information; edited for clarity

Table 2.1: Overview of updates to Chapter 2

Using GEMA Worksheet #1: Identify the Hazard (copy contained in Appendix D), the FEMA described methodology and other factors, and various data were collected (see various Appendices). First, the Charlton County HMPUC listed all of the hazards that may occur. Afterward, they focused on the hazards commonly recognized as threats to the jurisdictions that were the most prevalent and most likely to occur and cause damage in Charlton County, the City of Folkston, and the City of Homeland.

All of these hazards are an equal threat to all geographic areas of the community. Of the remaining two, Flood/SLOSH and Wildfire are the only spatially definable hazards chosen by Charlton County, the City of Folkston, and the City of Homeland.

Wildfire maps and other information have been produced through the Georgia Forestry Commission's "Community Wildfire Protection Plan" for Charlton County (see Appendix C).

### Summary of Changes to Potential Loss Values:

The Residential values are based on U.S. Census data using the median value of owner-occupied housing units in Charlton County, 2020, of \$87,200.00 (see Appendix B). The Charlton County Tax Assessor assigns the value.

In the GMIS Critical Facilities Inventory appearing online at <https://www.itos.uga.edu/gema> and

Appendix A, we estimate the potential losses to the Critical Facilities and Infrastructure. In addition, when available, we calculate many values related to disaster losses, including replacement costs, content loss, displacement costs, and other values.

Damage to crops is not considered in any of these figures. According to the most recent statistics (2020) on The University of Georgia's Website [www.georgiastats.uga.edu](http://www.georgiastats.uga.edu) (Georgia County Guide), Poultry/Eggs, Row & Forage Crops, Livestock/Aquaculture, Forestry & Forest Products, Vegetables, Ornamental & Horticultural, Fruits & Nuts and Other including Agritourism account for a total Farm Gate Value total of approximately \$19,774,022.

#### Land Use and Development Trends with All Hazards:

The City of Folkston, City of Homeland, and Charlton County, have adopted the 2018 NEC and updates, including the International Electrical & Plumbing & Mechanical Codes, in January 2018. The cities and counties have also adopted the 2012 International Building Code and the 2012 International Property Maintenance Code with subsequent amendments.

Charlton County has enacted a subdivision ordinance but has no zoning in place. The City of Folkston does have zoning in place, and the City of Homeland does not have zoning. The County now has a Code Enforcement Officer/Building Inspector who serves the cities on requests.

## **Section I**

### **Hurricanes/Tropical Storms**

#### **A. Identification of Hazard:**

The Charlton County HMPUC has chosen the threat of Hurricanes/Tropical Storms as one of the most likely hazards to occur & cause damage in Charlton County, the City of Folkston, and the City of Homeland based on experience, the FEMA described methodology, and other factors. In addition, historical data has been examined from various sources (see Appendix A Section I, the National Climatic Data Center (see Appendix F), and local history and personal accounts to determine the frequency of events.

Tropical Cyclones are the general term for all circulating weather systems over tropical water. Tropical Cyclones are destructive and can cause significant damage and loss of life and are divided into four major types: Tropical Disturbance, Tropical Depressions, Tropical Storms, and Hurricanes.

A Tropical Disturbance is a discrete tropical weather system of apparently organized convection originating in the tropics or subtropics, having a non-frontal migratory character, and maintaining its identity for 24 hours or more. Tropical Depressions are an organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph.

Tropical Storms are an organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 50 to 73 mph.

# Saffir-Simpson Hurricane Wind Scale

All hurricanes are dangerous, but some are more so than others. The storm surge, wind, and other factors determine the hurricane's total destructive power. The Saffir-Simpson Hurricane Wind Scale is designed to help determine wind hazards of an approaching hurricane easier for emergency officials. The scale is assigned five categories, with Category 1 assigned to a minimal hurricane and Category 5 to a worst-case scenario. Categories 3 to 5 are defined as major hurricanes. The criteria for each category are shown below. The [National Hurricane Center](https://www.nhc.noaa.gov/aboutgloss.shtml) has additional information on the [Saffir-Simpson Hurricane Wind Scale](https://www.nhc.noaa.gov/aboutgloss.shtml).

CATEGORY	WINDS (MPH)	DAMAGE
1	74-95	<b>Minimal:</b> Damage to building structures possible, primarily to unanchored older model mobile homes. Damage to poorly constructed signs, shrubbery, and trees. Loose outdoor items become projectiles. Numerous power outages.
2	96-110	<b>Widespread from very strong winds:</b> Some roofing material, door, and window damage to buildings. Considerable damage to trees, vegetation, mobile homes, and piers. A number of high rise building glass windows dislodged to become projectiles. Widespread power outages up to several days.
3	111-129	<b>Extensive from dangerous winds:</b> Some structural damage to small residences and utility buildings with minor amount of wall failures. Mobile homes destroyed. Many trees uprooted or snapped. Power outages lasting several days or weeks.
4	130-156	<b>Devastating from extremely dangerous winds:</b> Some wall failures with complete house roof structure failures. Extensive damage to doors, windows, and trees. Electricity unavailable for weeks.
5	>156	<b>Catastrophic:</b> Complete roof failure on many residences and industrial buildings. Some complete building failures with small buildings blown over or away. Power outages for weeks or months.

(Source: NOAA <http://www.nhc.noaa.gov/aboutgloss.shtml>)

Hurricane/Tropical Storm season in Georgia is officially from June 1 through November 30, but they may occur slightly before or after those dates.

Whether the Hurricane/Tropical Storm is a short-term or long-term event depends on the category, strength, speed, and impact of other weather systems, including fronts and wind patterns.

Because of its location, Charlton County, Folkston, and the City of Homeland are vulnerable to severe Hurricanes/Tropical Storms forming in the Atlantic Ocean and the Gulf of Mexico. Also, because of their location, Hurricanes may degrade into Tropical Storms, Tropical Depressions, or Tropical Disturbances by the time they reach Charlton County, the City of Folkston, and the City of Homeland. Or, the Tropical Storms, Depressions, or Disturbances may never reach Hurricane strength before making shore. These may or may not contain Tornadoes or Hail. The effects vary depending on the severity of the Hurricane/Tropical Storm and the duration of the event.

## B. Profile of Hurricane/Tropical Storm Events, Frequency of Occurrences, Probability:

Hurricanes/Tropical Storms' historical record is spotty at best, with many unreported and underreported events. Charlton County, the City of Folkston, and the City of Homeland are vulnerable to Hurricanes/Tropical Storms due to their proximity to the coasts of the Atlantic Ocean and the Gulf of Mexico. The effects of the hazard are usually substantial.

The Charlton County HMPUC has witnessed many unreported and underreported tropical events occurring in Charlton County, Folkston, and the City of Homeland.

Charlton County (Including the Cities of Folkston and Homeland):

Four Hurricane/Tropical Storm events have occurred since the first Hazard Mitigation Plan was completed in 2014. On Sept. 1, 2016, Tropical Storm Hermine caused widespread flooding, wind gusts up to 55 mph, and impassable roads due to downed trees and storm debris. On Oct. 6, 2017, Tropical Storm Matthew caused widespread flooding, wind gusts up to 55 mph, and impassable roads due to downed trees and storm debris. On Sept. 10-11, 2017, Tropical Storm Irma caused widespread major flooding in Charlton County. The St. Marys River set a record flood stage at 19.30 ft on Sept. 15th at 1445 EDT at Traders Hill. Major flooding occurred at this level. Storm total rainfall included 9.3 inches 10 miles SW of Folkston, 9.85 inches in Homeland, and 4.66 inches 3 miles SSW of Folkston. Hurricane Michael made landfall along the Florida panhandle near Panama City on the afternoon of October 18 as an extremely dangerous Category 5 hurricane. It quickly exited the State of Florida on October 11<sup>th</sup> and became a tropical storm. Charlton County had wind gusts of 40-45 with this storm. Tropical Storm Elsa occurred on July 7, 2021, which caused portions of Hwy 94 to flood between Fargo and Moniac.

According to the NOAA Storm Events Database (see Appendix F), nine reports of Hurricane/Tropical Storms occurred in Charlton County (including the Cities) between 01/01/1950 and 12/31/2017. Adding the tropical storms of 2018 and 2021 would bring the total to 11 Hurricane/Tropical Storms. The Historic Recurrence Interval is 17.5 years. This is a 5.63% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.4, the one-time 20-year frequency is 0.2, and the past 50-year frequency is 0.08 (see the Hazard Frequency Table in Appendix D).

Although complete available data were used for this analysis, the possibility remains that other hurricane/tropical storm events may have occurred in the community that went unreported or underreported.

Since the previous plan was completed, no changes have affected the community's overall vulnerability to the hazard.

See also the HAZUS report included in Appendix G.

**C./D. Inventory of Assets Exposed and Potential Loss to Hurricanes/Tropical Storms:**

The threat of Hurricanes/Tropical Storms is usually limited to the time around Hurricane/Tropical Storm Season (June 1 through November 30).

In Worksheet 3A: Inventory of Assets appearing in Appendix A Section I, we estimate that Charlton County, Folkston, and the City of Homeland are vulnerable to Hurricanes/Tropical Storms.

Charlton County (Including the Cities of Folkston and Homeland):

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Charlton County and the Cities of Folkston and Homeland are equally vulnerable to this hazard. Due to the lack of data broken down by jurisdiction, it was impossible to obtain these data at the jurisdictional level, so the estimates provided are for Charlton County, including all the cities.

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305. The values are based on the most recently available tax roll data for Charlton County and the Cities of Folkston, and Homeland, provided by the Charlton County Tax Assessor's Office.

According to the inventory database, reports, and maps, with a Category 1 Hurricane, wind damage results would cause damage to 182 buildings, with a value of approximately \$3,156,730 and a total loss of \$4,666,790. 22 of 34 essential city and county facilities could have moderate or severe damage.

While we have these values listed, we recognize that a Hurricane event would not usually fully impact the properties' value or be big enough to wipe out all assets.

In a Category 1 Hurricane scenario, it is projected that 182 buildings would be damaged with approximately \$3.2 million in building damages. There would be \$4.7 million in economic losses with a total building damage ratio of 0.42%. Two households would be displaced, with essential buildings possibly losing functionality and severely damaged. Approximately 268,510 tons of debris would consist of 356 tons of brick, wood, and other construction material, 8,525 tons of trees and 25,629 tons of other natural material.

#### **E. Land Use and Development Trends Related to Hurricanes/Tropical Storms:**

The community has standards to restrict building in flood hazard areas (Charlton County Code of Ordinances, Sec. 140-68): New construction must be elevated or floodproofed in "AO" shallow flooding areas. Encroachments within special flood hazard ("AE") zones are prohibited unless a registered professional engineer certifies that the cumulative effect of the proposed development, when combined with all other existing and anticipated growth, will not increase the water surface elevation of the base flood more than one foot at any point within the community (Sec. 140-67). New construction is prohibited within 20 feet of streams (Sec. 140-66(a)(2)). Due to existing septic systems in flood-prone areas, there is a great danger of fecal coliform contamination of river waters due to flooding of old and hardship septic tank systems located along the rivers and tributaries. Water recharge areas are currently protected by ordinance. Wetland areas are protected by ordinance. In addition, Soil and Sedimentation Control Ordinances are in effect.

Charlton County has enacted a subdivision ordinance but has no zoning. There is more residential zoning in the City of Folkston and the City of Homeland than anything else. In addition, most highways in Folkston are zoned for setbacks. Current trends are for agricultural areas to be converted to residential areas.



Since the previous plan was completed, no community development changes would increase or decrease the community's overall vulnerability to the hazard.

#### **F. Multi-Jurisdictional Hurricane/Tropical Storm Differences:**

All of Charlton County, the City of Folkston, and the City of Homeland may be equally affected by Hurricanes/Tropical Storms. Such events are usually area-wide, and no difference in severity is expected between Charlton County, Folkston, and the City of Homeland. However, the impact of a Hurricane/Tropical Storm will likely be more severe in places with higher population density due to more people being in danger, more people needing to be evacuated, more debris from damaged buildings, and other associated impacts with higher population density.

In Worksheet 3A: Inventory of Assets appearing in Appendix A Section I, we estimate that 100.0% of Charlton County and the Cities of Folkston and Homeland are vulnerable to Hurricanes/Tropical Storms.

#### **G. General Overall HRV Summary of Hurricanes/Tropical Storms Events and Their Impact on The Community:**

Hurricanes/Tropical Storms can cause damage at any place, at any time, throughout Charlton County, the City of Folkston, and the City of Homeland. They are usually preceded by some watch or warning well in advance. Of course, the cost of the damage and potential loss of life may be higher if the path of the Hurricanes/Tropical Storms were to occur in populated areas and municipalities, as opposed to if it were to occur in more agricultural-based sections of Charlton County.

The Charlton County HMPUC recognizes Hurricanes/Tropical Storms as the most likely natural hazard to occur and cause damage. Therefore, they developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen Hurricane/Tropical Storm impacts on Charlton County, Folkston, and the City of Homeland. These are contained in Chapter 4, Section I.

## **Section II Flood/SLOSH**

#### **A. Identification of Hazard:**

The Charlton County HMPUC has chosen the threat of a Flood/SLOSH as one of the most likely hazards to occur & cause damage in Charlton County, the City of Folkston, and the City of Homeland based on experience, the FEMA described methodology and other factors. In addition, historical data has been examined from various sources and local history and personal accounts to determine the frequency of events. For further information, see the HAZUS Report in Appendix G.

Floods/SLOSH are destructive, often without warning, and may occur. Drainage ditches and canals that are improperly cleaned or maintained contribute significantly to Flooding occurrences, requiring the homeowners to experience hours, if not days, of water-filled yards and water damage even in the cities.

There are several different Floods, three of which can occur in Georgia: River Floods, Coastal Floods, and Urban Floods. Most Flash Floods are caused by rain from slow-moving Thunderstorms, Thunderstorms repeatedly moving over the same area, or heavy rains from Hurricane/Tropical Storm events.

Flash Floods are the number one weather-related killer in the United States, and flooding accounts for most natural hazard damages. Six (6) inches of fast-moving water can knock people off their feet. Two (2) feet of water can float a full-sized automobile. More than half of the Flood victims are in vehicles that moving water sweeps away.

Charlton County, the City of Folkston, and the City of Homeland are all National Flood Insurance Program members. In addition, all local governments have some part of their jurisdiction located within a floodplain. As of 2018, all jurisdictions comply with NFIP requirements by enforcing flood plain ordinances that prohibit or severely limit development in flood plains.

Charlton County and the Cities of Folkston and Homeland do not participate in the Community Rating System (CRS) program. As of October 1, 2021, they were not eligible according to FEMA (<http://www.fema.gov/library/viewRecord.do?id=3629>) and other information at <http://www.fema.gov>.

As defined by FEMA, flood zones are described in the table on the next page.

## Flood Zone Designations and Descriptions

Source: FEMA (<https://hazards.fema.gov/onlinelomc/ext/Help/loadInstructions>)

Zone Designations	Zone Descriptions
<b>A</b>	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas, these zones show no depths or base flood elevations.
<b>AH</b>	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
<b>AO</b>	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.
<b>A1-A30</b>	These are numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
<b>A99</b>	Areas with a 1% annual chance of flooding will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.
<b>AE</b>	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
<b>AR</b>	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed those for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.
<b>V</b>	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. No base flood elevations are shown within these zones.
<b>V1-V30</b>	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
<b>VE</b>	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
<b>B</b>	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. They are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year floods or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
<b>C</b>	Area of minimal flood hazard usually depicted on FIRMs as above the 500-year flood level.
<b>D</b>	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.
<b>X Shaded</b>	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. Are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year floods, shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
<b>X Unshaded</b>	Area of minimal flood hazard usually depicted on FIRMs as above the 500-year flood level.

Charlton County and the Cities of Folkston and Homeland are all vulnerable to flooding. Areas within flood zones are naturally more susceptible.



## **B. Profile of Flood/SLOSH Events, Frequency of Occurrences, Probability:**

The historical record for Flood/SLOSH is spotty at best, with many unreported or underreported Flood/SLOSH events. Members of the Charlton County HMPUC have witnessed many unreported and underreported cases of minor to major flooding occurring within Charlton County, the City of Folkston, and the City of Homeland, some lasting for days at a time following significant rain events. However, only certain areas of Charlton County, the City of Folkston, and the City of Homeland are usually vulnerable to substantial flooding.

According to the NOAA Storm Events Database (see Appendix F), ten reports of Flood/SLOSH occurred in Charlton County (including the Cities) between 01/01/1998 and 12/31/2021. The Historic Recurrence Interval is 2.3 years. This is a 43.48% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.1, the one-time 20-year frequency is 0.5, and the past 50-year frequency is 0.2). On 7/07/21 water flooded a portion of Hwy 94 between Fargo and Moniac due to Tropical Storm Elsa. During the heavy rain season, minor flooding can occur from the St. Marys River bottomlands flooding along the riverbanks and lower access roads which may cut off roads to some homes. See the map below:



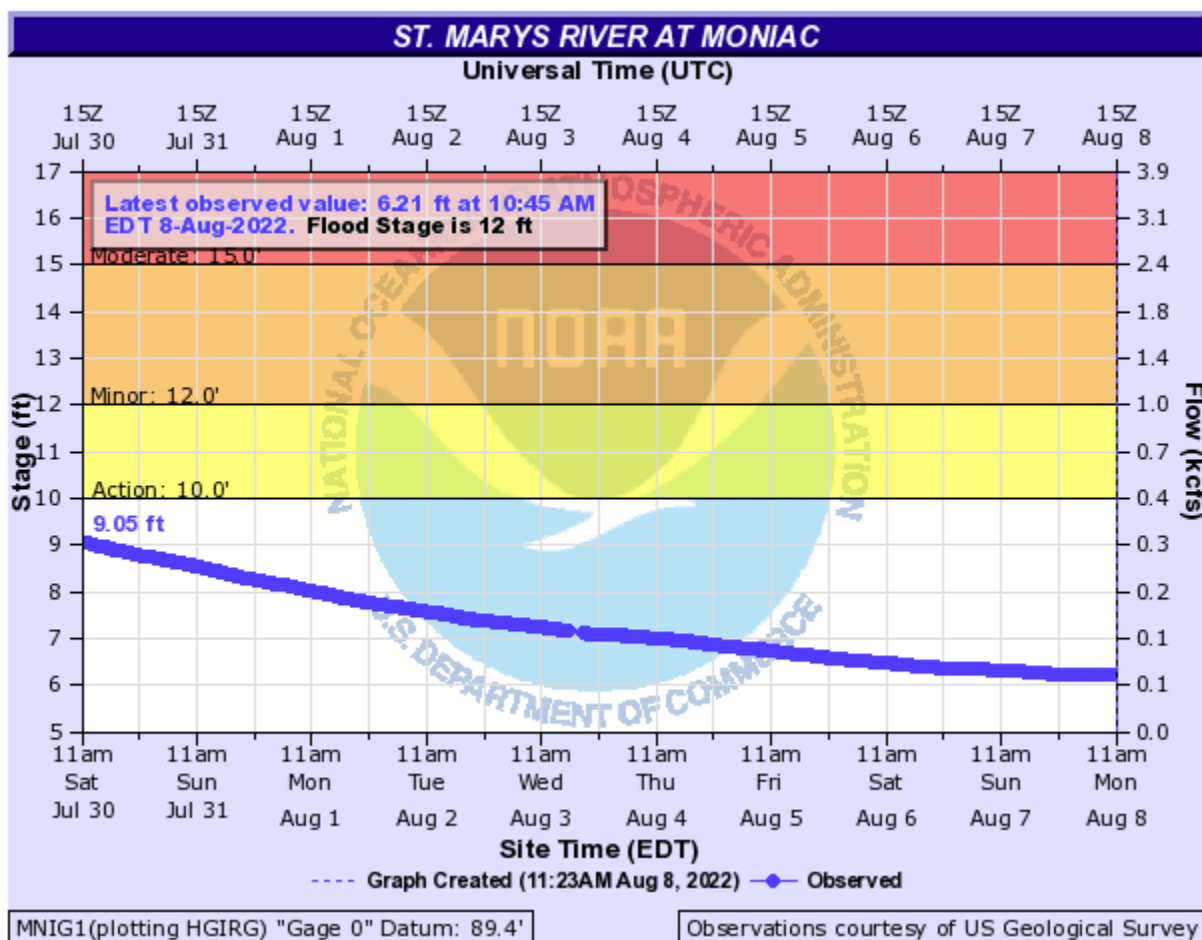
Many significant flooding areas are adjacent to the St. Marys River, Okefenokee Swamp/Suwannee River, Satilla River, and numerous other creeks and streams. In addition, in the City of Folkston and the City of Homeland, certain areas surrounding the drainage canals are also subject to flooding.

One of the major problems encountered is that FEMA Disaster Declarations frequently occur on the Florida side of the St. Marys River but are not given on the Georgia side, where flooding is just as bad or worse.

There is reliable flood depth data, crest height, or data regarding size over flood stage that may be used to determine the extent contained in the Flood Insurance Study for Charlton County, Georgia, and Incorporated Areas dated July 7, 2014. FEMA also provides base flood elevations in their floodplain maps.

For the St. Marys River at Moniac (see chart below), the historic crest was 22.98 ft on April 5, 1973; a more recent crest was 13.00 ft on April 18, 2022. The low water record for this location was 3.52 ft on July 10, 2011. For the St. Marys River at Traders Hill, the highest historic crest was 19.30 ft on Sept. 15, 2017; a more recent crest was 12.53 ft on March 20, 2022 (see chart on the following page). Low water records for this location are currently not available.

(Source: [NOAA - National Weather Service - Water](#))



Flood Categories (in feet)	
Major Flood Stage:	17
Moderate Flood Stage:	15
Flood Stage:	12
Action Stage:	10
Low Stage (in feet):	4.2

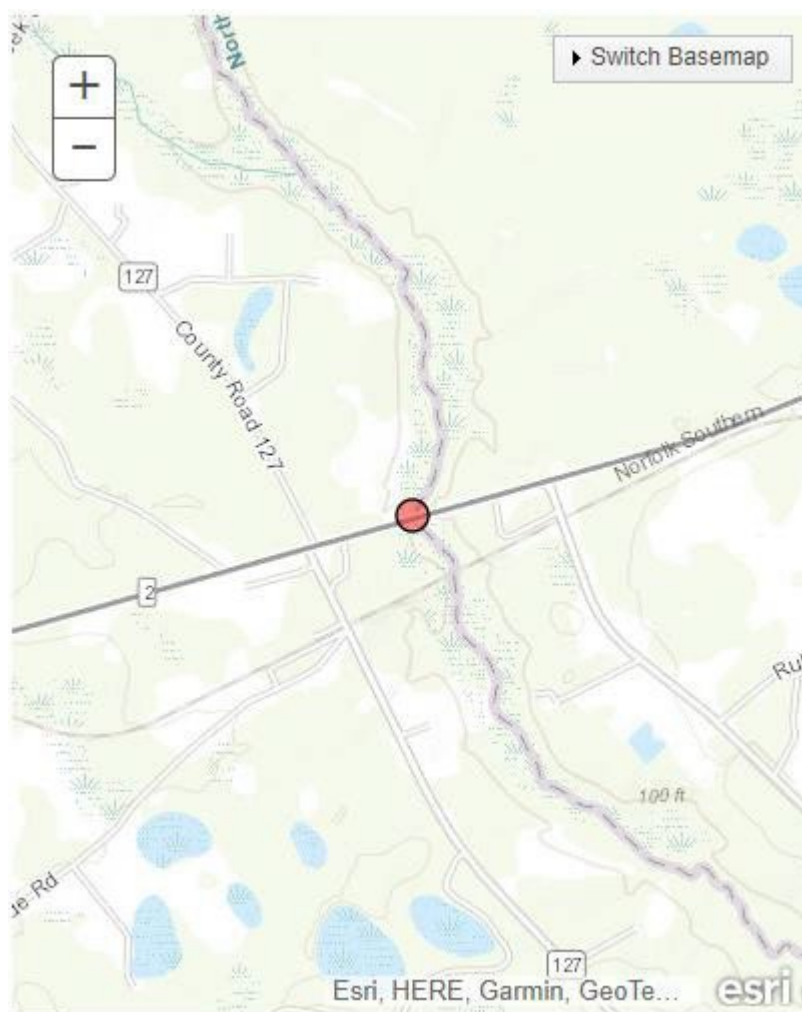
**Historic Crests**  
 (1) 22.98 ft on 04/05/1973  
 (2) 19.90 ft on 09/19/1928  
 (3) 19.15 ft on 08/24/2008  
 (4) 18.69 ft on 06/28/2012  
 (5) 18.41 ft on 09/13/1964  
 (6) 17.78 ft on 09/09/2004  
 (7) 17.57 ft on 03/30/1970  
 (8) 17.51 ft on 09/13/2017  
 (9) 17.03 ft on 02/18/1998  
 (10) 16.38 ft on 09/29/2004 (P)  
[Show More Historic Crests](#)

**Recent Crests**  
 (1) 13.00 ft on 04/18/2022  
 (2) 12.38 ft on 04/09/2022  
 (3) 12.72 ft on 03/14/2022  
 (4) 12.22 ft on 11/08/2021  
 (5) 12.05 ft on 09/20/2021  
 (6) 15.53 ft on 08/07/2021  
 (7) 13.90 ft on 07/08/2021  
 (8) 12.44 ft on 08/13/2020  
 (9) 12.30 ft on 06/13/2020  
 (10) 17.51 ft on 09/13/2017  
[Show More Recent Crests](#)

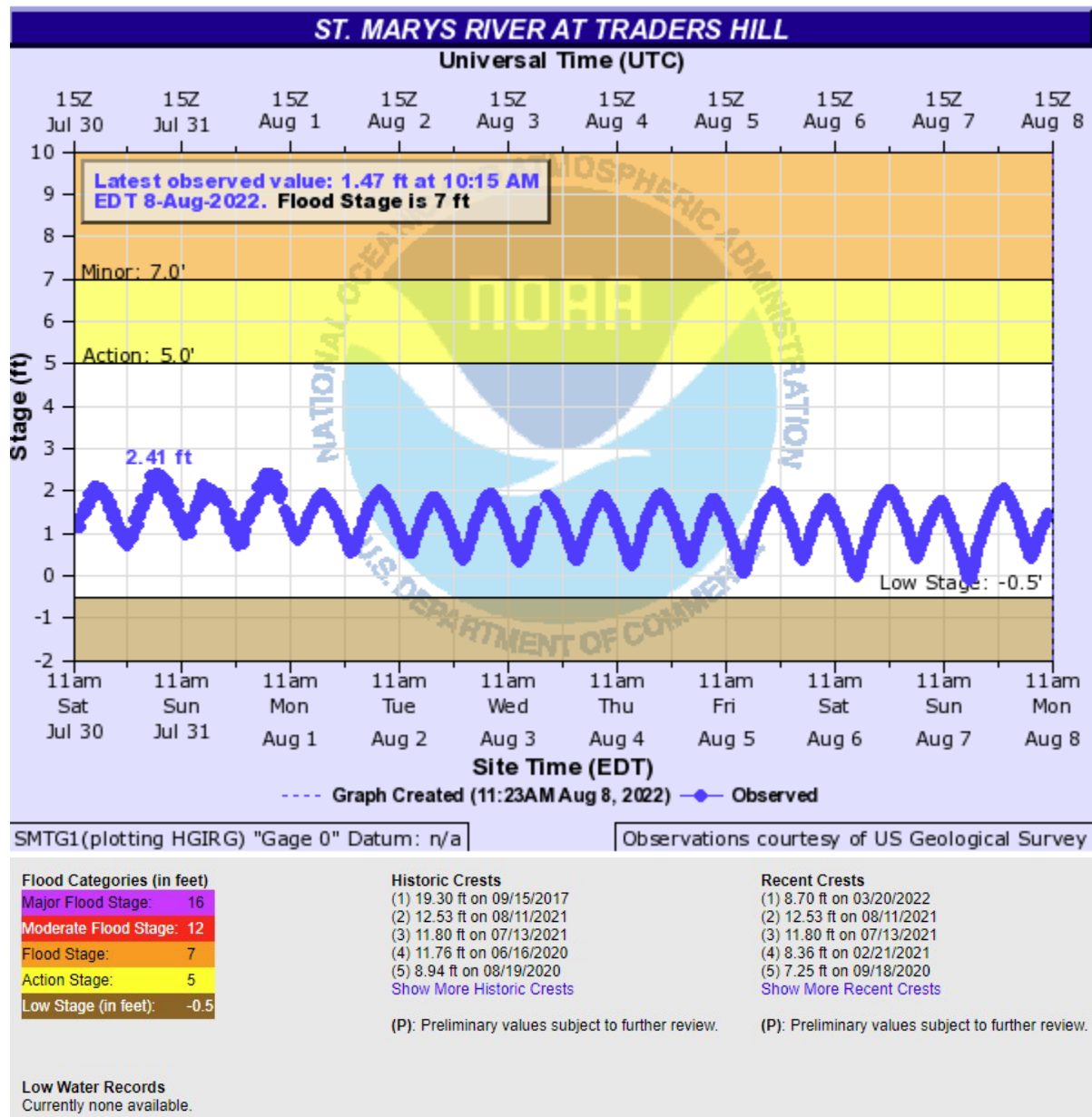
(P): Preliminary values subject to further review.

(P): Preliminary values subject to further review.

**Low Water Records**  
 (1) 3.52 ft on 07/10/2011  
 (2) 3.67 ft on 06/25/1955  
 (3) 3.78 ft on 06/28/1954  
 (4) 3.86 ft on 05/13/1934  
 (5) 3.88 ft on 06/07/1927  
[Show More Low Water Records](#)



Gauge Location



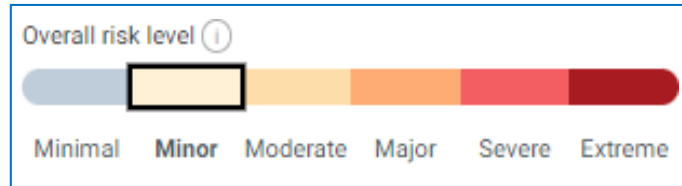


Gauge Location

Charlton County (Including the Cities of Folkston and Homeland):

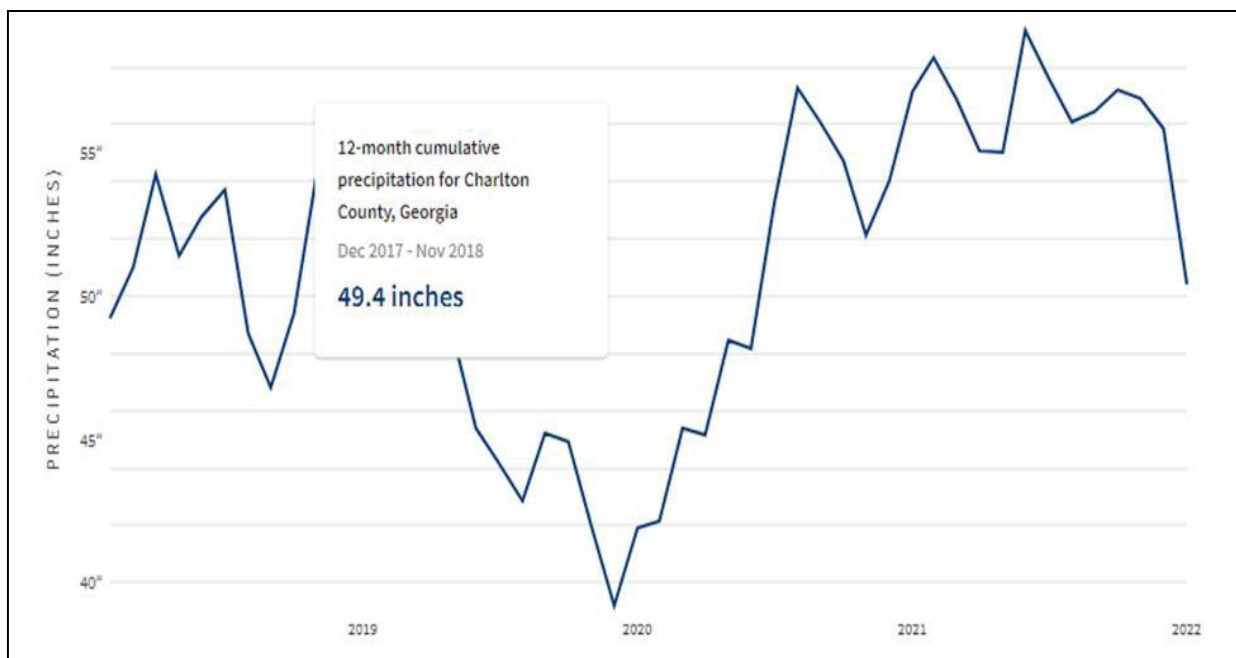
According to National Climatic Data Center information (see Appendix F), there are ten reports of Flood (including region/area-wide & heavy rain events) occurring in Charlton County (including the City of Folkston and the City of Homeland) between 01/01/1950 and 12/31/2021. At least five (5) cases were considered major events. These events cost between \$10,000.00 and \$3,500,000.00. The total cost reported is \$3,700,000.00. Total injuries were reported as zero (0). The Historic Recurrence Interval is 7.1 years. This is a 14.08 Historic Frequency Chance per year. The past ten (10) year's Record Frequency Per Year is 0.1, the past twenty (20) years is 0.45, and the past fifty (50) years is 0.2. (see GEMA PDM Hazard Frequencies Table contained in Appendix D).

As reported by the FloodFactor, 550 properties in Charlton County have a greater than 26% chance of being severely affected by flooding over the next 30 years. This figure represents 8% of all properties within the county. Overall, Charlton County has a minor risk of flooding over the next 30 years.



On Aug. 4, 2015, a weak surface low was over southeast Georgia with a trough extending across the local area. This trough and high instability triggered a few intense storms with heavy rainfall. A RAWS site measured about 3.33 inches in about 2 hours in Charlton County near the Traders Hill community. On June 12, 2017, big waves of slow-moving showers and thunderstorms produced 3-5 inches of rainfall. The RAWs station in the NW Okefenokee Swamp measured a daily rainfall of 2.83 inches. On July 7, 2021, Tropical Storm Elsa tracked NNE across the western tier of the local forecast area. The major impacts of this storm on the local area included three confirmed tornadoes, downed trees due to gusty winds, and heavy rainfall, which caused river flooding. One loss of life was due to a tree falling into a car. Peak rainfall was near 7.2 inches in Alachua County, FL and the peak recorded wind gust in a squall was 58 MPH in Jekyll Island, GA. During this storm, water flooded a portion of Highway 94 between Fargo and Moniac. All three events caused some localized flooding and some temporarily impassable roads. Since the previous plan was completed, no changes have affected the community's overall vulnerability to this hazard.

The 12-month total precipitation increased 1.2 inches from March 2018 to February 2022. From March 2018 to February 2022, the average 12-month rainfall was 51.3 inches. (*Source: National Centers for Environmental Information*).

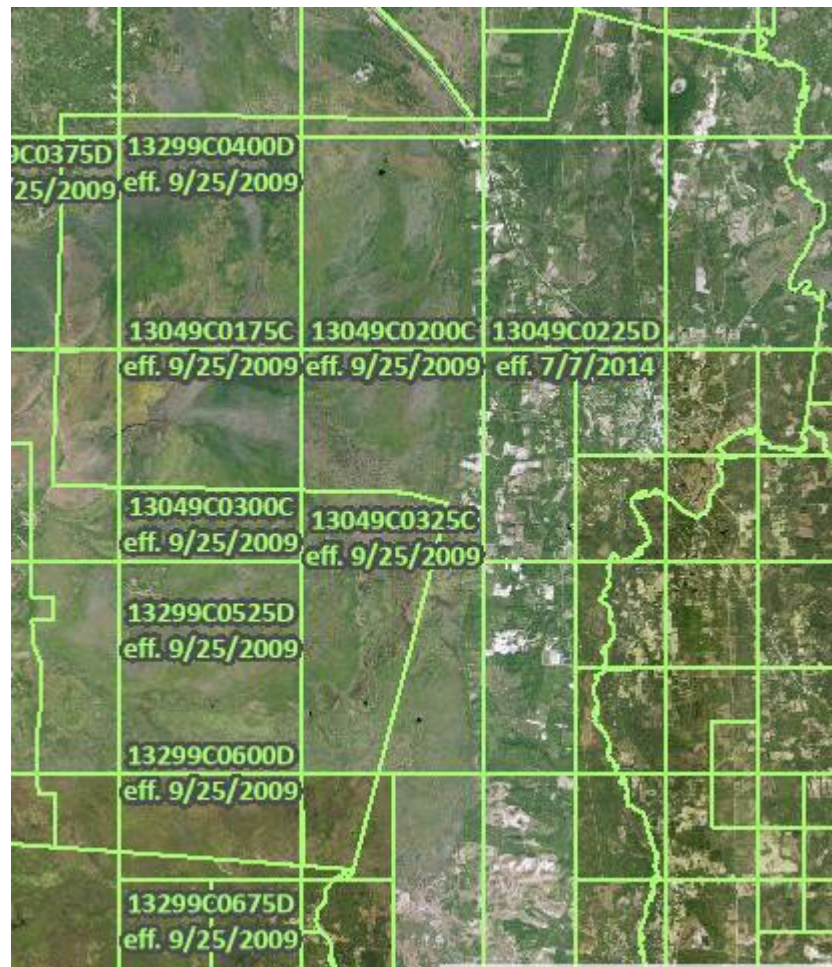




FIRMS in effect for Charlton County and the Cities of Folkston and Homeland include:  
NOTE: Each map cited below is preceded by 13049C, followed by the number referenced below.

One set for Charlton County, including the Cities of Folkston and Homeland contains maps IND0B, 025C, 050C, 075C, 100C, 125D, 150C, 175C, 200C, 225D, 250D, 275C, 300C, 325C, 335D, 345D, 350D, 355D, 360D, 365D, 400C, 410D, 420D, 425D, 430C, 440C, 450C, 460D, 470D, 475D, 480C, 485C, 490C, 495C, 510D, 520D, 525D, 535C, 555C, and 560D

FIRMS ending in “C” were effective 9/25/2009. FIRMS ending in “D” were effective 7/7/2014.



<https://msc.fema.gov>

The GMIS Critical Facilities Inventory Database (Appendix F) shows that certain areas of Charlton County and the Cities of Folkston and Homeland fall within the Flood Hazard Area. Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

### **C./D. Inventory of Assets and Potential Loss Exposed to Flood/SLOSH:**

The threat of a Flood/SLOSH is a constant in Charlton County, the Cities of Folkston, and Homeland due to the unpredictability and random occurrence of the hazard. It is difficult to figure out when and where they will occur and the potential damage they will cause due to the danger and the strength levels of the causes that may trigger the occurrence.

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Charlton County and the Cities of Folkston and Homeland are equally vulnerable to this hazard. Due to the lack of data broken down by jurisdiction, it was impossible to obtain these data at the jurisdictional level, so the estimates provided are for Charlton County, including all the cities.

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

According to the inventory database, reports, and maps, 98 of 4,865 buildings within Charlton County (including the Cities) could be affected by this hazard with a riverine 1% flood. The total value of building losses would be \$1,907,951. The unincorporated area would have the most losses, with \$1,854,356. One essential facility (school) would have moderate damage, and one (school) would be a total loss. The overall building damage ratio would be .50%. No essential facility is anticipated to experience loss. Three hundred thirty-two households (977 people) could potentially be displaced, with an estimated 473 requiring short-term shelter. Approximately 3,925 tons of debris would consist of 1,343 tons of finished material, 908 tons of structural material, and 1,674 tons of foundation material.

0 of the Critical Facilities and Infrastructure for the City of Homeland are located in a Flood Hazard Area and have a total of 0 square feet (see GMIS Critical Facilities Inventory Database Reports contained in Appendix A Section II). The total value of these 0 Critical Facilities is \$0.00, as well as a content value of \$0.00

While we have these values listed, we recognize that a Flood/SLOSH event would not normally fully impact the value of these properties, or be big enough to wipe out all assets.

The GMIS reports that there are four 4 NFIP Repetitive Loss Properties all of which are residential structures.

<b>Jurisdiction</b>	<b># of Properties</b>	<b># of Losses</b>	<b>Amount Paid</b>
Charlton County	3	8	\$142,456.18
City of Folkston	1	4	\$162,466.79
City of Homeland	0	0	\$0.00
<b>TOTAL</b>	4	12	\$304,922.97

Summary of “Repetitive Loss Properties”



Damage to crops is not considered in any of these figures. According to the most recent statistics (2020) on The University of Georgia's Website [www.georgiastats.uga.edu](http://www.georgiastats.uga.edu) (Georgia County Guide), Poultry/Eggs, Row & Forage Crops, Livestock/Aquaculture, Forestry & Forest Products, Vegetables, Ornamental & Horticultural, Fruits & Nuts and Other including Agritourism account for a total Farm Gate Value total of approximately \$19,774,022.

#### **E. Land Use and Development Trends Related to Flood/SLOSH:**

Much population growth in Charlton County has occurred in areas nearer to the Jacksonville Metro Area, which coincides with areas closer to the St. Marys River, which forms the boundary between Charlton County and Florida. This means more development has occurred closer to, or even in, flood-prone areas. The County and cities address this issue through building codes, code enforcement, and comprehensive land use planning that encourages further development away from rivers and other water bodies. The St. Marys River Corridor is part of Charlton County's comprehensive plan's "Mixed-Use Transition" character area. Agricultural and forestry land uses are recommended, which discourages intensive residential development.

Wetland areas are protected by ordinance. In addition, Soil and Sedimentation Control Ordinances are in effect.

Charlton County, Folkston, and the City of Homeland are all National Flood Insurance Program members. In addition, all local governments have some part of their jurisdiction located within a floodplain. Floodplain maps for each local government are located in Appendix A Section II.

Charlton County and the Cities of Folkston and Homeland do not participate in the Community Rating System (CRS) program. As of October 1, 2021, they were not eligible according to FEMA (<http://www.fema.gov/library/viewRecord.do?id=3629>) and other information at <http://www.fema.gov>.

Since the previous plan was completed, CDBG grants for street paving and drainage to address flooding issues have been applied and installed in certain areas.

#### **F. Multi-Jurisdictional Flood/SLOSH Differences:**

According to GIS data from FEMA, 48.0% of Charlton County as a whole (including the Cities) is within a flood hazard area: 3.4% within Zone "AE" and 44.6% within zone "A." Regarding the two Cities, 9.6% of the City of Folkston is within a flood hazard area (all Zone "A"), and 12.1% of the City of Homeland is within a flood hazard area (also all Zone "A").

#### **G. General Overall HRV Summary of Flood/SLOSH Events and Their Impact on the Community:**

Floods/SLOSH can cause damage in any flood-prone area throughout Charlton County, the City of Folkston, and the City of Homeland. Of course, the cost of the damage and potential loss of life may be higher if the Flood/SLOSH were to occur in populated areas and municipalities, as opposed

to if it were to occur in more agricultural-based sections of Charlton County. Damage caused by it can vary depending on the amount of flooding and severity, among other factors.

The Charlton County HMPUC recognizes Flood/SLOSH as one of the most likely natural hazards to occur and cause damage. Therefore, they developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the Flood/SLOSH impact on Charlton County, Folkston, and the City of Homeland. These are contained in Chapter 3, Section II.

### **Section III Wildfire**

#### **A. Identification of Hazard:**

The Charlton County HMPUC has chosen the threat of Wildfire as one of the most likely hazards to occur & cause damage in Charlton County, the City of Folkston, and the City of Homeland; based on experience, the FEMA described methodology and other factors.

Historical data has been examined from various sources, the National Climatic Data Center (see Appendix F) and local history and personal accounts, to determine the frequency of events. The Georgia Forestry Commission was also contacted for information regarding the County's hazard history. The data included in this section is the data from the community's most current Community Wildfire Protection Plan.

Nationwide, approximately 80 percent of wildfires are caused by people. Smoking in forested areas and improperly extinguishing campfires are two typical wildfire causes. Lightning is also a significant igniter of fires. Over 10 million acres were burned in 2015, 2017, and 2020 in the U.S. In 2021, over 7 million acres were burned in the U.S. Georgia had 2 1330 wildfires in 2021. (See charts below for the National Interagency Coordination Center at NIFC annual wildland fire statistics from 1983-2021).

Source: National Interagency Coordination Center

Year	Fires	Acres	Year	Fires	Acres
2021	58,985	7,125,643	2002	73,457	7,184,712
2020	58,950	10,122,336	2001	84,079	3,570,911
2019	50,477	4,664,364	2000	92,250	7,393,493
2018	58,083	8,767,492	1999	92,487	5,626,093
2017	71,499	10,026,086	1998	81,043	1,329,704
2016	67,743	5,509,995	1997	66,196	2,856,959
2015	68,151	10,125,149	1996	96,363	6,065,998
2014	63,312	3,595,613	1995	82,234	1,840,546
2013	47,579	4,319,546	1994	79,107	4,073,579
2012	67,774	9,326,238	1993	58,810	1,797,574
2011	74,126	8,711,367	1992	87,394	2,069,929
2010	71,971	3,422,724	1991	75,754	2,953,578
2009	78,792	5,921,786	1990	66,481	4,621,621
2008	78,979	5,292,468	1989	48,949	1,827,310
2007	85,705	9,328,045	1988	72,750	5,009,290
2006	96,385	9,873,745	1987	71,300	2,447,296
2005	66,753	8,689,389	1986	85,907	2,719,162
2004	65,461	8,097,880	1985	82,591	2,896,147
2003	63,629	3,960,842	1984	20,493	1,148,409
			1983	18,229	1,323,666

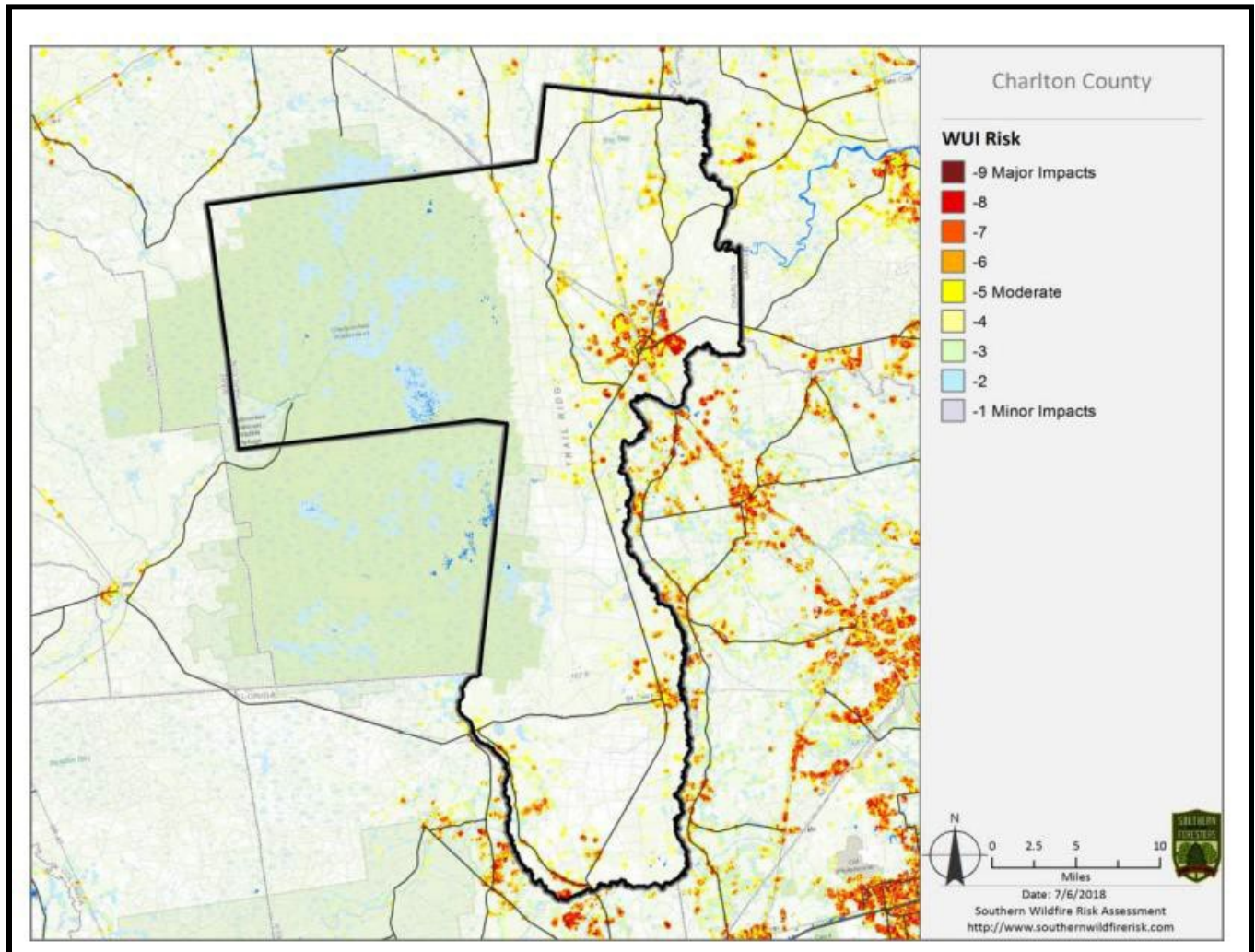
Although wildfires occur naturally and serve essential functions for forest ecosystems, they threaten human life and property. Wildfires can have an economic impact in Charlton County, where a significant portion of the land is used for forestry. At the same time, periodic controlled burns may be necessary to maintain healthy forest ecosystems.

Low humidity, lack of recent precipitation (or drought conditions), wind speed, and temperature are weather conditions that favor the kindling and spread of forest or brush fires. Dead fuel moisture allows forest or brush fires to kindle and spread with the above. Much of Charlton County and some areas in and near the City of Folkston and the City of Homeland are wooded with commercial and free-growing pine trees and other trees. These trees can and do catch fire frequently in small and large fires.

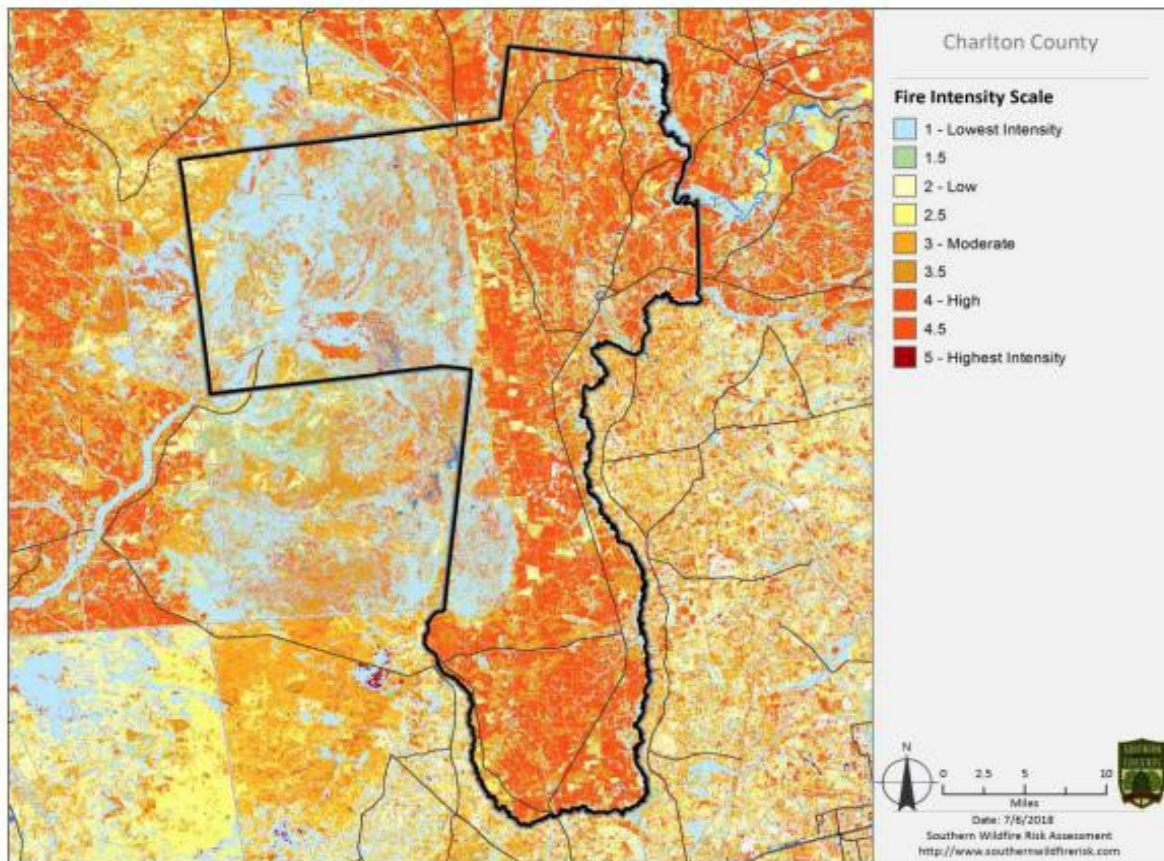
In Charlton County (including the Cities of Folkston and Homeland), according to Georgia Forestry Commission's "Community Wildfire Protection Plan" has been an average of 74 reported wildland fires per year over the past 50 years, burning an average of 1,002 acres per year. Jurisdiction does not break down this data.

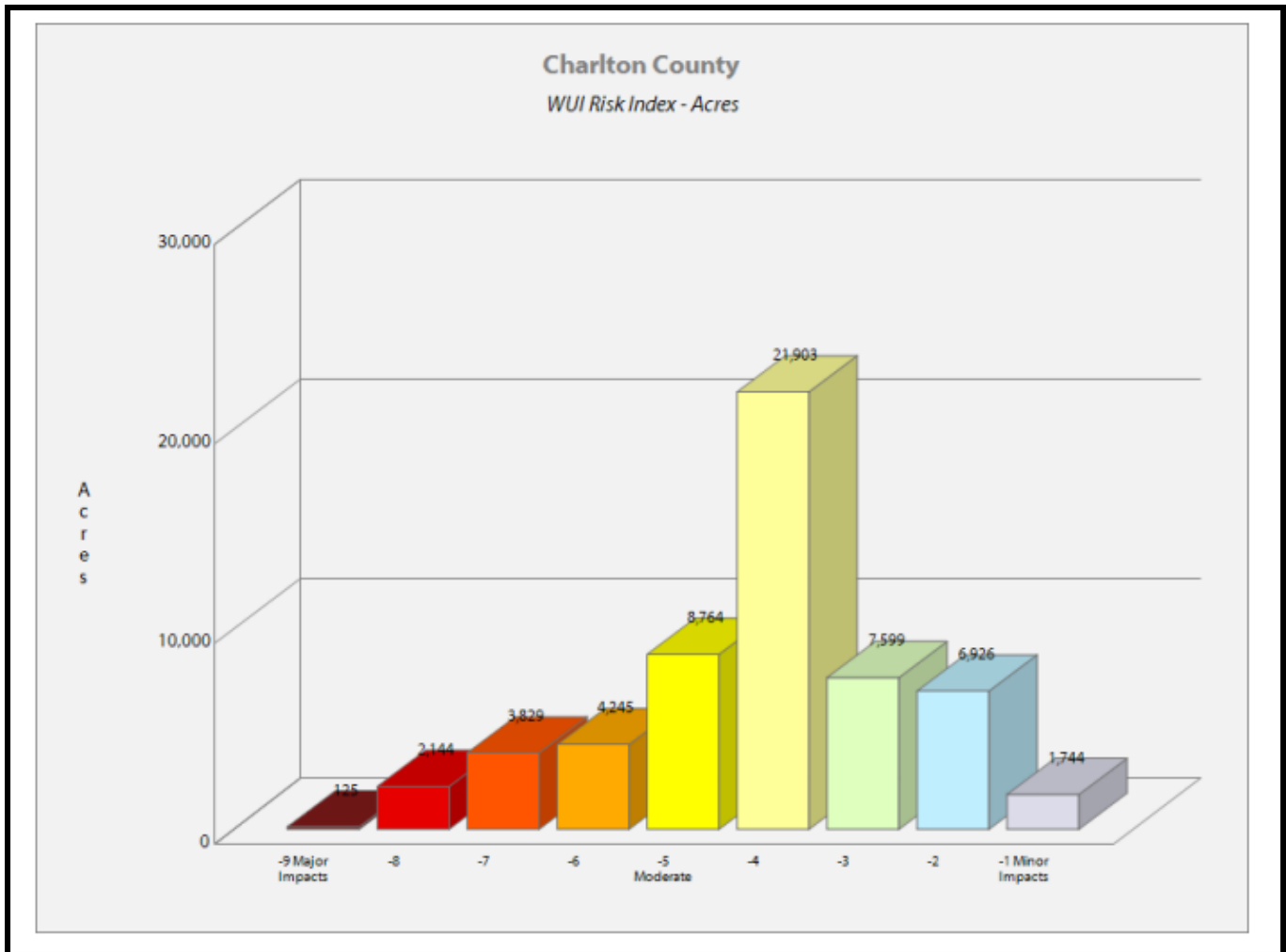
Wildfires often go unnoticed. They spread quickly and can change direction rapidly, igniting brush, trees, and homes. Or, fire may smoke for weeks in the underbrush and then ignite some distance away, resisting efforts to eradicate it and spreading quickly throughout the area. Surface Fires are the most common type of Wildfires, moving slowly and burning along the forest floor, killing and damaging vegetation. Ground Fires, another variety, usually start with lightning and burn on or below the forest floor through the root systems. These tend to last longer because of the organic soil; some have burned for over a year. The final type, Crown Fires, is spread by wind moving quickly along the tops of trees.

Charlton County and the Cities of Folkston and Homeland are all vulnerable to the effects of wildfires. The Community Wildlife Protection Plan shows the risks of wildfires on the Wildland Urban Interface (WUI) maps below. The risk ranges from minor to major impacts.









### **B. Profile of Wildfire Events, Frequency of Occurrences, Probability:**

The historical record for minor to major Wildfires is spotty, with many unreported or underreported events. Charlton County, Folkston, and the City of Homeland are vulnerable to Wildfires due to their unpredictability and random occurrences. The effects can range from minimal damage to severe and widespread damage. Wildfires can occur at any time of the year.

Members of the Charlton County HMPUC have witnessed many unreported and under-reported cases of minor to major Wildfire events occurring in Charlton County, the City of Folkston, and the City of Homeland, some lasting for days, weeks, or months at a time.

In 2007, Charlton County was part of the Georgia Bay Complex wildfire, which burned for more than two months and burned approximately 441,705 acres, and again in 2011 was part of the Honey Prairie Fire, which lasted a whole year and consumed 309,200 acres.

In 2017, Charlton County was part of the West Mims wildfire, which started April 6, 2017, and burned for several months resulting in a loss of approximately 152,515 acres, before being primarily put out by heavy rains.

These fires occurred in extreme drought years, with most burned acreage occurring in the Okefenokee Wildlife Refuge.

According to the Georgia Forestry Commission, lightning was the leading cause of these fires. (23%) and debris burning (22%), causing 12% and 32% of the acres, respectively. Incendiary, or Arson, caused 17% of the fires accounting for 45% of acres lost.

#### Charlton County (Including the Cities of Folkston and Homeland):

According to National Climatic Data Center information (see Appendix F), there were four reports of Wildfires in the community between 01/01/1950 and 12/31/2017. However, more complete data were obtained from the Georgia Forestry Commission. In Charlton County (including the Cities of Folkston and Homeland), between 1950 and 2017, with the best available information, 3,623 events were recorded in fifty (50) years. Since the previous Hazard Mitigation Plan was completed, there have been 205 wildfires reported, with 30,384 acres burned. This brings the total number of fires to 3828. This number includes a record-setting wildfire event in 2017 in which 29,180 acres were burned. The Historic Frequency is 5391.55%, the past ten (10) year's Record Frequency Per Year is 46.5, the past twenty (20) years is 55.3, and the past fifty (50) years is 72.46 (see GEMA PDM Hazard Frequencies Table contained in Appendix D).

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports (see Appendix F.II and Maps (see Appendix A Section III) address Wildfire. This model has determined that some regions of Charlton County, the City of Folkston, and the City of Homeland fall within the Wildfire Hazard Area. Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

As you can see above, several sources of information have different determinations of wildfire risks. However, all places are certain areas of Charlton County and the Cities of Folkston and Homeland within Wildfire hazard areas.

Since the previous plan was completed, no changes have affected the community's overall vulnerability to the hazard.

#### **C./D. Inventory of Assets Exposed and Potential Loss to Wildfire:**

The threat of Wildfire is a constant in Charlton County, the City of Folkston, and the City of Homeland due to the unpredictability and random occurrence of the hazard. It is difficult to figure out when and where it will occur and the potential damage it will cause due to the danger and intensity levels.

Wildland Urban Interface (WUI): There are many definitions of the Wildland-Urban Interface (WUI); however, from a fire management perspective, it is commonly defined as an area where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. As fire depends on a particular set of conditions, the National Wildfire Coordinating Group has defined the wildland-urban interface as a set of conditions that exist in

or near areas of wildland fuels, regardless of ownership. The requirements include vegetation, building construction, accessibility, lot size, topography, and other factors such as weather and humidity. When certain combinations present these conditions, some communities are more vulnerable to wildfire damage than others. This “set of conditions” method is perhaps the best way to define wildland-urban interface areas when planning wildfire prevention, mitigation, and protection activities.

There are three (3) major categories of wildland-urban interface: Depending on the conditions present, any of these areas may be at risk from wildfire. A wildfire risk assessment can determine the level of risk. These are:

“Boundary” Wildland-Urban Interface is characterized by areas of development where homes, especially new subdivisions, press against the public and private wildlands, such as private or commercial forest land or public forests or parks. This is the classic type of wildland-urban interface, with a clearly defined boundary between the suburban fringe and the rural countryside.

“Intermix” Wildland-Urban Interface areas are where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated rural homes or sites just beginning to transition from rural to urban land use.

“Island” Wildland-Urban Interface, also called occluded interface, are wildland areas within predominantly urban or suburban areas. As cities or subdivisions grow, islands of undeveloped land may remain, creating remnant forests. Sometimes these remnants exist as parks or land that cannot be developed due to site limitations, such as wetlands.

#### Charlton County (including the Cities of Folkston and Homeland):

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Charlton County and the Cities of Folkston and Homeland are equally vulnerable to this hazard. Due to the lack of data broken down by jurisdiction, it was impossible to obtain these data at the jurisdictional level, so the estimates provided are for Charlton County, including all the cities.

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

#### **E. Land Use and Development Trends Related to Wildfire:**

Georgia law requires that a permit be issued for most types of outdoor burning. To request a permit, all that is needed is to contact the local Georgia Forestry Commission or visit [www.gatrees.org](http://www.gatrees.org) to apply online. If conditions are favorable for burning, a receipt will be granted. According to Georgia law, burning without a permit is a misdemeanor with fines up to \$1,000.00.



Development continues in Charlton County, the City of Folkston, and the City of Homeland, with many new constructions in areas bordered by pine tree production and other naturally growing trees. More and more people are making their homes in woodland near forests or rural areas. This residential development in the Wildland-Urban Interface (WUI) has a twofold problematic effect: More people live in or near forest land that is naturally subject to wildfires that are a natural part of the forest ecosystem; and because fires are suppressed, the fuel load (dead branches, leaves, etc.) increases without being cleaned out by wildfires as would happen in a normally functioning forest ecosystem. Also, human activity (bonfires, trash burning) can contribute to the risk of wildfires as the population increases. These homeowners enjoy the beauty of the environment but face the real danger of wildfires. This is not a new phenomenon, but it has always been the case. However, Charlton County continues to experience growth associated with the Jacksonville, Florida, metro area. The trend is for this to continue.

#### **F. Multi-Jurisdictional Wildfire Differences:**

All of Charlton County, the City of Folkston, and the City of Homeland may be affected by Wildfire. In addition, much of Charlton County is occupied by the Okefenokee Swamp, which is mainly unoccupied.

In Worksheet 3A: Inventory of Assets appearing in Appendix A Section III, we estimate that 100% of Charlton County and the Cities of Folkston and Homeland are vulnerable to Wildfires. The City of Homeland is at the most significant risk for wildfires.

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A Section III) address Wildfire. This model has determined that specific Charlton County and the Cities of Folkston and Homeland areas fall within the Wildfire Hazard Area. Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

For Charlton County, and the cities, most of the county and cities are located in hazard areas rated as “very high”. Some are rated “high” and four areas are rated as “extreme”. Of the three rated extreme, one is at Traders Hill, one is located at the Coleraine area, one is located a May Bluff, and one is located at St. Marys Bluff. Some of these areas are highly populated areas of the county that surround Folkston and Homeland.

Various Wildfire maps and other information have been produced through the Georgia Forestry Commission and included in their Community Wildfire Protection Plan” for Charlton County (see Appendix C-II).

The Charlton County Fire Department and the Georgia Forestry Commission, in their “Community Wildfire Protection Plan” (see Appendix C), have determined through Hazard ratings that the following areas have a High, Very High, or Extreme level of probability concerning Wildfire:

Coleraine (Extreme)  
May Bluff (Extreme)  
St. Marys Bluff (Extreme)  
Traders Hill (Extreme)  
Dixie Lake (Very High)

Folkston District (Very High)  
Forest Lake (Very High)  
Homeland (Very High)  
Live Oak Estates (Very High)  
Racepond District (Very High)  
Sam Howard Road (Very High)  
Uptonville (Very High)  
Winokur District (Very High)  
Black River (High)  
Camp Pinckney (High)  
GA Bend District (High)  
Spring Lake (High)  
Stokes Lake (High)  
Yankee Forest (High)

In addition, the staff of the Okefenokee Wildlife Refuge lists the Davis Community (located on Spanish Creek Road, Trail Ridge, and Davis Road) and Kingfisher Landing Community (south of Race Pond), and the Martha Dowling Road area as being in critical danger during wildfire events in the wildlife refuge. As a result, they have prepared a Wildland Urban Interface Threat Zone Map for 3 miles around the Okefenokee Swamp. They will eventually cover 10 miles around the refuge identifying specific properties in the WUI.

Volunteers staff all five (5) Fire Department properties in Charlton County. The county has zero (0) full-time fire departments. However, it now maintains a full-time Fire Chief and Assistant Fire Chief position. This and other factors combine to affect the overall safety of the residents and reporting of the dangerous or hazardous conditions that we are attempting to report on and plan Hazard Mitigation for here. In addition, the City of Folkston and the City of Homeland do not have fire departments.

The following relates to the ISO Classes of Charlton County, the City of Folkston, and the City of Homeland. Regarding ISO Documentation:

**CHARLTON COUNTY**

Station 1: Folkston:	Class 5/9/10
Station 2: St. George:	Class 5/9/10
Station 3: Racepond:	Class 5/9/10
Station 4: GA Bend:	Class 5/9/10
Station 5: Winokur:	Class 5/9/10

As you can see above, several sources of information (see Appendix A and Appendix C) have different determinations of wildfire risks, although all place most Charlton County and the Cities of Folkston and Homeland within Wildfire hazard areas.

**G. General Overall HRV Summary of Wildfire Events and Their Impact on The Community:**

Wildfire can cause damage in any Wildfire prone area, at any time, throughout Charlton County, the City of Folkston, and the City of Homeland. Of course, the cost of the damage and the potential

loss of life may be higher if the Wildfires were to occur in the populated areas and municipalities, as opposed to if they were to occur in more agricultural-based sections of Charlton County. The effects can range from minimal damage to severe and widespread damage. Wildfires can occur at any time of the year.

The Charlton County HMPUC recognized Wildfire as one of the most likely natural hazards to occur and cause damage. As a result, they developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen Wildfire impact on Charlton County, Folkston, and the City of Homeland, contained in Chapter 3, Section III.

Charlton County and the Cities of Folkston and Homeland have completed a comprehensive mapping of the community’s environmentally sensitive areas. In addition, the County and Cities have completed their Community Wildfire Protection Plan, which contains goals and objectives to decrease the community’s overall vulnerability to this hazard. Since the previous plan was approved, there are no new community development changes that would increase or decrease the community’s overall vulnerability to this hazard.

**Section IV**  
**Tornado**

**A. Identification of Hazard:**

The Charlton County HMPUC has chosen a Tornado threat as one of the most likely hazards to occur & cause damage in Charlton County, the City of Folkston, and the City of Homeland based on the FEMA’s experience methodology and other factors. In addition, historical data has been examined from various sources (see Appendix A), the National Climatic Data Center (see Appendix F), and local history and personal accounts to determine the frequency of events.

A Tornado is a violently rotating column of air extending to the ground. Tornadoes are one of nature’s most destructive forces. Tornadoes can generate wind speeds of up to 318 miles per hour. A Tornado’s damage path can be more than a mile wide and fifty (50) miles long.

ENHANCED FUJITA WIND DAMAGE SCALE		
EF SCALE		
EF RATING	3 SECOND GUST (MPH)	DESCRIPTION
0	65-85	<b>Light Damage.</b> Some damage to chimneys; branches broken off trees, shallow-rooted trees uprooted, signboards damaged.
1	86-110	<b>Moderate damage.</b> Roof surfaces peeled off; mobile homes pushed foundations or overturned; moving autos went off the road.

2	111-135	<b>Considerable damage.</b> Roofs torn from frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light objects become projectiles.
3	136-165	<b>Severe damage.</b> Roofs and some walls torn from well-constructed houses; trains overturned; most trees in forested areas uprooted; heavy cars lifted and thrown.
4	166-200	<b>Devastating damage.</b> Well-constructed houses leveled; structures with weak foundations blown some distance; cars thrown; large missiles generated.
5	Over 200	<b>Incredible damage.</b> Substantial frame houses lifted off foundations, carried considerable distances, and disintegrated; auto-sized missiles airborne several hundred feet or more; trees debarked.

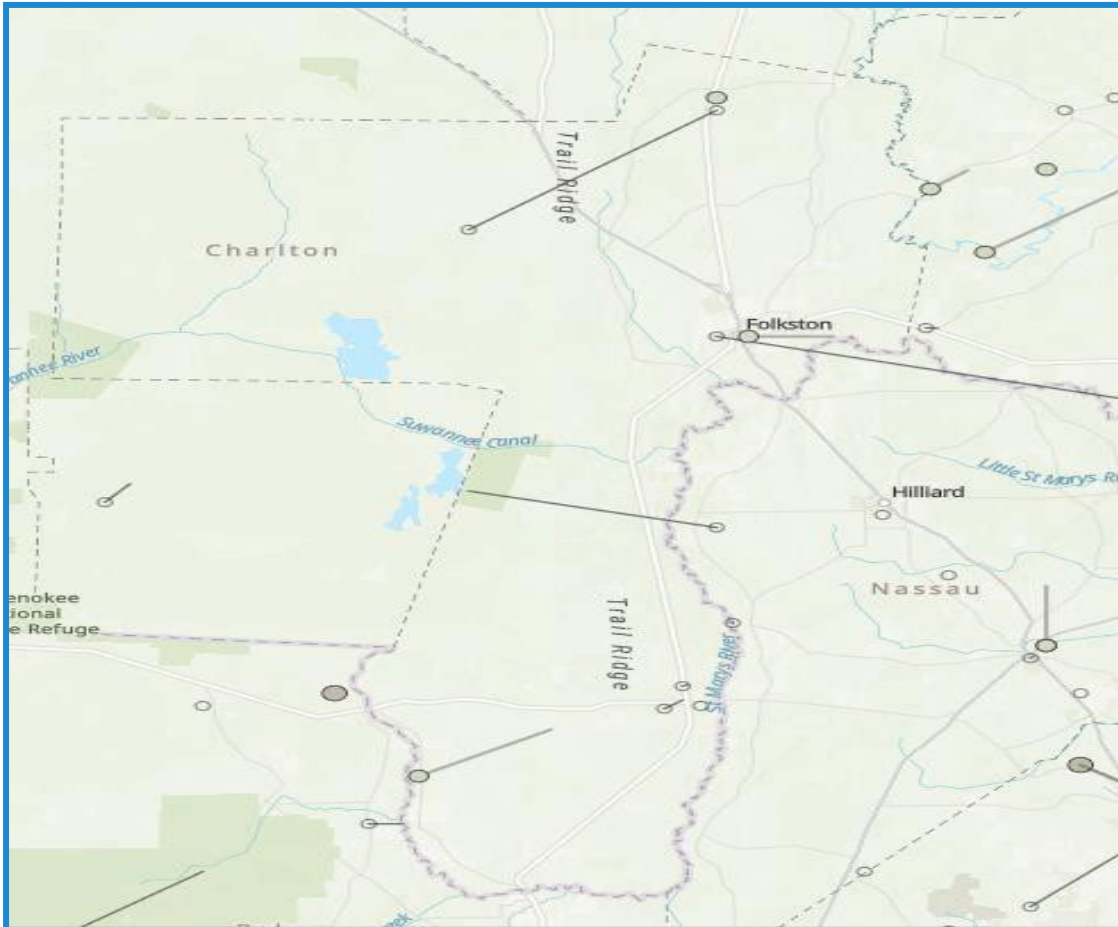
Tornadoes have the potential to be destructive and may occur at any time. Tornadoes may develop quickly in Charlton County, the City of Folkston, and the City of Homeland. Tornadoes can occur at any place and time, due to inclement weather conditions, a passing front, or as part of the Thunderstorm or Hurricane/Tropical Storm event. Tornado season in Georgia is typically from March through August. Tornadoes are most likely to occur between 3:00 p.m. and 9:00 p.m.

Tornadoes may cause damage to Charlton County, the City of Folkston, and the City of Homeland at any time, but Hurricane/Tropical Cyclone season (June 1 to November 30th) is another time that they are particularly active. Not until the last minute, if then, is it possible to determine when and where the path of a Tornado is.

## **B. Profile of Tornado Events, Frequency of Occurrences, Probability:**

The historical record for Tornadoes is spotty at best, with many unreported or underreported Tornado events. Charlton County, Folkston, and the City of Homeland are vulnerable to Tornadoes due to their unpredictability and random occurrences. The effects of this hazard are usually substantial and occur with little to no warning.

The Charlton County HMPUC has witnessed many unreported and underreported cases of Tornado events occurring within Charlton County, the City of Folkston, and the City of Homeland. Charlton County and its Cities have experienced Tornado Watches and Warnings but rarely a Tornado. However, in 2010 an EF0 tornado touchdown occurred in the unincorporated community of Saint George with winds of 80 mph. Minor damage occurred to a post office and several mobile homes. There was widespread tree damage. An old abandoned brick building was severely damaged. Many buildings, including the laundromat, had portions of their roofs damaged. One of the railroads crossing arms at the town's main intersection was completely blown off.



Tornado tracks (source: <https://www.arcgis.com>)

#### Charlton County (Including the Cities of Folkston and Homeland):

According to National Climatic Data Center information (see Appendix F), there are nine reports of Tornadoes (including funnel clouds) occurring in Charlton County (including the Cities of Folkston and Homeland) between 01/01/1950 and 12/31/2010. Of these, at least five (5) cases were considered major events and cost between \$1,000.00 and \$100,000.00 each. Therefore, the total cost reported has been \$ 168,000.00.

Of those nine reports listed above, two were Funnel Clouds, a rotating funnel-shaped cloud forming the core of a tornado or waterspout five were F-0 Tornadoes, two were F-1 Tornadoes, one was an EF-0, and one was an EF-1. For further information, see the tornado maps in Appendix A. The most significant tornado in the Charlton County area was an F3 in 1968 that caused no injuries or deaths.

With the best available information in Charlton County (including the Cities of Folkston and Homeland), we have recorded nine events in 60 years with a Historic Recurrence Interval of 6.67 years. This is a 12.68% Historic Frequency Chance per year. The past ten (10) year's Record Frequency Per Year is 0, the past twenty (20) years is 0.2, and the past fifty (50) years is 0.16 (See

GEMA PDM Hazard Frequencies Table contained in Appendix D Section I). Many strong cells to move through Charlton County have not been listed by NOAA, National Centers for Environmental Information. The frequency table only lists those that NOAA has noted.

Since the previous plan was completed, no changes have affected the community's overall vulnerability to this hazard.

#### **C./D. Inventory of Assets Exposed and Potential Loss to Tornadoes:**

The threat of Tornadoes is a constant in Charlton County, the City of Folkston, and the City of Homeland due to their unpredictability and random hazard occurrence. The potential damage they may cause is not easy to determine when and where they will occur due to the unpredictability of the risk itself and the intensity levels of Tornadoes.

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Charlton County and the Cities of Folkston and Homeland are equally vulnerable to this hazard. Due to the lack of data broken down by jurisdiction, it was impossible to obtain these data at the jurisdictional level, so the estimates provided are for Charlton County, including all the cities.

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

According to the inventory database, reports, and maps, with an EF3 Tornado, approximately 241 buildings could be damaged, with estimated building losses of roughly \$5.8 million.

#### **E. Land Use and Development Trends Related to Tornadoes**

Since the previous plan was completed, no community development changes would increase or decrease the community's overall vulnerability to the hazard.

#### **F. Multi-Jurisdictional Tornado Differences:**

All Charlton County, the City of Folkston, and the City of Homeland may be equally affected by Tornadoes. However, due to the higher population density within the Cities of Folkston and Homeland, a direct hit from a powerful tornado would likely cause more damage and casualties than in the less populated areas of unincorporated Charlton County.

In Worksheet 3A: Inventory of Assets appearing in Appendix A, we estimate that 100% of Charlton County and the Cities of Folkston and Homeland are vulnerable to Tornadoes.

No differences between the jurisdictions have been identified at this time.



## **G. General Overall HRV Summary of Tornado Events and Their Impact on the Community:**

Tornadoes can cause damage anywhere, anytime, throughout Charlton County, the City of Folkston, and the City of Homeland. Of course, the cost of the damage and potential loss of life may be higher if the Tornado were to occur in populated areas and municipalities instead of if they were to occur in more agricultural-based sections of Charlton County. However, most Tornadoes cause substantial damage.

The Charlton County HMPUC recognizes Tornadoes as one of the most likely natural hazards to occur and cause damage. They developed a comprehensive range of Mitigation Goals, Objectives and Action Steps to lessen Tornadoes impact on Charlton County, the City of Folkston and the City of Homeland. These are contained in Chapter 4, Section IV.

### **A. Identification of Hazard:**

#### **Section V Thunderstorms & Wind**

The Charlton County HMPUC has chosen the threat of Thunderstorms and Wind as one of the most likely hazards to occur & cause damage in Charlton County, Folkston, and the City of Homeland; based on experience, the FEMA described methodology and other factors. In addition, historical data has been examined from various sources (see Appendix A) and the National Climatic Data Center (see Appendix F) and from local history and personal accounts to determine the frequency of events.

Thunderstorms and Wind have the potential to be destructive and may occur at any time. Thunderstorms may develop quickly in Charlton County, Folkston, and the City of Homeland due to inclement weather conditions, a passing front, or Hurricane/Tropical Storm events. Likewise, wind events may occur on their own, due to inclement weather, as a result of a passing front, or as part of Thunderstorms or Hurricane/Tropical Storm events.

Thunderstorms are one of the most common weather products of our atmosphere. They can create a dazzling display of light and sound, but do not underestimate these storms. They can cause serious injury, substantial property damage, and even death. Dangers associated with Thunderstorms include lightning, hail, heavy rain, flooding, and strong winds. The straight-line Wind in a Thunderstorm can exceed 100 mph and be as damaging as a Tornado. Lightning associated with these events is perhaps one of the leading causes of wildfires in Charlton County. Lightning can occur even if it is not raining.

#### **NOAA Types of Thunderstorms:**

##### **THE SINGLE-CELL STORM:**

Single-cell thunderstorms usually last between 20-30 minutes. A single-cell storm is rare because the gust in front of one cell often triggers growth.

Most single-cell storms are not usually severe. However, a single-cell storm can produce a brief extreme weather event. When this happens, it is called a severe pulse storm. Their updrafts and downdrafts are slightly stronger and typically have hail that barely reaches severe limits and/or brief microbursts (a strong downdraft of air that hits the ground and spreads out). In addition, short heavy rainfall and occasionally a weak tornado are possible. Though severe pulse storms form in more unstable environments than non-severe single-cell storms, they are usually poorly organized and seem to occur at random times and locations, making them difficult to forecast.

#### THE MULTICELL CLUSTER STORM:

The multicell cluster is the most common type of thunderstorm. The multicell cluster consists of a group of cells, moving along as one unit, each in a different phase of the thunderstorm life cycle. Mature cells are usually found at the cluster's center, with dissipating cells at the downwind edge of the cluster.

Multicell Cluster storms can produce moderate-sized hail, flash floods, and weak tornadoes.

Each cell in a multicell cluster lasts only about 20 minutes; the multicell cluster may persist for several hours. Thus, this storm is usually more intense than a single-cell storm but weaker than a supercell storm.

#### THE MULTICELL LINE STORM (SQUALL LINE):

The multicell line storm, or squall line, consists of a long line of storms with a continuous well-developed gust front at the leading edge of the line. The sequence of storms can be solid, or there can be gaps and breaks in the line.

Squall lines can produce hail up to golf ball size, heavy rainfall, and weak tornadoes, but they are best known as the producers of strong downdrafts. Occasionally, a strong downburst will accelerate a portion of the squall line ahead of the rest of the line. This produces what is called a bow echo. Bow echoes can develop with isolated cells as well as squall lines. Bow echoes are easily detected on the radar but are difficult to observe visually.

#### THE SUPERCELL STORM:

The supercell is a highly organized thunderstorm. Supercells are rare but pose a high threat to life and property. A supercell is similar to a single-cell storm because they have one main updraft. The difference in the updraft of a supercell is that the updraft is powerful, reaching estimated speeds of 150-175 miles per hour. The main characteristic which sets the supercell apart from the other thunderstorm types is the presence of rotation. When visible on radar, the rotating updraft of a supercell (called a mesocycle) helps the supercell to produce extreme severe weather events, such as giant hail (more than 2 inches in diameter, strong downbursts of 80 miles an hour or more, and strong to violent tornadoes.

The surrounding environment is a significant factor in the organization of a supercell. For example, winds are coming from different directions to cause rotation. And, as precipitation is produced in



the updraft, the solid upper-level winds blow the rainfall downwind. As a result, hardly any rain falls through the updraft so that the storm can survive for long periods.

The leading edge of the precipitation from a supercell is usually light rain. Heavier rainfalls closer to the updraft with torrential rain and/or large hail immediately north and east of the main updraft. The area near the main updraft (typically towards the storm's rear) is preferred for severe weather formation.

While most Thunderstorms and Wind events are relatively minimal short-term events in Charlton County, the City of Folkston, and the City of Homeland, there is also the possibility of long-term Thunderstorms and Wind events associated with Hurricane/Tropical Storm events or passing fronts. Thunderstorms and Wind events typically last thirty (30) minutes. Thunderstorms and Wind events can occur at any time but are most likely to happen in the afternoon and evening hours in the spring and summer.

**NOAA defines thunderstorms** as rain showers during which thunder is heard. According to its strength and severity, the wind is categorized using the Beaufort Wind Scale, developed in 1805 by Sir Francis Beaufort of the U.K. Royal Navy. The Beaufort Wind Scale is shown in the table below.

**Beaufort Wind Scale**  
Developed in 1805 by Sir Francis Beaufort of England

Force	Wind		WMO Classification	Appearance of Wind Effects	
	Kts	MPH		On the Water	On Land
0	Less than 1	Less than 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-3	1-4	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	5-7	Light Breeze	Small wavelets, crests glassy, no breaking	Wind felt on face, leaves rustle, vanes begin to move
3	7-10	8-12	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	11-16	13-18	Moderate Breeze	Small waves 1-4 ft. becoming longer, numerous whitecaps	Dust, leaves, and loose paper lifted, small tree branches move
5	17-21	19-24	Fresh Breeze	Moderate waves 4-8 ft taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	22-27	25-31	Strong Breeze	Larger waves 8-13 ft, whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	28-33	32-38	Near Gale	Sea heaps up, waves 13-20 ft, white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	39-46	Gale	Moderately high (13-20 ft) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Whole trees in motion, resistance felt walking against wind
9	41-47	47-54	Strong Gale	High waves (20 ft), sea begins to roll, dense streaks of foam, spray may reduce visibility	Slight structural damage occurs, slate blows off roofs
10	48-55	55-63	Storm	Very high waves (20-30 ft) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	56-63	64-72	Violent Storm	Exceptionally high (30-45 ft) waves, foam patches cover sea, visibility more reduced	
12	64+	73+	Hurricane	Air filled with foam, waves over 45 ft, sea completely white with driving spray, visibility greatly reduced	

<https://www.spc.noaa.gov/faq/tornado/beaufort.html>

## **B. Profile of Thunderstorm and Wind Events, Frequency of Occurrences, Probability:**

The historical record for Thunderstorms and Wind is spotty at best, with many unreported or underreported events. Charlton County, the City of Folkston, and the City of Homeland are vulnerable to Thunderstorms and Wind due to their unpredictability and random occurrences. Still, the effects, if any, are usually minimal.

Members of the Charlton County HMPUC have witnessed many unreported and underreported cases of minimal to severe Thunderstorms & Wind events occurring within Charlton County, Folkston, and the City of Homeland.

### Charlton County (Including the Cities of Folkston and Homeland):

According to National Climatic Data Center information (see Appendix F), 104 reports of Thunderstorms/Wind occurred in Charlton County (including the City of Folkston and the City of Homeland) between 01/01/1950 and 12/31/2017. The total cost reported was \$276,500.00 (including \$50,000.00 in crop damage). Total injuries were reported as two (2). More severe storm events have occurred in the past. Another significant storm occurred in the unincorporated community of Moniac on Nov. 6, 2002. On Aug. 13, 2008, a storm in the City of Homeland caused a tree to fall on a trailer home and injured two residents. The victims were taken to the local hospital. During a recent storm event on August 19, 2014, a tree was blown down at the intersection of Orange and Lincoln Streets in Homeland. Many large trees fell across power lines, causing widespread outages, and damage was estimated at \$10,000. Since 2017 there have been seven reports to the National Climatic Data Center, bringing the total to 111 Thunderstorm/Wind storms. These storms had thunderstorm winds, trees, and power lines down, damaging bursts causing extensive wind damage and damage to trees in Stephen Foster State Park, located in Charlton County. There were no reported costs of damage during these periods of storms. On April 23, 2020, severe thunderstorms caused hail, power outages, and downed trees.

With the best available information in Charlton County (including the Cities of Folkston and Homeland), have recorded 104 events in 71 years with a Historic Recurrence Interval of 0.64 years. This is a 156.34% Historic Frequency Chance per year. The past ten (10) year's Record Frequency Per Year is 2.7, the past twenty (20) years is 2.45, and the past fifty (50) years is zero (see GEMA PDM Hazard Frequencies Table contained in Appendix D Section I). Since the previous Hazard Mitigation Plan was completed, 13 thunderstorm/wind events have resulted in downed trees, road debris, and downed power lines.

The GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A Section V), based on the predicted model of the GEMA database, do not address the hazard of Thunderstorms; however, maps, etc., have been printed out showing no data (see Appendix A section V). Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A Section V) address the Wind hazard. This model has determined that Charlton County, Folkston, and the City of Homeland are all within the Wind hazard area. This model also attempts to determine certain wind speed areas for the hazard of

Wind and has identified Wind speeds of 90 mph to 99 mph & 100 mph to 109 mph. Therefore, 100% of Charlton County, Folkston, and the City of Homeland are some Wind Hazard areas. Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

These GEMA wind maps are basic wind speeds for three (3) second wind gust speeds with a fifty (50) year return interval that are contained in the 2000 International Building Code and place Charlton County in two (2) separate areas (See Appendix). These areas are 90-99 mph and 100-109 mph for a three (3) second gust. The Wind hazard map shows that the 90-99 mph Wind boundary area is small on the extreme west side of Charlton County to the Charlton County line. The 100-109 mph Wind boundary area is the entire county, including Folkston and the City of Homeland, east of the Charlton County line.

Since the previous plan was completed, notable thunderstorm/wind events have occurred (see above). Listing these events does not include Hurricane/Tropical Storm events, for which this plan has a separate section.

Since the previous plan was completed, no changes have affected the community's overall vulnerability to the hazard.

#### **C./D. Inventory of Assets Exposed and Potential Loss to Thunderstorms & Wind:**

The threat of Thunderstorms & Wind is constant in Charlton County, the City of Folkston, and the City of Homeland due to the unpredictability and random occurrence of the hazard. It is difficult to predict when and where they will occur and the potential damage they will cause due to the hazard and the strength levels of the Thunderstorms and Wind that may arise.

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Charlton County and the Cities of Folkston and Homeland are equally vulnerable to this hazard. Due to the lack of data broken down by jurisdiction, it was impossible to obtain these data at the jurisdictional level, so the estimates provided are for Charlton County, including all the cities.

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

While we have these values listed, we recognize that a Thunderstorms & Wind event would not usually fully impact these properties' value or be big enough to wipe out all assets.

### **E. Land Use and Development Trends Related to Thunderstorms & Wind:**

Wetland areas are protected by ordinance. In addition, soil and Sedimentation Control Ordinances are in effect.

Current trends are for agricultural areas to be converted to residential areas.

Charlton County, Folkston, and the City of Homeland are all National Flood Insurance Program members. In addition, all local governments have some part of their jurisdiction located within a floodplain. Floodplain maps for each local government are located in Appendix A.

Charlton County and the Cities of Folkston and Homeland do not participate in the Community Rating System (CRS) program. As of August 12, 2021, they were not eligible according to FEMA (<http://www.fema.gov/library/viewRecord.do?id=3629>) and other information at <http://www.fema.gov>.

Since the previous plan was completed, no community development changes would increase or decrease the community's overall vulnerability to the hazard.

### **F. Multi-Jurisdictional Thunderstorm & Wind Differences:**

All of Charlton County, the City of Folkston, and the City of Homeland may be equally affected by Thunderstorms & Wind. However, the impact may be more severe in places with higher population density due to more people being in danger, more people needing to be evacuated, more debris from damaged buildings, and other impacts associated with higher population density.

100% of Charlton County, Folkston, and the City of Homeland are in Wind Hazard areas. Complete inventory information is contained at <https://www.itos.uga.edu/gema>. The GEMA wind maps, which show basic wind speeds for three (3) second wind gust speeds with a fifty (50) year return interval, as defined in the 2000 International Building Code, place Charlton County in two (2) separate areas (See Appendix A). These areas are 90-99 mph and 100-109 mph for a three (3) second gust. The Wind hazard map shows that the 90-99 mph Wind boundary area is small on the extreme west side of Charlton County to the Charlton County line. The 100-109 mph Wind boundary area is the entire county, including Folkston and the City of Homeland, east of the Charlton County line.

### **G. General Overall HRV Summary of Thunderstorms & Wind Events and Their Impact on The Community:**

Thunderstorms & Wind can cause damage anywhere, anytime, throughout Charlton County and the Cities of Folkston and Homeland. Of course, the cost of the damage and potential loss of life may be higher if Thunderstorms & Wind occur in populated areas and municipalities as opposed to if they were to occur in more agricultural-based sections of Charlton County. However, most Thunderstorms and Wind that pass through the area cause minimal to no damage.

The Charlton County HMPUC recognizes Thunderstorms & Wind as one of the most likely natural hazards to occur and cause damage. Therefore, they developed a comprehensive range of

Mitigation Goals, Objectives, and Action Steps to lessen Thunderstorm & Wind's impact on Charlton County, Folkston, and the City of Homeland. These are contained in Chapter 3, Section V.

Since the previous plan was approved, there are no new community development changes that would increase or decrease the community's overall vulnerability to this hazard.

## **Section VI**

### **Severe Winter Storm**

#### **A. Identification of Hazard:**

The Charlton County HMPUC has chosen the threat of a Severe Winter Storm as one of the most likely hazards to occur & cause damage in Charlton County, the City of Folkston, and the City of Homeland based on experience; the FEMA described methodology and other factors. In addition, historical data has been examined from various sources (See Appendix A) and the National Climatic Data Center (see Appendix F) and from local history and personal accounts to determine the frequency of events.

Severe Winter Storms are destructive and may occur during the winter months. Unfortunately, Charlton County, the City of Folkston, and the City of Homeland are usually not prepared to handle Severe Winter Storms, unlike those in northern counties and cities that routinely deal with this hazard. In addition, because people in this area are generally not prepared for these Severe Winter Storms, they frequently have automobile accidents. Being unprepared may result in loss of life or substantial damage to property and the economy.

Severe Winter Storms, at the worst, will produce 1" inch to 2" inches of snow and/or freezing rain-producing sleet with temperatures usually in the teens and below. Most snowfall from winter storms typically melts within 24 hours. The damage that results from these storms may be substantial depending on the severity and longevity of the event, but they are usually minimal. Possible damage includes downed tree limbs, impassable roadways, power outages, increased emergency services workloads, and failed water/sewer/septic systems on a private and city-wide system.

#### **B. Profile of Severe Winter Storm Events, Frequency of Occurrences, Probability:**

The historical record for Severe Winter Storms is spotty at best, with many unreported or underreported events. Charlton County, Folkston, and the City of Homeland are vulnerable to Severe Winter Storms, but the effects are usually minimal. Severe Winter Storms can occur during the winter months, with some warnings in advance.

Members of the Charlton County HMPUC have witnessed many unreported and underreported cases of minimal to Severe Winter Storm events occurring within Charlton County, the City of Folkston, and the City of Homeland.

Charlton County (Including the Cities of Folkston and Homeland):



According to National Climatic Data Center information (see Appendix F), there was one (1) report of a Sleet/Severe Winter Storm occurring in Charlton County (including the Cities of Folkston and Homeland) on 1/29/2014. During this bizarre winter weather event, freezing rain and snow flurries occurred when an area of low pressure deepened offshore of the FL/GA Atlantic coast, and cold and moist air funneled southward over southeast Georgia and northeast Florida. Sleet and snow flurries occurred along U.S. Highway 301 between Folkston and Winokur. Icy and slippery roads were recorded. Since 2014 there has been one additional winter storm. On January 3, 2018, low-level solid winds created an area of freezing precipitation across the area, with freezing rain up to 0.50 thick across NE FL and SE GA, generally south of Waycross, with a historic snowfall from Homerville to Waycross to Jesup northward with amounts of 2-4 inches and up to 6 inches. Due to frozen precipitation, widespread power outages occurred, and numerous roads were closed.

According to the NOAA Storm Events Database (see Appendix F), one report of Winter Storms occurred in Charlton County (including the Cities) on January 3, 2018. However, a winter storm occurred on January 29, 2014. The Historic Recurrence Interval is 7.89 years. This is a 2.82% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.2, the one-time 20-year frequency is 0.1, and the past 50-year frequency is 0.04 (see the Hazard Frequency Table in Appendix D).

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A Section VI) do not address Severe Winter Storms. Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

Since the previous plan was approved, there are no new community development changes that would increase or decrease the community's overall vulnerability to this hazard.

#### **C./D. Inventory of Assets Exposed and Potential Loss to Severe Winter Storms:**

The threat of a Severe Winter Storm in Charlton County, the City of Folkston, and the City of Homeland would primarily occur in the winter months, usually giving some warning in advance. It is not easy to figure out when and where they will occur and the potential damage they will cause due to the hazard and strength levels of the Severe Winter Storms. On January 3, 2018, a winter storm caused power outages for several days, and trees were damaged across the county. Heavy precipitation and chills caused icicles to form on vegetation and structures.

In GEMA Worksheet 3A: Inventory of Assets appearing in Appendix A, we estimate that Charlton County and the Cities of Folkston and Homeland are vulnerable to Severe Winter Storms.

##### Charlton County (including the Cities of Folkston and Homeland):

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education,

and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

While we have these values listed, we recognize that Severe Winter Storms would not usually fully impact these properties' value or be big enough to wipe out all assets. An exception for certain areas may be during a fire or wildfire in which the fire hydrant's water lines, or a fire truck's water tanks, may be frozen and thus cannot be used.

#### **E. Land Use and Development Trends Related to Winter Storms:**

Since the previous plan was completed, no community development changes would increase or decrease the community's overall vulnerability to the hazard.

#### **F. Multi-Jurisdictional Severe Winter Storm Differences:**

All of Charlton County, the City of Folkston, and the City of Homeland may be affected by Severe Winter Storms. On icy roads, hazards would be more significant along high-traffic corridors (US-1, US-301, GA-40, GA-252, and GA #121) and in more densely populated areas (mainly the Cities of Folkston and Homeland). In addition, the impact of crop damage would likely be more severely felt in unincorporated Charlton County, where more of the land is devoted to agriculture.

In Worksheet 3A: Inventory of Assets appearing in Appendix A, we estimate that 100% of Charlton County and the Cities of Folkston and Homeland are vulnerable to Severe Winter Storms.

No differences between the jurisdictions have been identified at this time.

#### **G. General Overall HRV Summary of Severe Winter Storm Events and Their Impact on The Community:**

Severe Winter Storms can cause damage at any place, at any time during the winter months, throughout Charlton County, the City of Folkston, and the City of Homeland. Of course, the cost of the damage and potential loss of life may be higher if the Severe Winter Storms were to occur in populated areas and municipalities, as opposed to if they were to occur in more agricultural-based sections of Charlton County. However, most Severe Winter Storms that pass through the area cause minimal damage.

The Charlton County HMPUC recognizes Severe Winter Storms as one of the most likely natural hazards to occur and cause damage. Therefore, they developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen Severe Winter Storm impacts on Charlton County, Folkston, and the City of Homeland. These are contained in Chapter 4.

## Section VII

### Hail

#### A. Identification of Hazard:

The Charlton County HMPUC has chosen the threat of Hail as one of the most likely hazards to occur & cause damage in Charlton County, the City of Folkston, and the City of Homeland; based on experience, the FEMA described methodology and other factors. In addition, historical data has been examined from various sources (see Appendix A) and the National Climatic Data Center (see Appendix F) and from local history and personal accounts to determine the frequency of events.

Hail is precipitation in the form of lumps of ice in some storms. They are usually round and vary from pea size up to grapefruit size. Hailstones generally form in thunderstorms between currents of rising air called the updraft and the current of air descending toward the ground called the downdraft. Large Hailstones indicate strong updrafts in storms. The larger the Hail, the stronger the updraft needed to hold it aloft in the storm.

In storms that cause Tornadoes, Hail often falls directly to the northeast or east of the path of the Tornado. The strong updraft is associated with the part of the storm that produces the Tornado. Fortunately, Hail very rarely kills anyone. However, a couple of dozen people are injured by Hailstones each year. Of course, the best way to keep safe in Hailstorms is to seek shelter immediately.

While a relatively short-term event in one location, it goes without saying that Hail is destructive and may occur at any time with various storms. Although that is the case, it may be more likely to occur during Tornado season in Georgia, typically from March through August, or during Hurricane/Tropical Storm season, typically from June 1 through November 30.

#### B. Profile of Hail Events, Frequency of Occurrences, Probability:

The historical record for Hail is spotty at best, with many unreported or underreported Hail events. Charlton County, Folkston, and the City of Homeland are vulnerable to Hail due to its unpredictability and random occurrence. Still, the damage effects, if any, vary with the storm.

Members of the Charlton County HMPUC have witnessed many unreported and underreported. Hail events occurred in Charlton County, the City of Folkston, and the City of Homeland.

#### Charlton County (Including the Cities of Folkston and Homeland):

According to the National Climatic Data Center information (see Appendix F), there were 49 Reports of Hail occurring in Charlton County (including the City of Folkston and the City of Homeland) between 01/01/1950 and 12/31/2017

Since 2017 (03/20/2018 thru 06/18/2022), there has been 22 reports of hail, as reported on the Interactive Hail Maps [Interactive Hail Maps - Hail Map for Folkston, GA](#). There was one report of 1.34-



inch hail (Golf Ball Size), and 4 reports of 1.00-inch hail (Quarter Size).

With a total of 71 Hail events in 71 years, there is a Historic Recurrence Interval of 1.00 years with the best available information. This is a 100% Historic Frequency Chance per year. The past ten (10) year's Record Frequency Per Year is 2.6, the past twenty (20) years is 2.75, and the past fifty (50) years is 1.42 (See GEMA PDM Hazard Frequencies Table contained in Appendix D).

#### **C./D. Inventory of Assets Exposed and Potential Loss to Hail:**

The threat of Hail is a constant in Charlton County, the City of Folkston, and the City of Homeland due to the unpredictability and the random occurrence of the hazard; however, it may occur more frequently during Tornado season (March through August) or during Hurricane/Tropical Storm Season (June 1 through November 30). The potential damage it will cause is not easy to determine when and where it will occur due to Hail's hazard, amount, and size. In addition, Hail may move randomly from place to place and miss entire areas completely.

In GEMA Worksheet 3A: Inventory of Assets (Appendix A), we estimate Charlton County, Folkston, and the City of Homeland are vulnerable to Hail.

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

Damage to crops is not considered in any of these figures. According to the most recent statistics (2020) on The University of Georgia's Website [www.georgiastats.uga.edu](http://www.georgiastats.uga.edu) (Georgia County Guide), Poultry/Eggs, Row & Forage Crops, Livestock/Aquaculture, Forestry & Forest Products, Vegetables, Ornamental & Horticultural, Fruits & Nuts and Other including Agritourism account for a total Farm Gate Value total of approximately \$19,774,022.

While we have these values listed, we recognize that a Hail event would not typically fully impact these properties' value or be big enough to wipe out all assets.

#### **E. Land Use and Development Trends Related to Hail:**

The 100-year floodplain protects the St. Marys River and the Satilla River. No septic systems are allowed within 100 feet of the river. However, there is a great danger of fecal coliform contamination of river waters due to flooding of both old and hardship septic tank systems located along the rivers and tributaries. Therefore, water recharge areas are currently protected by ordinance. The ordinance covers wetland areas. In addition, soil and Sedimentation Control Ordinances are in effect.

Current trends are for agricultural areas to be converted to residential areas.

Charlton County, Folkston, and the City of Homeland are all National Flood Insurance Program members. In addition, all local governments have some part of their jurisdiction located within a floodplain. Floodplain maps for each local government are located in Appendix A Section II.

Charlton County and the Cities of Folkston and Homeland do not participate in the Community Rating System (CRS) program. Therefore, as of August 25, 2017, they were not eligible according to FEMA (<http://www.fema.gov/library/viewRecord.do?id=3629>) and other information at <http://www.fema.gov>.

Since the previous plan was completed, no community development changes would increase or decrease the community's overall vulnerability to the hazard.

#### **F. Multi-Jurisdictional Hail Differences:**

All of Charlton County, the City of Folkston, and the City of Homeland may be affected by Hail.

In GEMA Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that Charlton County, Folkston, and the City of Homeland are vulnerable to Hail.

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A) do not address the hazard of Hail. However, a map showing no data has been printed out (see Appendix A). Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

No differences between the jurisdictions have been identified at this time.

#### **G. General Overall HRV Summary of Hail Events and Their Impact on the Community:**

Hail can cause damage at any place, anywhere throughout Charlton County, the City of Folkston, and the City of Homeland. The cost of the damage will vary depending on the size and quantity of hailstones and where they land. Damage to vehicles (especially roof dents) is one of the most widespread effects of major hailstorms; injuries to people are rarer but not unheard of. Therefore, the damage effects of hail, if any, vary with the storm.

The Charlton County HMPUC recognizes Hail as one of the most likely natural hazards to occur and cause damage. Therefore, they developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen Hail's impact on Charlton County, Folkston, and the City of Homeland. These are contained in Chapter 4, Section VII.

## Section VIII

### Drought

#### A. Identification of Hazard:

The Charlton County HMPUC has chosen the threat of a Drought as one of the most likely hazards to occur & cause damage in Charlton County, the City of Folkston, and the City of Homeland; based on experience, the FEMA described methodology and other factors. In addition, historical data has been examined from various sources (see Appendix A) and the National Climatic Data Center (see Appendix F), and local history and personal accounts to determine the frequency of events.

Drought is usually the result of several factors that gradually increase dry conditions in the community until they reach severe and extreme conditions. These factors could be weather patterns, lack of rainfall, wind conditions, lack of water from rivers & upstream areas, or other factors.

Although Drought is usually associated with the summer months due to its more visible effects, it can occur anytime. Its effects can last throughout the year and continue from year to year. These effects may range from agricultural losses, increased wildfire and fire risk, lack of water for citizens, firefighting increased flooding risk, and many other effects that influence other hazards and the community's safety.

Crops (including trees) are usually most adversely affected by these events, along with county and city residents who lose water due to these events. In addition, many Charlton County residents and some of Folkston and the City of Homeland have shallow wells that often go dry during Drought periods, thus leaving those residents without water for extended periods.

The **Palmer Z Index** measures short-term drought on a monthly scale. The Palmer **Crop Moisture Index (CMI)** measures short-term drought weekly and quantifies drought's impacts on agriculture during the growing season.

The **Palmer Drought Severity Index (PDSI)** (known operationally as the *Palmer Drought Index (PDI)*) attempts to measure the duration and intensity of long-term drought-inducing circulation patterns. Long-term drought is cumulative, so the intensity of drought during the current month depends on the current weather patterns and the cumulative patterns of previous months. Since weather patterns can change almost overnight from a long-term drought pattern to a long-term wet pattern, the PDSI (PDI) can rapidly respond.

The hydrological impacts of drought (e.g., reservoir levels, groundwater levels, etc.) take longer to develop, and it takes longer to recover from. **Palmer Hydrological Drought Index (PHDI)**, another long-term drought index, was designed to quantify these hydrological effects. However, the PHDI responds more slowly to changing conditions than the PDSI (PDI).

The U.S. Drought Monitor <http://droughtmonitor.unl.edu/archive.html> is produced in partnership with the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United

States Department of Agriculture, and the National Oceanic and Atmospheric Administration and has been used to determine some of our data information.

It utilizes a variety of sources, including the Palmer Index(s), to rate an area as D0 (Abnormally Dry), D1 (Moderate Drought), D2 (Severe Drought), D3 (Extreme Drought), and D4 (Exceptional Drought). Any area rated at D0 or above was considered to be in a Drought for this plan.

There have been cases in Charlton County, Folkston, and the City of Homeland where Drought conditions have lasted for years.

The U.S. Drought Monitor (<http://droughtmonitor.unl.edu>), established in 1999, is a weekly map of drought conditions produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The U.S. Drought Monitor website is hosted and maintained by the NDMC. The Drought Monitor summary map identifies general drought areas, labeling droughts by intensity, with D1 being the least intense and D4 being the most intense. Descriptions of these categories are provided in the table below (source: <http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx>)

Category	Description	Possible Impacts
<b>D0</b>	Abnormally Dry	<p>Going into drought:</p> <ul style="list-style-type: none"> <li>▪ short-term dryness slowing planting, growth of crops or pastures</li> </ul> <p>Coming out of drought:</p> <ul style="list-style-type: none"> <li>▪ some lingering water deficits</li> <li>▪ pastures or crops not fully recovered</li> </ul>
<b>D1</b>	Moderate Drought	<ul style="list-style-type: none"> <li>▪ Some damage to crops, pastures</li> <li>▪ Streams, reservoirs, or wells low, some water shortages developing or imminent</li> <li>▪ Voluntary water-use restrictions requested</li> </ul>
<b>D2</b>	Severe Drought	<ul style="list-style-type: none"> <li>▪ Crop or pasture losses likely</li> <li>▪ Water shortages common</li> <li>▪ Water restrictions imposed</li> </ul>
<b>D3</b>	Extreme Drought	<ul style="list-style-type: none"> <li>▪ Major crop/pasture losses</li> <li>▪ Widespread water shortages or restrictions</li> </ul>
<b>D4</b>	Exceptional Drought	<ul style="list-style-type: none"> <li>▪ Exceptional and widespread crop/pasture losses</li> <li>▪ Shortages of water in reservoirs, streams, and wells creating water emergencies</li> </ul>

Example maps from the week of December 29, 2021, and March 3, 2022, show moderate to no drought conditions throughout southern Georgia, including Charlton County. (Appendix A.VI) [https://droughtmonitor.unl.edu/data/png/20201229/20201229\\_GA\\_date.png](https://droughtmonitor.unl.edu/data/png/20201229/20201229_GA_date.png)

In June 2022, the average temperature in Charlton County was 81° and warmer than average when compared to all Junes since 1985. (Appendix A.VI) <https://usafacts.org/issues/climate/state/Georgia/county/Charlton-county>

## **B. Profile of Drought Events, Frequency of Occurrences, Probability:**

The historical record for Drought is spotty at best, with many unreported or underreported Drought events. Charlton County, Folkston, and the City of Homeland are vulnerable to Drought due to its unpredictability and widespread coverage. The effects range depending on the severity of the drought and the length of time.

Members of the Charlton County HMPUC have witnessed many unreported and underreported cases of Drought events occurring within Charlton County, Folkston, and the City of Homeland. Charlton County (including the Cities of Folkston and Homeland):

According to the National Climatic Data Center information (see Appendix F), there is one (1) report of a Drought occurring in Charlton County (including the Cities of Folkston and Homeland) occurring on 12/1/2006. The total cost reported was \$0.00. Real injuries were reported as zero (0).

According to the 2018 HMP, 303 reports of drought events (D1, D2, D3, or D4) occurred in Charlton County (including the Cities) between 01/01/2000 and 12/31/2017. According to U.S. Drought Monitor data (see Appendix A), there are 24 reports of drought events (D1, D2, D3, or D4) occurring in Charlton County (including the Cities) between 01/01/2018 and 12/31/2021. This brings the total to 327 drought days. The Historic Recurrence Interval is 0.07 years. This is a 1421.74% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 17.2%, the one-time 20-year frequency is 16.35, and the one-time past 50-year frequency is 6.54 (see the Hazard Frequency Table in Appendix D). These numbers include the one event listed in the NCDC mentioned above.

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A) do not address the hazard of Drought; however, a map, etc., has been printed out showing no data (see Appendix A Section VIII). Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

Since the previous plan was completed, no changes have affected the community's overall vulnerability to this hazard.

## **C./D. Inventory of Assets Exposed and Potential Loss to Drought:**

The threat of a Drought is constant in Charlton County, the City of Folkston, and the City of Homeland due to the unpredictability and widespread coverage of the hazard. Drought events tend



to be area-wide and will likely not be limited to certain community areas. However, the effect on residents will depend on the infrastructure and services available (for example, the depth of wells).

In Worksheet 3A: Inventory of Assets appearing in Appendix A, we estimate that Charlton County and the Cities of Folkston and the Homeland area are vulnerable to Drought.

Charlton County (including the Cities of Folkston and Homeland):

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

While we have these values listed, we recognize that a Drought event would not usually fully impact the value of these properties or be big enough to wipe out all assets.

**E. Land Use and Development Trends Related to Drought:**

Wetland areas are protected by ordinance. In addition, soil and Sedimentation Control Ordinances are in effect.

Charlton County has enacted a subdivision ordinance. There is at least a 4-5-mile area already zoned around the City of Folkston and the City of Homeland, with the majority being either agricultural or some form of residential. There is more residential zoning in the City of Folkston and the City of Homeland than anything else. In addition, highways in the City of Folkston are zoned for setbacks.

Current trends are for agricultural areas to be converted to residential areas.

Since the previous plan was completed, no community development changes would increase or decrease the community's overall vulnerability to the hazard.

**F. Multi-Jurisdictional Drought Differences:**

All of Charlton County, the City of Folkston, and the City of Homeland may be affected by Drought. However, there is an equal chance of Drought occurring in any jurisdiction.

In Worksheet 3A: Inventory of Assets appearing in Appendix A, we estimate that Charlton County and the Cities of Folkston, and the Homeland area are vulnerable to Drought.

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A) do not address Drought; however, a map, etc., has been printed out showing no data (see Appendix A). Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

Due to the area-wide nature of drought events, Charlton County and the Cities of Folkston and Homeland are at equal risk. However, households in unincorporated Charlton County are served by well water (unless r systems serve them). In contrast, the Cities of Folkston and Homeland operate their municipal water and sewer systems. According to the City Clerk, the City of Folkston can withdraw up to 1.500 million gallons daily. According to the City Clerk, the City of Homeland can withdraw up to 150,000 gallons daily. Due to the capacity of the municipal water systems, it is predicted that households in the Cities of Folkston and Homeland will be better protected from drought-related water shortages than households in the unincorporated county, which must rely on their local wells for water. Unfortunately, data regarding the depth of individual wells is not currently available.

No differences between the jurisdictions have been identified at this time.

#### **G. General Overall HRV Summary of Drought Events and Their Impact on the Community:**

Drought can cause damage anywhere and anytime throughout Charlton County, the City of Folkston, and the City of Homeland. Of course, the cost of the damage may not be as high if the Drought were to occur in populated areas and municipalities as opposed to if it were to occur in more agricultural-based sections of Charlton County.

The Charlton County HMPUC recognizes Drought as one of the most likely natural hazards to occur and cause damage. Therefore, they developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the Drought impact on Charlton County, Folkston, and the City of Homeland. These are contained in Chapter 4, Section VIII.

## **Section IX Lightning**

### **A. Identification of Hazard:**

Lightning is a giant spark of electricity in or between the atmosphere and the ground. In the initial stages of development, air acts as an insulator between the positive and negative charges in the cloud and between the cloud and the ground; however, when the differences in amounts become too great, this insulating capacity of the air breaks down, and there is a rapid discharge of electricity that we know as lightning. Lightning most often strikes during thunderstorms but can strike many miles from the storm's center or even in areas not covered by a storm (this phenomenon is known as a “bolt from the blue”).

According to NOAA (<http://www.lightningsafety.noaa.gov/>), lightning strikes the United States about 25 million times yearly. Although most lightning occurs in the summer, people can be attacked at any time of year. Lightning kills an average of 47 people in the United States annually, and hundreds more are severely injured.

Lightning can strike in any place and time but is not attracted to metal, contrary to popular myth. Tall, isolated structures with a pointy shape are most likely to be struck by lightning. When thunder



and lightning are present, the best action is to seek shelter inside a robust building. Sheltering under a tree increases the risk of getting struck by lightning and is more dangerous than being out in the open. Most cars protect their occupants from lightning because they have metal roofs and sides; contrary to popular myth, it is not the car's rubber tires that protect the occupants. When sheltering inside a building, one should avoid metal objects (metal doors, plumbing, electronics, etc.). (Source: <http://www.lightningsafety.noaa.gov/myths.shtml>)

The Charlton County HMPUC has chosen the threat of Lightning as one of the most likely natural hazards to occur & cause damage in Charlton County and the Cities of Folkston and Homeland based on experience; the FEMA described methodology and other factors. Historical data has been examined from various sources (see Appendix A Section IX), including the National Climatic Data Center (see Appendix F), local history, and personal accounts to determine the frequency of events. In addition, hazard maps generated by the GMIS Critical Facilities Inventory were examined.

Lightning has the potential to be destructive and may occur at any time. Thunderstorms with Lightning may develop quickly in Charlton County and the Cities of Folkston and Homeland due to inclement weather conditions, a passing front, or Hurricane/Tropical Storm events.

Lightning is one of the most common weather products in our atmosphere. It can create a dazzling display of light and sound but do not underestimate these storms. They can cause serious injury, substantial property damage, and even death. Lightning associated with these events is perhaps one of the leading causes of wildfires in Charlton County. Lightning can occur even if it is not raining.

While most events that cause Lightning are relatively minimal short-term events in Charlton County and the Cities of Folkston and Homeland, long-term Lightning events may also be associated with Hurricanes/Tropical Storms or passing fronts. Lightning events typically last thirty (30) minutes. Lightning events can occur at any time but are most likely to happen in the afternoon and evening hours in the spring and summer.

## **B. Profile of Lightning Events, Frequency of Occurrences, Probability:**

The historical record for Lightning is spotty at best, with many unreported or underreported events. All of Charlton County and the Cities of Folkston and Homeland are vulnerable to Lightning due to their unpredictability and random occurrences, but the effects are usually minimal.

The Charlton County HMPUC has witnessed many unreported and underreported cases of minimal to severe Lightning events occurring within Charlton County and the Cities of Folkston and Homeland.

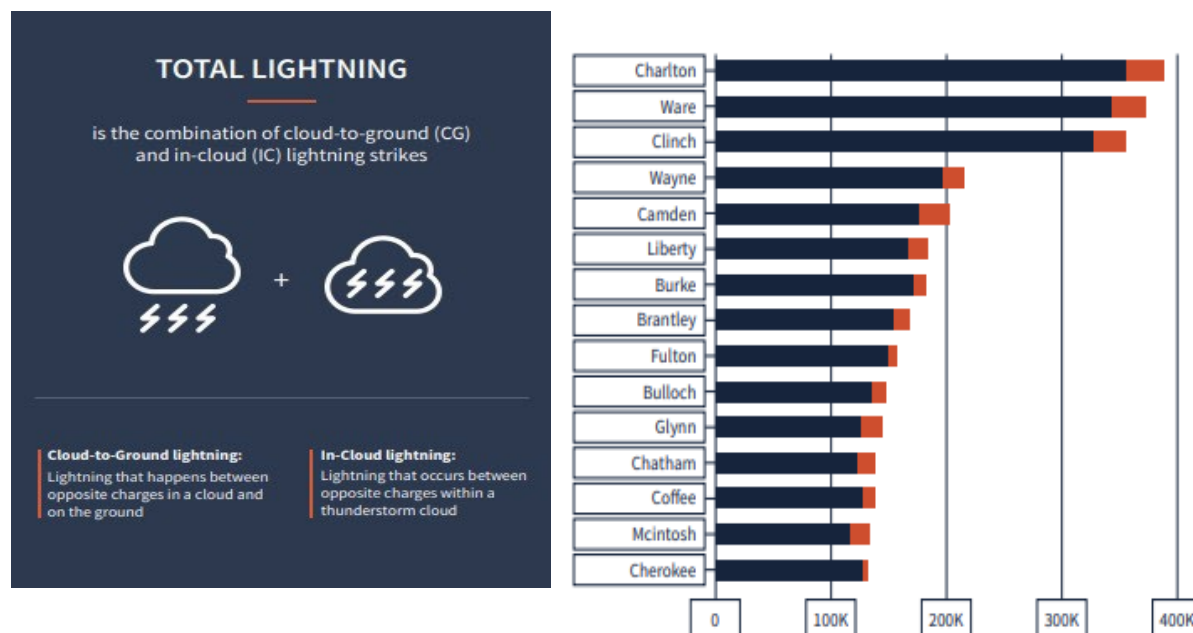
### Charlton County (including the Cities of Folkston and Homeland):

According to National Climatic Data Center information (see Appendix F), there was one (1) report of Lightning occurring in Charlton County (including the Cities of Folkston and Homeland) between 1/1/1950 and 12/31/2021. The first event occurred on 8/15/2012 and was considered a

major event, costing \$2,000.00. Lightning started a fire at a power substation in Folkston. As a result, power outages caused customers in Charlton, Camden, and Nassau counties. Total injuries were reported as zero (0). Since the previous Hazard Mitigation Plan was approved, one lightning event was recorded on 07/21/2019. The lightning strike caused a structure fire at the Badcock Home Furniture store in Folkston near 1st and Elm Streets. The structure was a total loss. A home nearby was also struck by lightning but did not catch fire. The cost of damage was unknown, but it was estimated to include the event in the Storm Data. (Sheriff's office struck by lightning in 2021, \$120,000 damage) Hampton to verify this.

According to past plans and information obtained from the NOAA Climatic Data Base, the Historic Recurrence Interval is 35.50 years. This is a 2.82% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.2, the one-time 20-year frequency is 0.01, and the past 50-year frequency is 0.04 (see the Hazard Frequency Table in Appendix D). Other reports show that lightning strikes happen more than reported by NOAA. (See below).

Earth Networks 2020 Georgia Lightning Report states that Charlton County was No. 1 for the total pulses for 2020, with over 300,000 cloud-to-ground pulses and almost 400,000 in-cloud pulses. (See the below chart.)



Georgia ranked No. 3 in the Top 10 States for Homeowners Insurance Lightning Losses by Claims in 2021 (*Source: Insurance Information Institute*). So far, in 2022, through August 4, 2022, there have been two deaths in Georgia due to lightning (*National Weather Service*).

While Thunderstorms, Hurricanes, and Tropical Storms (which would usually contain Lightning) were reported by NCDC during the period calculated, the number of Lightning flashes/ strikes was unable to be calculated.

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A) do not address the hazard of Lightning; however, a

map, etc., has been printed out showing no data (see Appendix A). Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

Damage to crops is not considered in any of these figures. According to the most recent statistics (2020) on The University of Georgia's Website [www.georgiastats.uga.edu](http://www.georgiastats.uga.edu) (Georgia County Guide), Poultry/Eggs, Row & Forage Crops, Livestock/Aquaculture, Forestry & Forest Products, Vegetables, Ornamental & Horticultural, Fruits & Nuts and Other including Agritourism account for a total Farm Gate Value total of approximately \$19,774,022.

#### **C./D. Inventory of Assets Exposed and Potential Loss to Lightning:**

The threat of Lightning is constant in Charlton County, the City of Folkston, and the City of Homeland due to the unpredictability and random occurrence of the hazard. When and where it will occur and the potential damage it will cause is not easy to predict due to the hazard and the strength levels of accompanying storms, etc., that may occur.

In GEMA Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that Charlton County, Folkston, and the City of Homeland are vulnerable to Lightning.

#### **Charlton County (including the Cities of Folkston and Homeland):**

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

While we have these values listed, we recognize that a Lightning event would not usually fully impact these properties' value or be big enough to wipe out all assets.

#### **E. Land Use and Development Trends Related to Lightning:**

Current trends are for agricultural areas to be converted to residential areas. However, since the last Hazard Mitigation Plan was approved, there have not been any development changes impacting the community's overall vulnerability to the lightning hazard.

#### **F. Multi-Jurisdictional Lightning Differences:**

All of Charlton County, the City of Folkston, and the City of Homeland may be affected by Lightning. There is an equal chance of Lightning occurring in any jurisdiction.

In Worksheet 3A: Inventory of Assets appearing in Appendix A, we estimate that all of Charlton County and the Cities of Folkston and the Homeland area are vulnerable to Lightning.

Based on the predicted model of the GEMA database, the GMIS Critical Facilities Inventory Database Reports and Maps (see Appendix A Section IX) do not address Lightning; however, a

map, etc., has been printed out showing no data (see Appendix A). Complete inventory information is contained at <https://www.itos.uga.edu/gema>.

No differences between the jurisdictions have been identified at this time.

### **G. General Overall HRV Summary of Lightning Events and Their Impact on the Community:**

Lightning has the potential to cause damage at any place, at any time, throughout Charlton County and the Cities of Folkston and Homeland. Of course, the cost of the damage and potential loss of life may be higher if Lightning occurs in populated areas and municipalities than if it were to occur in more agricultural-based sections of Charlton County. However, most Lightning that passes through the area causes minimal to no damage.

The Charlton County HMPUC recognizes Lightning as one of the most likely natural hazards to occur and cause damage. Therefore, they developed Mitigation Goals, Objectives, Tasks, and Action Steps to lessen the Lightning impact on Charlton County and the Cities of Folkston and Homeland. These are contained in Chapter 4 Section IX.

## **Section X Extreme Heat**

### **A. Identification of Hazard:**

The threat of Extreme Heat has been chosen by the Charlton County HMPUC as one of the most likely natural hazards to occur and cause damage in Charlton County and the Cities of Folkston and Homeland based on experience, the FEMA described methodology and other factors. Historical data have been examined from various sources (see Appendix A), including the National Climatic Data Center (see Appendix F), local history, and personal accounts, to determine the frequency of events. In addition, hazard maps generated by the GMIS Critical Facilities Inventory were examined.

The major hazard of heat waves is not so much to infrastructure as to the population. Despite the comparatively warm climate of Charlton County and the Cities of Folkston and Homeland, many residents are not adequately prepared to handle extreme heat events (for example, those without air conditioning in their homes). The risk is exceptionally high for the elderly and the young. Extreme Heat is a hazard that may result in loss of life or damage to property and the economy. Due to weather forecasting methods, most extreme heat events can be predicted accurately ahead of time.

### **HEAT INDEX:**

The table below shows the heat index calculated by the National Weather Service. It is based on temperature and humidity.

### Heat Index Category and Effects

<i>Category</i>	<i>Heat Index</i>	<i>Possible heat disorders for people in high-risk groups</i>
Extreme Danger	130° F or higher	Heatstroke or sunstroke is likely.
Danger	105 - 129° F	Sunstroke, muscle cramps, and/or heat exhaustion are likely. Heatstroke is possible with prolonged exposure and/or physical activity.
Extreme Caution	90 - 105° F	Sunstroke, muscle cramps, and/or heat exhaustion are possible with prolonged exposure and/or physical activity.
Caution	80 - 90° F	Fatigue is possible with prolonged exposure and/or physical activity.

### **NOAA's Watch, Warning, and Advisory Products for Extreme Heat**

Each National Weather Service Forecast Office issues the following heat-related products as conditions warrant:

**Excessive Heat Outlooks:** Issued when the potential for an extreme heat event in the next 3-7 days. An Outlook provides information to those who need considerable lead time to prepare for the event, including public utility staff, emergency managers, and public health officials. See the forecast maps.

**Excessive Heat Watches:** Issued when conditions are favorable for an extreme heat event in the next 24 to 72 hours. A Watch is used when the risk of a heatwave has increased, but its occurrence and timing are still uncertain. A Watch provides enough lead time to prepare for those who need to do so, such as city officials with excessive heat event mitigation plans.

**Excessive Heat Warning/Advisories:** Issued when an extreme heat event is expected in 36 hours. These products are issued when an excessive heat event is imminent or has a high probability of occurring. The warning is used for conditions posing a threat to life or property. An advisory is for less severe conditions that cause significant discomfort or inconvenience and, if caution is not taken, could lead to a threat to life and/or property.

### **How Forecasters Decide Whether to Issue Excessive Heat Products**

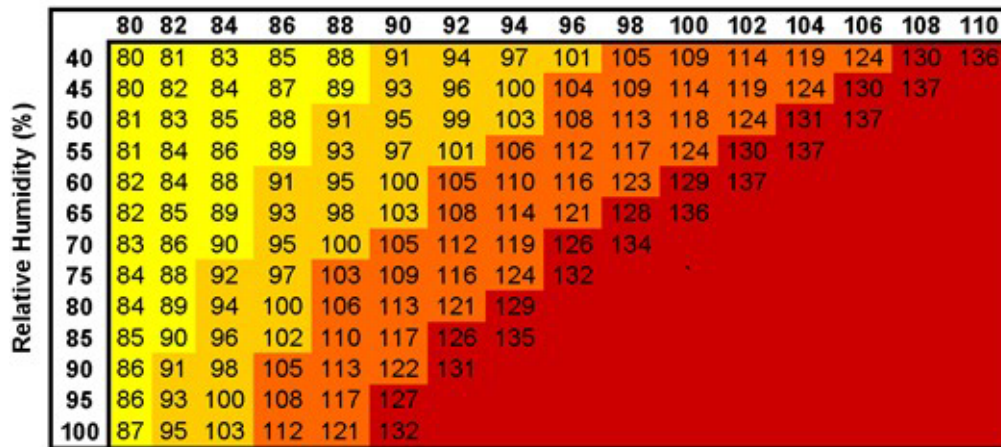
NOAA's heat alert procedures are based mainly on Heat Index Values. The Heat Index sometimes referred to as the apparent temperature, is given in degrees Fahrenheit. The Heat Index measures how hot it feels when relative humidity is factored with the air temperature.

The Heat Index chart below shows Heat Index Values for various temperatures and humidity levels. For example, suppose the air temperature is 96° F, and the relative humidity is 65%. In that case, the heat index—i.e., how hot it feels—is 121° F. Therefore, the Weather Service will initiate alert procedures when the Heat Index is expected to exceed 105°-110° F (depending on local climate) for at least two consecutive days.

## NOAA's National Weather Service

### Heat Index

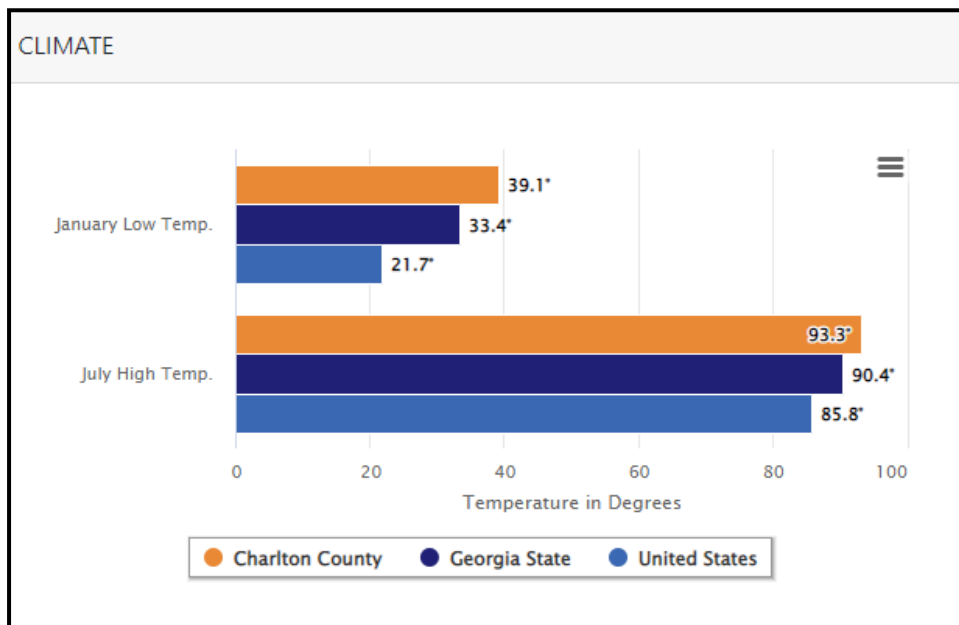
Temperature (°F)



Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution Extreme Caution Danger Extreme Danger

**IMPORTANT:** Since heat index values were devised for shady, light wind conditions, **exposure to full sunshine can increase values by up to 15° F.** Also, **strong winds** can be highly hazardous, particularly with scorching, dry air.



*bestplaces.net/climate/county/Georgia/Charlton*

### B. Profile of Extreme Heat Events, Frequency of Occurrences, Probability:

The historical record for Extreme Heat is spotty at best, with many unreported or underreported events. Charlton County and the Cities of Folkston and Homeland are equally vulnerable to



Extreme Heat, although more severe effects are likely to be seen in densely populated areas. Extreme Heat can occur during the warmer months of the year. Therefore, most Extreme Heat events can be predicted somewhat in advance.

The Heat Index concerning the number of Heat Disorders during extreme heat events is unknown. However, extreme heat events can significantly increase specific other listed hazards, including Wildfire and Drought.

Charlton County (including the Cities of Folkston and Homeland):

According to National Climatic Data Center (NCDC) information (see Appendix F), there are zero (0) reports of Extreme Heat events occurring in Charlton County (including the Cities of Folkston and Homeland) between 01/01/1950 and 12/31/2017. However, according to the Special Weather Warnings for Mid America Catastrophe Services (MDA), there were 28 reports of extreme heat between January 1, 2018, and August 15, 2022. The previous HMP update brings the total of extreme heat events to 67 since 1950.

The Historic Recurrence Interval is 0.31 years. This is a 325.00% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 3.2, the one-time 20-year frequency is 1.95, and the one-time 50-year frequency is 0.78 (see the Hazard Frequency Table in Appendix D).

**C/D. Inventory of Assets Exposed and Potential Losses to Extreme Heat:**

The threat of Extreme Heat in Charlton County and the Cities of Folkston and Homeland would primarily occur in the summer months, usually possible with some warning.

In Worksheet 3A: Inventory of Assets appearing in Appendix A, we estimate that all of Charlton County and the Cities of Folkston and the Homeland area are vulnerable to Extreme Heat.

Charlton County (including the Cities of Folkston and Homeland):

Unless otherwise explicitly noted, it has been determined that approximately 100% of the residential properties (3,687 of 3,687) in Charlton County (including the Residential properties in the individual cities) may be affected, which have a total fair market value of \$202,624,362. Also, 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education, and Utility properties (1,746 of 1,746) in Charlton County (which includes those property types in the individual cities) may be affected, which have a total market value of \$117,451,305.

While we have these values listed, we recognize that an Extreme Heat event would not usually fully impact these properties' value or be big enough to wipe out all assets.

Typically, the damage caused by Extreme Heat events consists of illness and injury to people (for example, heat stroke and sunstroke) rather than damage to buildings and infrastructure. However, Extreme Heat can increase the risk of Wildfires (see Chapter 2, Section III, and Chapter 4, Section III for more information).

**E. Land Use and Development Trends Related to Extreme Heat:**



Overall, population growth means more people could be impacted by Extreme Heat events, especially those without air conditioning. However, population growth has been slow enough that it is not expected to affect the community's overall vulnerability.

Current trends are for agricultural areas to be converted to residential areas. No other land use and development trends have been identified to increase or decrease the community's overall vulnerability to extreme heat.

#### **F. Multi-Jurisdictional Extreme Heat Differences:**

All Charlton County and the Cities of Folkston and Homeland may be equally affected by Extreme Heat. Therefore, no differences between the jurisdictions in this regard have been determined. However, some densely populated areas (mainly the City of Folkston but also, to a certain extent, the City of Homeland) may contain older buildings with unreliable air conditioning or no air conditioning. As a result, higher numbers of residents in such areas could be adversely affected by Extreme Heat.

#### **G. General Overall HRV Summary of Extreme Heat Events and Their Impact on the Community:**

Extreme heat can cause damage anywhere, anytime, throughout Charlton County and the Cities of Folkston and Homeland. However, the cost of the damage may be higher if an Extreme Heat event is accompanied by a power failure, preventing air conditioning systems from functioning.

The Charlton County HMPUC recognizes Extreme Heat as one of the most likely natural hazards to occur and cause damage. They have developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impact of Extreme Heat on Charlton County and the Cities of Folkston and Homeland. These are contained in Chapter 4, Section X.

## **Section XI Public Health Emergency**

### **A. Identification of Hazard**

A Public Health Emergency is an event that impacts the health of a significant portion of the population. Public Health Emergencies can occur at any time without warning. Examples of Public Health Emergencies arising from natural causes include disease outbreaks (including pandemics and food-borne illnesses) and poisoning from naturally occurring environmental factors. Public Health Emergencies may happen by themselves or may occur secondary to other natural hazards, for example, when flooding leads to contamination of drinking water supplies. Public Health Emergencies may also be man-made (for example, chemical spills, radiation incidents, and bioterrorism).

The [National Disaster Medical System](#) Federal Partners Memorandum of Agreement defines a Public Health Emergency as "an emergency need for health care [medical] services to respond to a disaster, a significant outbreak of infectious disease, bioterrorist attack or other significant or catastrophic events. For purposes of NDMS activation, a Public Health Emergency may include but is not limited to Public Health Emergencies declared by the [Secretary of HHS](#) [Health and

Human Services] under 42 U.S.C. 247d or a declaration of a major disaster or emergency under the [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#) (Stafford Act), 42 U.S.C. 5121-5206).

Source: “Public Health Emergency-United States”

[A Public Health Emergency from the Perspective of the U.S. National Disaster Medical System \(NDMS\)](#)". 2007-04-10.

[NATIONAL DISASTER MEDICAL SYSTEM MEMORANDUM OF AGREEMENT AMONG THE DEPARTMENTS OF HOMELAND SECURITY, HEALTH AND HUMAN SERVICES, VETERANS AFFAIRS, AND DEFENSE"](#) (PDF). 2005-09-26.

## **B. Profile of Public Health Emergency Events, Frequency of Occurrences, Probability:**

Many identified natural hazards in Charlton County, the City of Folkston, and the City of Homeland can lead to secondary Public Health Emergencies. These include but are not limited to:

- Large numbers of injuries requiring treatment after an extreme weather event
- Contamination of drinking water, food supplies, and/or living spaces due to flooding
- Health effects resulting from extreme heat/cold events
- Health effects resulting from people being displaced/homeless due to a natural hazard event
- Contamination of drinking water and/or soil resulting from industrial activity

Charlton County, the City of Folkston, and the City of Homeland are also vulnerable to Public Health Emergencies that may occur naturally on their own, including but not limited to:

- Infectious disease outbreaks
- Pandemic influenza
- Mosquito-borne illness
- Food-borne illness

Diseases that cause a Public Health Emergency may have a rapid or slow onset. They may be highly localized or may be widespread. Depending on the nature of the public health emergency, treatment may or may not be immediately available.

Some examples of recent Public Health Emergencies include:

### **Opioid Crisis**

Every day, more than 90 Americans die after overdosing on opioids.<sup>1</sup> The misuse of and addiction to opioids—including [prescription pain relievers](#), [heroin](#), and synthetic opioids such as [fentanyl](#)—is a severe national crisis that affects public health and social and economic welfare. The Centers for Disease Control and Prevention estimates that the total "economic burden" of prescription opioid misuse in the United States is \$78.5 billion annually, including healthcare, lost productivity, addiction treatment, and criminal justice involvement.<sup>2</sup>

In the late 1990s, pharmaceutical companies reassured the medical community that patients would not become addicted to prescription opioid pain relievers, and healthcare providers began to

prescribe them at greater rates. This subsequently led to widespread diversion and misuse of these medications before it became clear that they could be highly addictive.<sup>3,4</sup> Opioid overdose rates began to increase. In 2015, more than 33,000 Americans died from an opioid overdose, including prescription opioids, heroin, and illicitly manufactured fentanyl, a powerful synthetic opioid.<sup>1</sup> That same year, an estimated 2 million people in the United States suffered from substance use disorders related to prescription opioid pain relievers, and 591,000 suffered from a heroin use disorder (not mutually exclusive).<sup>5</sup> Here is what we know about the opioid crisis:

- Roughly 21 to 29 percent of patients prescribed opioids for chronic pain misuse them.<sup>6</sup>
- Between 8 and 12 percent develop an opioid use disorder.<sup>7-9</sup>
- An estimated 4 to 6 percent who misuse prescription opioids transition to heroin.<sup>7-9</sup>
- About 80 percent of people who use heroin first misused prescription opioids.<sup>7</sup>

This issue has become a public health crisis with devastating consequences, including increased opioid misuse and related overdoses and the rising incidence of neonatal abstinence syndrome due to opioid use and abuse during pregnancy. In addition, the increase in injection drug use has also contributed to the spread of infectious diseases, including HIV and hepatitis C. As seen throughout the history of medicine, science can be an essential part of the solution to resolving such a public health crisis.

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4. Van Zee A. The Promotion and Marketing of OxyContin: Commercial Triumph, Public Health Tragedy. *Am J Public Health*. 2009;99(2):221-227. doi:10.2105/AJPH.2007.131714.
5. Center for Behavioral Health Statistics and Quality (CBHSQ). *2015 National Survey on Drug Use and Health: Detailed Tables*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2016.
6. Vowles KE, McEntee ML, Julnes PS, Frohe T, Ney JP, van der Goes DN. Rates of opioid misuse, abuse, and addiction in chronic pain: a systematic review and data synthesis. *Pain*. 2015;156(4):569-576. doi:10.1097/01.j.pain.0000460357.01998.fl.
7. Muhuri PK, Gfroerer JC, Davies MC. Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States. *CBHSQ Data Rev*. August 2013.

8. Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. *JAMA Psychiatry*. 2014;71(7):821-826. doi:10.1001/jamapsychiatry.2014.366.
9. Carlson RG, Nahhas RW, Martins SS, Daniulaityte R. Predictors of transition to heroin use among initially non-opioid dependent illicit pharmaceutical opioid users: A natural history study. *Drug Alcohol Depend*. 2016;160:127-134. doi:10.1016/j.drugalcdep.2015.12.026.

## H1N1

2009 H1N1 was first detected in the United States in April 2009. This virus was a unique combination of influenza virus genes never previously identified in either animals or people. In addition, the virus genes were a combination of genes most closely related to North American swine-lineage H1N1 and Eurasian lineage swine-origin H1N1 influenza viruses. Because of this, initial reports referred to the virus as a swine-origin influenza virus. However, investigations of initial human cases did not identify exposures to pigs, and it quickly became apparent that this new virus was circulating among humans and not among U.S. pig herds.

[Infection with this new influenza A virus \(then referred to as 'swine-origin influenza A virus\) was first detected in a 10-year-old patient in California](#) on April 15, 2009, who was tested for influenza as part of a clinical study. Laboratory testing at CDC confirmed that this virus was new to humans. Two days later, CDC laboratory testing confirmed the second infection with this virus in another patient, an 8-year-old living in California, about 130 miles away from the first patient tested as part of an influenza surveillance project. There was no known connection between the two patients. The CDC's laboratory analysis determined that the viruses obtained from these two patients were very similar and different from any other influenza viruses previously seen in humans or animals. Testing showed that these two viruses were resistant to the antiviral drugs, amantadine and rimantadine, but susceptible to oseltamivir and zanamivir. CDC began an immediate investigation into the situation in coordination with California's state and local animal and human health officials.

The cases of 2009 H1N1 flu in California occurred in the context of sporadic reports of human infection with North American-lineage [swine influenza viruses](#) in the United States, most often associated with close contact with infected pigs. (From December 2005 – to January 2009, 12 cases of human infection with swine influenza were reported; five of these 12 cases occurred in patients who had direct exposure to pigs, six patients said being near pigs, and the source of infection in one case was unknown). Human-to-human spread of swine influenza viruses had been rarely documented and had not been known to result in widespread community outbreaks. In mid-April of 2009, however, detecting two patients infected with swine-origin flu viruses 130 miles apart raised concern that a novel swine-origin influenza virus had made its way into the human population and spread among people.

CDC worked closely with state and local animal and human health officials on epidemiological investigations by tracing contacts of both patients to determine the source of their infection and examining whether there was any link between the patients and pigs. Surveillance was also

enhanced to detect more cases of human illness with this virus. Based on the geographic location of the first cases, lack of contact between these cases and swine, and data collected through contact tracing and laboratory testing, CDC epidemiologists suspected that human-to-human transmission of this virus had taken place. In an article entitled [Swine Influenza A \(H1N1\) Infection in Two Children --- Southern California, March-April 2009](#), published on April 21, 2009, in the [Morbidity and Mortality Weekly Report \(MMWR\)](#), CDC described the cases and requested that state public health laboratories send to CDC all influenza A specimens that could not be subtyped. That same day CDC responded to media inquiries related to the MMWR from medical reporters. Within a day, three additional samples of this new virus were identified in San Diego County and Imperial County California hospitals and sent to CDC for further testing. CDC laboratory testing confirmed that these samples also were positive for the virus that would come to be called “2009 H1N1.”

On April 23, 2009, samples submitted by Texas revealed two additional cases of human infections with 2009 H1N1, transforming the investigation into a multistate outbreak and response. At the same time, CDC was testing 14 samples from Mexico, some of which had been collected from patients who were ill before the first 2 U.S. (California) patients. Seven samples' results were positive for 2009 H1N1, and similar findings were reported for specimens submitted by Mexico to Canada. Thus, it became clear that cases were occurring in multiple countries, and the human-to-human spread of the virus appeared to be ongoing. That same day CDC held the first formal full press briefing to inform the media and guide the public and health care response to the rapidly evolving situation. CDC held nearly 60 press briefings during the 2009 H1N1 response.

On April 24, 2009, CDC uploaded complete gene sequences of the 2009 H1N1 virus to a publicly accessible international influenza database, which enabled scientists around the world to use the sequences for public health research and comparison against influenza viruses collected elsewhere, and an updated report on the outbreak was published online in the MMWR.

On Saturday, April 25, 2009, under the rules of the International Health Regulations, [the Director-General of WHO declared the 2009 H1N1 outbreak a Public Health Emergency of International Concern](#) and recommended that countries intensify surveillance for unusual outbreaks of influenza-like illness and severe pneumonia. Also, on April 25, 2009, New York City officials reported an investigation into a cluster of influenza-like diseases in a high school. In addition, CDC testing confirmed two cases of 2009 H1N1 influenza infection in Kansas and another in Ohio shortly after.

On April 26, 2009, the United States Government determined that a public health emergency existed nationwide; CDC's Strategic National Stockpile (SNS) began releasing 25% of the supplies in the stockpile that could be used to protect and treat influenza. This included 11 million antiviral drugs and personal protective equipment regimens, including over 39 million respiratory protection devices (masks and respirators), gowns, gloves, and face shields, to states (allocations were based on each state's population).

[On April 27, the WHO Director-General raised the level of influenza pandemic alert from phase 3 to phase 4](#), based primarily on epidemiological data demonstrating human-to-human transmission and the ability of the virus to cause community-level outbreaks. In addition, based on reports of widespread influenza-like illness and many severe illnesses and deaths in Mexico, CDC issued a travel health warning recommending that United States travelers postpone all non-

essential travel to Mexico. Finally, as in past influenza seasons, CDC urged the public and especially those people at the highest risk of influenza-related complications, to protect themselves by taking antiviral drugs early in their illness when recommended by their doctor; CDC also advised that everyone take every day preventive actions like covering coughs and sneezes and staying home from work and school when ill to help reduce the spread of illness.

[On April 29, 2009, WHO raised the influenza pandemic alert from phase 4 to phase 5](#) signaling that a pandemic was imminent, and requested that all countries immediately activate their pandemic preparedness plans and be on high alert for unusual outbreaks of influenza-like illness and severe pneumonia. The U.S. Government was already implementing its pandemic response plan. CDC continued to post and update [guidance](#) for states, clinicians, laboratories, schools, partners, and the [public](#) on topics ranging from the non-pharmaceutical measures communities could take to limit the spread of disease, to how to evaluate a patient for possible infection with 2009 H1N1 influenza, to how to care for children who might be sick with 2009 H1N1 influenza. On April 30, 2009, CDC issued an [MMWR Dispatch describing the initial outbreak of 2009 H1N1 influenza in Mexico](#). Findings in Mexico indicated that transmission in Mexico involved person-to-person spread with multiple generations of transmission. CDC also issued an [MMWR Dispatch on the outbreak of 2009 H1N1 influenza infection in a high school in New York City, which was, at the time, the largest reported cluster of 2009 H1N1 cases in the United States](#). The Dispatch suggested that the high school-age students had respiratory and fever symptoms similar to those caused by the seasonal flu. In addition, about half had diarrhea, which is more than expected with seasonal flu. As the details of the outbreak unfolded, the Federal response continued in high gear. Also, on April 30, 2009, [HHS announced that the Federal government would purchase an additional 13 million treatment courses of antiviral drugs to help fight influenza](#). The other treatment courses would be added to the SNS.

As the outbreak spread, CDC began receiving reports of school closures and implementing community-level social distancing measures to slow the disease's spread. School administrators and public health officials followed their pandemic plans and did everything they could to slow the spread of the illness. (Social distancing measures are meant to increase the distance between people. Measures include staying home when ill unless seeking medical care, avoiding large gatherings, telecommuting, and implementing school closures).

Since the 2018 HMP was adopted, the 2018-2019 influenza season was a moderate severity season with two waves of influenza A activity of similar magnitude during the season: A (H1N1)pdm09 predominated from October 2018 to mid-February 2019, and A (H3N2) activity increased from mid-February through mid-May.

Flu activity in the United States during the 2019–2020 season began to increase in November and was consistently high through January and February. The season was characterized by two consecutive waves of activity, beginning with influenza B viruses and followed by A (H1N1)pdm09 viruses.

More than 19 million flu cases have been diagnosed in the United States in the 2020-2021 season.



After a dip in the first few weeks of 2020, flu activity again picked up, with no signs that the season peaked. The widespread was reported in every state; except Hawaii.

The CDC estimated that the flu has led to 180,000 hospitalizations this season. Sixty-eight children had died.

Flu season had an odd start, with an unprecedented early surge in a B strain of the virus. Flu B generally hits younger people harder. But increasingly, cases of the flu A strain — H1N1 — have been diagnosed.

## **ENTEROVIRUS D68**

In 2014, the United States experienced a nationwide outbreak of EV-D68 associated with severe respiratory illness. From mid-August 2014 to January 15, 2015, CDC or state public health laboratories confirmed 1,153 people in 49 states and the District of Columbia with respiratory illnesses caused by EV-D68. Almost all of the confirmed cases were among children, many of whom had asthma or a history of wheezing. Additionally, there were likely millions of mild EV-D68 infections for which people did not seek medical treatment and/or get tested.

CDC received 2,600 specimens for enterovirus lab testing during 2014, substantially more than usual. About 36% of those tested positive for EV-D68. About 33% tested positive for an enterovirus or rhinovirus other than EV-D68. EV-D68 was detected in specimens from 14 patients who died and had samples submitted for testing. State and local officials have the authority to determine and release information about the cause of these deaths.

Enteroviruses are ever-present in the community. A mix of enteroviruses circulates annually, and different types of enteroviruses can be expected in other years. However, outbreaks of EV-D68 were detected from August through November in 2014, 2016, and 2018. Each year cases are expected to be seen, but the number of cases identified in the U.S. varies yearly. As in previous years, CDC will continue to work with states to test specimens for enteroviruses to determine virus type, support the identification and investigation of outbreaks, and monitor seasonal activity.

Infants, children, and teenagers are most likely to get infected with enteroviruses and become ill. They do not yet have immunity (protection) from previous exposures to these viruses. We believe this is also true for EV-D68. Adults can get infected with enteroviruses, but they are more likely to have mild or no symptoms.

Children with asthma may have a higher risk of severe respiratory illness caused by EV-D68 infection.

## **MERS**

Middle East Respiratory Syndrome (MERS) is an illness caused by a virus (more specifically, a [coronavirus](http://www.cdc.gov/coronavirus/index.html) (<http://www.cdc.gov/coronavirus/index.html>)) called the Middle East Respiratory Syndrome Coronavirus (MERS-CoV). MERS affects the respiratory system (lungs and breathing



tubes). Most MERS patients develop a severe acute respiratory illness with fever, cough, and shortness of breath. About 3-4 out of every ten patients reported with MERS have died.

Health officials first reported the disease in Saudi Arabia in September 2012. Through retrospective investigations, health officials later identified that the first known cases of MERS occurred in Jordan in April 2012. So far, all subjects of MERS have been linked through travel to or residence in countries in and near the Arabian Peninsula. The largest known outbreak of MERS outside the Arabian Peninsula occurred in the Republic of Korea in 2015. The outbreak was associated with a traveler returning from the Arabian Peninsula.

MERS represents a very low risk to the general population in the United States. Only two patients in the U.S. have ever tested positive for MERS-CoV infection, both in May 2014, while more than 1,300 have tested negative. The CDC continues to monitor MERS closely.

MERS-CoV has spread from ill people to others through close contact, such as caring for or living with an infected person. MERS can affect anyone. MERS patients ranged in age from younger than 1 to 99 years old.

CDC monitors the MERS situation globally closely and works with partners to better understand the risks of this virus, including the source, how it spreads, and how infections might be prevented. CDC recognizes the potential for MERS-CoV to spread further and cause more cases globally. We have provided information for travelers and are working with health departments, hospitals, and other partners to prepare for this. For example, in May 2014, CDC confirmed two unlinked imported cases of MERS in the United States – one to [Indiana](#), the other to [Florida](#). Both cases were among healthcare providers who lived and worked in Saudi Arabia. Both traveled to the U.S. from Saudi Arabia, where they are believed to have been infected. Both were hospitalized in the U.S. and later discharged after fully recovering.

CDC and other public health partners continue to monitor the MERS situation closely. The CDC recognizes the potential for MERS-CoV to spread further and cause more cases in the United States and globally. In preparation for this, The CDC has done the following:

- Continued to collaborate with international partners on epidemiologic and laboratory studies to understand MERS better
- Improved the way they collect data about MERS cases
- Increased lab testing capacity in states to detect cases
- Developed guidance and tools for health departments to conduct public health investigations when MERS cases are suspected or confirmed
- Provided recommendations for healthcare infection control and other measures to prevent disease spread
- Provided guidance for flight crews, Emergency Medical Service (EMS) units at airports, and U.S. Customs and Border Protection (CPB) officers about reporting ill travelers to CDC
- Disseminated up-to-date information to the general public, international travelers, and public health partners

- Used Advanced Molecular Detection (AMD) methods to sequence the complete virus genome on specimens from the two U.S. MERS cases to help evaluate and further describe the characteristics of MERS-CoV.

## **EBOLA VIRUS DISEASE**

Ebola, previously known as Ebola hemorrhagic fever, is a rare and deadly disease caused by infection with one Ebola virus species. Ebola can cause disease in humans and nonhuman primates (monkeys, gorillas, and chimpanzees).

Ebola viruses are found in several African countries. Ebola was first discovered in 1976 near the Ebola River in the Democratic Republic of the Congo. Since then, outbreaks have appeared sporadically in Africa.

The natural reservoir host of the Ebola virus remains unknown. However, based on evidence and the nature of similar viruses, researchers believe that the virus is animal-borne and that bats are the most likely reservoir. In addition, four of the five virus strains occur in an animal host native to Africa.

People get Ebola through direct contact (through broken skin or mucous membranes in, for example, the eyes, nose, or mouth) with:

- Blood or body fluids (including but not limited to urine, saliva, sweat, feces, vomit, breast milk, and semen) of a person who is sick with or has died from Ebola;
- Objects (like needles and syringes) that have been contaminated with body fluids from a person who is sick with Ebola or the body of a person who has died from Ebola,
- Infected fruit bats or primates (apes and monkeys), and
- Possibly from contact with semen from a man who has recovered from Ebola (for example, by having oral, vaginal, or anal sex)

Ebola Virus Disease has no cure or vaccine. However, due to the high mortality rate and highly infectious nature of the virus, planning efforts in the United States have been focused on controlling exposure for potentially exposed travelers from the countries where the outbreaks have been rampant. In addition, because the timeframe between a person contracting the disease and exhibiting symptoms can be up to 21 days, combined with the ease of international travel, prevention and planning have become a focal point in public health preparedness.

Four laboratory-confirmed cases (commonly known as "Ebola") occurred in the United States in 2014. Eleven patients were reported, including these four cases, and seven were medically evacuated from other countries. The first was reported in September 2014. People contracted the disease outside the US and traveled into the country as regular airline passengers or medical evacuees; two died of those nine. Two people contracted Ebola in the United States. Both were nurses who treated an Ebola patient; both recovered.

On September 30, 2014, the Centers for Disease Control and Prevention (CDC) announced that Thomas Eric Duncan, a reportedly 42-year-old (later corrected by CDC reports as a 45-year-old Liberian national visiting the United States from Liberia, had been diagnosed

with Ebola in Dallas, Texas. Duncan, who had been visiting family in Dallas, was treated at Texas Health Presbyterian Hospital Dallas. By October 4, Duncan's condition had deteriorated from "serious but stable" to "critical." On October 8, Duncan died of Ebola. The other three cases diagnosed in the United States as of October 2014 were two nurses who treated Eric Duncan and a doctor who had returned from Guinea. All three were treated and survived. A year later, Ebola case numbers dropped, and countries were declared Ebola-free.

## **ZIKA**

Zika virus disease (Zika) is caused by the Zika virus that spreads to people primarily through the bite of an infected *Aedes* species mosquito. The most common symptoms of Zika are fever, rash, joint pain, and conjunctivitis (red eyes). The illness is usually mild, with symptoms lasting several days to a week after being bitten by an infected mosquito. People typically don't get sick enough to go to the hospital and rarely die of Zika. For this reason, many people might not realize they have been infected. Once a person has been infected, they are likely to be protected from future infections.

Zika virus can be spread from a pregnant woman to her fetus and has been linked to a severe congenital disability of the brain called [microcephaly](#) in babies of mothers who had Zika virus while pregnant. CDC recommends special precautions for pregnant women. Pregnant women should consider delaying travel to [areas with Zika](#).

Zika virus was first discovered in 1947 and is named after the Zika forest in Uganda. In 1952, the first human cases of Zika were detected, and since then, outbreaks of Zika have been reported in tropical Africa, Southeast Asia, and the Pacific Islands. Thus, Zika outbreaks have probably occurred in many locations. Before 2007, at least 14 cases of Zika had been documented, although other cases were likely to have happened and were not reported. Because the symptoms of Zika are similar to those of many other diseases, many cases may not have been recognized.

- In May 2015, the Pan American Health Organization (PAHO) alerted Brazil's first confirmed Zika virus infection. On Feb 1, 2016, the World Health Organization (WHO) declared the Zika virus a public health emergency of international concern (PHEIC). Local transmission has been reported in many other countries and territories. The Zika virus likely will continue to spread to new areas. As an arboviral disease, the Zika virus is nationally notifiable.

There is currently no transmission of the ZIKA virus in the United States. The last cases transmitted by mosquitoes were in Florida in 2016-2017.

### Zika virus disease cases\* reported to ArboNET — United States, 2015–2020

Year	US States Locally acquired**	US States Travel-associated†	US Territories Locally acquired	US Territories Travel-associated
2015	0	62	9	1
2016	224	4,944	36,367	145
2017	7	445	665	1
2018	0	74	147	1
2019	0	28	73	1
2020	0	4	57††	0

\*Includes confirmed and probable disease cases

\*\*Locally acquired cases reported from Florida and Texas in 2016 and 2017

†Includes cases acquired through other routes (e.g., sexual and laboratory transmission)

††In 2020, all locally acquired cases of Zika in the U.S. territories were diagnosed by antibody testing. Since antibodies against Zika virus can persist for years after infection, serology cannot distinguish between a recent or past infection. Additionally, Zika and dengue virus antibodies cross-react, making it difficult to diagnose which virus is the cause of the current illness.

Due to Charlton County's, the City of Folkston's, and the City of Homeland's humid subtropical climate, mosquito-borne illness is a more significant hazard here than in many other parts of the country. Levels of exposure to mosquito-borne illness depend on several factors, including:

- Presence and prevalence of an illness-causing mosquito-borne virus;
- Presence of mosquitoes, which may be exacerbated both by natural standing water (such as lakes and ponds) and by standing water in man-made structures, such as old tires, buckets, and other containers;
- Human exposure to mosquito bites may be influenced by insect repellent, the amount of time spent outside, and the availability of air conditioning and window screens in residences.

The Cities of Folkston & Homeland do not operate a mosquito control program. However, Charlton County has a mosquito control program that includes spraying, surveillance, and public education. The mosquito-borne illness is a significant concern as of early 2016 due to a Zika virus outbreak based in South and Central America that included many cases just over the county boundary in Florida.

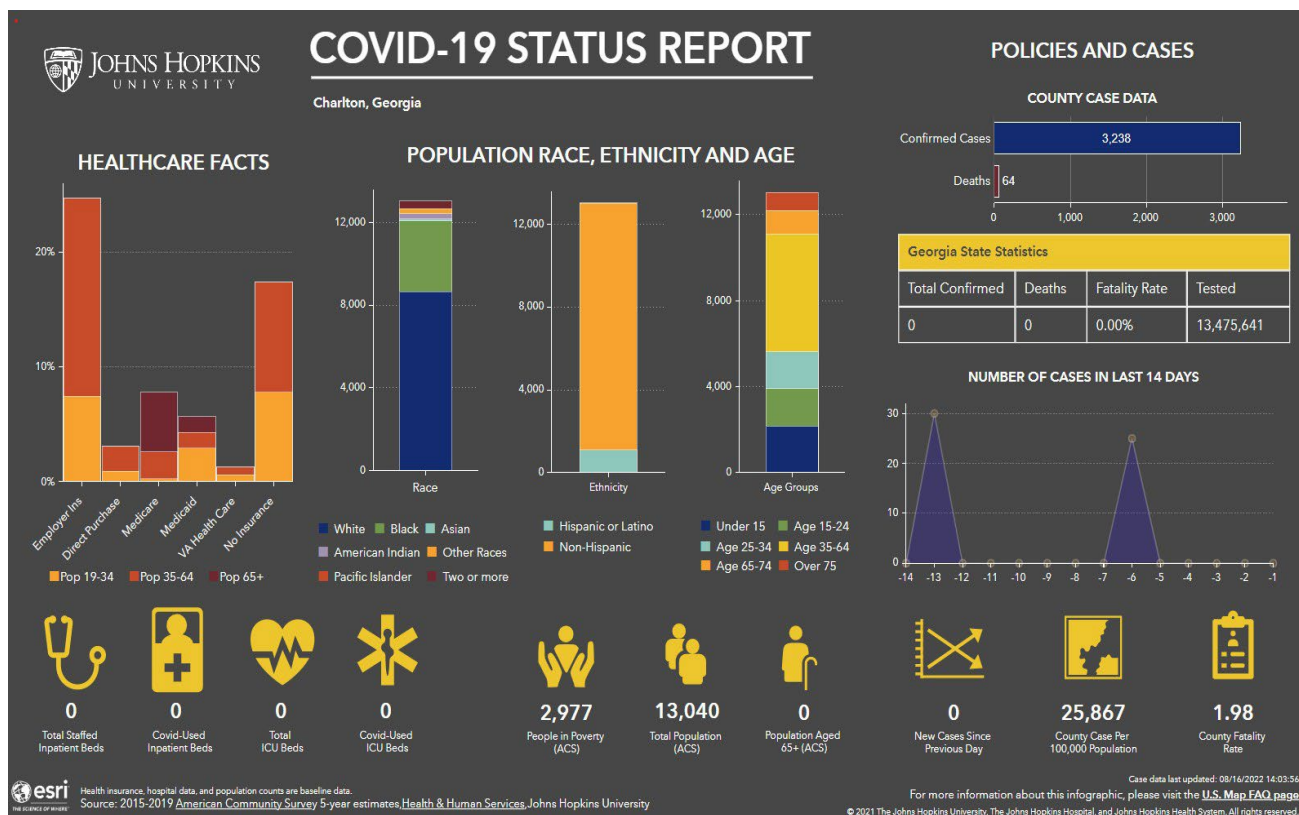
#### Charlton County (including the Cities of Folkston and Homeland):

According to National Climatic Data Center (NCDC) information (see Appendix F), there are zero (0) reports of Public Health Emergency events occurring in Charlton County (including the Cities of Folkston and Homeland) between 01/01/1950 and 12/31/2016.

Charlton County (including the Cities of Folkston and Homeland) has estimated 14 public health emergency events in 195 years with the best available information. The Historic Recurrence Interval is 13.93 years. The Historic Frequency Chance is 7.18% per year. The past 10-year Record Frequency Per Year is 0.5, the one-time 20-year frequency is 0.25, and the one-time 50-year frequency is 0.1.

## COVID-19

COVID-19 is an infectious disease caused by the novel coronavirus. This disease and virus were unknown to the country before the outbreak began in Wuhan, China, in December 2019. However, in 2020, about 1.8% of the population died from COVID-19. There are several potential strains of COVID-19, with the Delta variant arriving in the United States in 2021 and the Omicron variant coming in December 2021, with several variants. Variants of concern now are Omicron - B.1.1.529, BA.1, BA.1.1, BA.2, BA.3, BA.4, and BA.5. The three most common lineages of Omicron currently are BA.2, BA.4, and BA.5. On August 15, 2022, there were 3,271 confirmed cases and 64 confirmed deaths in Charlton County. Covid-19 still poses more of a threat than any other illness in Charlton County, Folkston, and Homeland.



The county was vulnerable to COVID-19, which spread from person to person. Facilities that serve large volumes of people were vehicles for transmitting this infectious disease, as in an influenza pandemic; such areas include schools, colleges, large employment centers, churches, and large retail locations such as malls.

COVID-19 spreads from ill people to others through close contact, such as caring for or living with an infected person. Asymptomatic people also carry this virus. Signs and symptoms of the coronavirus disease (COVID-19) may appear two to 14 days after exposure. This time after exposure and before having symptoms is called the incubation period.

CDC and other public health partners continue to monitor the COVID-19 situation closely. The CDC recognizes the potential for COVID variants to spread further and cause more cases in the United States and globally. In preparation for this, The CDC has done the following:

- Continued to collaborate with international partners on epidemiologic and laboratory studies to understand COVID-19 better
- Improved the way they collect data about COVID-19 cases
- Increased lab testing capacity in states to detect cases
- Developed guidance and tools for health departments to conduct public health investigations when COVID-19 cases are suspected or confirmed
- Hospitals, healthcare providers, and laboratories transfer data for case reporting to the state, local, and territorial public health departments as required under state disease reporting laws
- CDC reports national COVID-19 case surveillance data to the World Health Organization, as required under [International Health Regulations](#). CDC also publishes COVID-19 federal case surveillance data for public use at [data.cdc.gov](https://data.cdc.gov).
- State, local, and territorial health departments move data for case notification to CDC through NNDSS. This step is voluntary, and all data is de-identified before transmission to CDC.
- CDC uses two data sources to obtain information on COVID-19 cases. The first is **aggregate count data**, which offers high-level information about each case and death totals. Data is gathered through a robust process with the following steps:
  - A CDC data team double-checks the information obtained from jurisdictions' websites via an automated overnight web review process
  - CDC additionally compares the data with information submitted by jurisdictions through a separate process
  - CDC reconciles any differences and posts the finalized information in the OVID Data Tracker

CDC receives line-level data primarily from state health departments. Information is de-identified and does not include names or home addresses. In addition, CDC makes line-level data available through [patient-level data sets](#). The COVID Data Tracker also features some of this information.

Line-level data includes:

- Patient demographics such as age, race, and ethnicity
- Signs and symptoms of illness
- Underlying health conditions
- Characteristics of hospitalizations, such as ventilator use
- Clinical outcomes
- Exposures



- Provided recommendations for healthcare infection control and other measures to prevent disease spread
- Provided guidance for flight crews, Emergency Medical Service (EMS) units at airports, and U.S. Customs and Border Protection (CPB) officers about reporting ill travelers to CDC
- Disseminated up-to-date information to the general public, international travelers, and public health partners

*(Data Sources: American Community Survey 5-year estimates, Health & Human Services, John Hopkins University, and the CDC)*

#### **C.D. Inventory of Assets Exposed and Potential Losses to Public Health Emergency:**

The county with the highest population density areas would likely be most vulnerable to diseases that spread from person to person. For example, the cities of Folkston and Homeland are the central location of high population density in Charlton County. In addition, facilities that serve large volumes of people could be vehicles for transmitting infectious diseases, as in an influenza pandemic; schools, colleges, large employment centers, and large retail locations such as malls.

COVID-19 and its variants still pose more risks of illnesses than any other health issues in Charlton County and its cities. Public Health Emergencies involving food-borne illness are typically relatively localized because the disease affects those with an emergency. On the other hand, a Public transmitted disease through water can affect the entire population of a city in cases where that city's water supply is concerned. In rural areas where drinking water is obtained from wells, the effects of such an emergency may be more localized.

Damage from Public Health Emergencies is equally likely to occur in any area of the county, so all assets are exposed equally to potential Public Health Emergency damage to some degree. The potential loss from a Public Health Emergency depends entirely on the scope and severity of the emergency and the capacity of emergency management agencies and health care facilities to respond. Public Health Emergencies may be small and highly localized or affect an entire community and result in many fatalities. Due to the wide variety of possible Public Health Emergencies, it is impossible to make a precise generalized estimate of the potential loss.

#### **E. Land Use and Development Trends Related to Public Health Emergency:**

The 100-year floodplain protects the St. Marys River and the Satilla River. No septic systems are allowed within 100 feet of the river. However, there is a great danger of fecal coliform contamination of river waters due to flooding of both old and hardship septic tank systems located along the rivers and tributaries. Therefore, water recharge areas are currently protected by ordinance.

Wetland areas are protected by ordinance. In addition, soil and Sedimentation Control Ordinances are in effect.



Charlton County has enacted a subdivision ordinance. All areas are in the process of being zoned agricultural throughout Charlton County, if not zoned already. There is at least a 4-5-mile area already zoned around the City of Folkston and the City of Homeland, with the majority being either agricultural or some form of residential. There is more residential zoning in the City of Folkston and the City of Homeland than anything else. In addition, most highways are zoned for setbacks. Current trends are for agricultural areas to be converted to residential areas.

Many land use and development regulations protect Charlton County's public health, such as animal control ordinances, plumbing codes, solid waste management regulations, environmental regulations, and zoning regulations that minimize incompatible land use. All such laws contribute to reducing the likelihood of a Public Health Emergency.

#### **F. Multi-Jurisdictional Public Health Emergency Differences:**

Jurisdictional differences in vulnerability to Public Health Emergencies depend on the nature and severity of the emergency and the mitigation measures in place. For example, communities not covered by any active mosquito control program may be more vulnerable to outbreaks of mosquito-borne illness. The Cities of Folkston and Homeland are generally more susceptible to public health emergencies exacerbated by higher population density.

#### **G. General Overall HRV Summary of Public Health Emergency Events and Their Impact on the Community:**

The entire population of Charlton County and the Cities of Folkston and Homeland are conceivably at risk from a Public Health Emergency. In past public health emergencies, railroad cars containing mail, etc., were fumigated with Sulphur and other chemicals in Charlton County after they exited Florida. The level of risk depends on the emergency type and severity and the measures in place to control and respond to it. Some types of Public Health Emergencies are impossible to predict and occur swiftly, leaving little or no time to respond. Others are more gradual in their onset, and mitigation measures can be implemented ahead of time.

## **Chapter #3:** **Local Natural Hazard Mitigation Goals and Objectives**

### Summary of Changes:

Table 4.1 provides a brief description of each section in this chapter and a summary of the changes made in Chapter 3.

<b>Chapter 4 Section</b>	<b>Updates to Section</b>
I. Hurricane/Tropical Storm	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
II. Flood/SLOSH	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
III. Wildfire	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable) ■ Added new Objectives
IV. Tornado	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
V. Thunderstorm/Wind	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
VI. Severe Winter Storm	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
VII. Hail	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
VIII. Drought	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
IX. Lightning	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
X. Extreme Heat	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)
XI. Public Health Emergency	■ Updated Goals, Objectives & Action Step Formatting, Numbering & Data Fields, Updated or Deleted Prior Action Steps, and Added New Action Steps (if applicable)

## **Overall Community Mitigation Goals, Policies, and Values Narrative**

While Charlton County, Folkston, and the City of Homeland operate autonomously, a high level of cooperation is exhibited in hazard mitigation and emergency planning efforts. Each local government has designated representatives to participate in the emergency management process, whether it be during planning, response, or recovery phases. In addition, the local Emergency Management Agency hosts regular meetings to gather all of the relevant local, regional, and state partners together to develop effective plans and strengthen relationships among all stakeholders. Working together, Charlton County, the City of Folkston, and the City of Homeland have been able to access resources available through several state and federal sources that have been instrumental in improving the technical capabilities of these communities to more effectively mitigate hazards and provide more accurate warning and preliminary information to their citizens.

The hazards and risks associated with each local community have changed with the addition of SLOSH to the Flood hazard and the dangers of Lightning, Extreme Heat, and Public Health emergencies. However, many of the action steps identified during previous versions of this plan are still relevant and remain a priority in this plan.

The Charlton County Commission gave authority for the development of this Plan as a result of their execution of the Grantee-Subgrantee Agreement for the Charlton County Hazard Mitigation Grant Program (HMGP) Planning Project; and by the Cities of Folkston and Homeland, located in Charlton County, through their participation in the planning project. Therefore, the Charlton County Emergency Management Agency is authorized to oversee emergency management within Charlton County and the Cities of Folkston and Homeland.

The three jurisdictions have many current policies and programs related to hazard mitigation, described in detail in the Goals, Objectives, and Action Steps contained in Sections I through XI of Chapter 3 of this Plan. The three jurisdictions share the same policies, programs, and resources across the board concerning hazard mitigation planning and resources across the board, due to the high coordination, cooperation, and resource sharing. All jurisdictions (within the boundaries of their budgets) can expand and improve their existing policies and programs, as evidenced by the new and existing Goals, Objectives, and Action Steps included in this plan. The number of resources available to the three jurisdictions for expanding and improving existing programs will depend on local government budgets and state and federal funding to support hazard mitigation activities.

Charlton County and the Cities of Folkston and Homeland participate in comprehensive planning, with a joint Comprehensive Plan updated every five years (the last update was adopted in 2020). The Comprehensive Plan guides growth and development and includes a Land Use element with “Character Area” maps designating the type of development and restrictions on development intended for various parts of the community. By informing zoning and development decisions, the Comprehensive Plan guides growth to areas where the population will be less vulnerable to many of the hazards covered in this Hazard Mitigation Plan, for example, wildfires, which disproportionately affect residents of the Wildland-Urban Interface area. The Comprehensive Plan is a multi-jurisdictional plan that applies to the County and cities.

The Hazard Mitigation Plan is integrated into current policies and programs in multiple ways. First, it is used as guidance by the County Emergency Management Agency when making decisions about capital improvements. Second, the Hazard Mitigation Plan and the Comprehensive Plan are coordinated; when one of these documents is updated, the other document is consulted to maintain consistency. Finally, the Comprehensive Plan contains community policies to guide actions by local governments, and some of these policies are informed by the Hazard Mitigation Plan, as appropriate.

Although the County and Cities have limited staffing, the Southern Georgia Regional Commission is an excellent resource, assisting local governments through various services and highly experienced staff. In addition, the SGRC helps the community with many of the functions involved in implementing this Plan, such as grant applications and other technical assistance.

Below is a description of the comprehensive range of Mitigation Goals, Objectives, and Action Steps that the Charlton County HMPUC developed to reduce damage and improve safety through Hazard Mitigation. The natural hazards have arranged in Chapter Two Sections I-XI and the hazard in Chapter 3 Section I. In this Chapter, in Sections I-XI, there is an analysis and description of a comprehensive range of specific Mitigation Goals, Objectives and Action Steps, and projects being considered to reduce the effects of each natural hazard. There is particular emphasis on future and existing buildings and infrastructure.

The Charlton County HMPUC discussed and identified the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Chapter 4 of this Plan after identifying the hazards noted in Chapter 2, Sections I-XI. All of Charlton County, the City of Folkston, and the City of Homeland were considered in developing the comprehensive range of Mitigation Goals, Objectives, and Action Steps. These have been identified over time after weighing many factors discovered during the planning process, including risk assessment, storm history, past damage, community resources, and other factors.

A list of a comprehensive range of Mitigation Goals, Objectives, and Action Steps was compiled from the input of the Charlton County HMPUC and others within the community. Members of the Charlton County HMPUC prioritized the identified comprehensive range of Mitigation Goals, Objectives, and Action Steps based on what would be most beneficial to the community. The benefits were more significant than the costs involved (if any).

Several criteria were established to assist the Charlton County HMPUC members prioritize these suggested comprehensive ranges of Mitigation Goals, Objectives, and Action Steps. Criteria included perceived cost-benefit or effectiveness, availability of potential funding sources, overall feasibility, measurable milestones, multiple objectives, public and political support for the proposed actions, and the STAPLEE criteria.

Several projects emerged as a greater priority than others through this prioritization process. Some of the tasks involved spending considerable funds to initiate the required actions. For example, the determination of a project's cost-benefit analysis (such as the FEMA B/CA model) will be implemented at the time of project application or funding request. Other projects allowed the

communities to pursue project completion using potential grant funding. Still, others required no significant financial commitment from the communities.

There were no changes in the overall priorities since the previous plans were completed.

Chapter 4 describes the planning process involved in selecting the comprehensive range of Mitigation Goals, Objectives, and Action Steps. The Charlton County HMPUC gives the Action Steps a rating of High, Medium, or Low Priority based on several factors (with a primary emphasis on prioritized cost versus benefit review) identified in Chapter 3.

The chapter lists relevant, comprehensive ranges of Mitigation Goals, Objectives, and Action Steps below. Charlton County EMA Director has been chosen by Charlton County, Folkston, and the City of Homeland to oversee the projects. The Charlton County EMA has been designated by Charlton County, the City of Folkston, and the City of Homeland as the coordinating agency for implementing and administering these projects.

## **Section I**

### **Hurricanes/Tropical Storms**

#### **A. Community Mitigation Goals:**

As previously indicated in Chapter 2 Section I, Hurricanes/Tropical Storms may cause substantial damage to life and property in Charlton County, the City of Folkston, and the City of Homeland. However, they are usually accompanied by advanced notice, giving time to prepare. The Charlton County HMPUC believes that, because these Hurricanes/Tropical Storms have the potential to be highly violent and cause significant damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the threat of Hurricane/Tropical Storm damage in Charlton County, the City of Folkston and the City of Homeland.

#### **B. Identification and Analysis of Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Hurricanes/Tropical Storms in the community.

##### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

##### **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

### **3. Community Values, Historical and Special Considerations:**

Charlton County, the City of Folkston, and the City of Homeland have historic buildings, a few of which are Critical Facilities. Historical and particular considerations pose significant challenges regarding the potential Hazard Mitigation Hurricane/Tropical Storm Planning Activities involving historic buildings. The Charlton County Courthouse and others are Critical Facilities already on or should be considered potentially eligible for the National Register of Historic Places. The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

### **4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

### **5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of this hazard.

## **C. Hurricane/Tropical Storm-Mitigation Strategy and Recommendation**

**Goal #1: Prevent or reduce damage caused by Hurricanes/Tropical Storms in Charlton County, Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, and the public, due to Hurricanes/Tropical Storms.**

**Action Step #1 (formerly #3):** *Work with GDOT to improve unsafe roads in Charlton County and the Cities of Folkston and Homeland that are or could be evacuation routes.*

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Road Departments
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GA DCA CDBG/GDOT/FHWA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Action Step #2 (formerly #4):** *Construct a storage building to store emergency materials needed for shelters, relocate materials from other areas, and secure additional cots and materials, medications, and dehydrated foods for shelters.*

<b>Responsible Department</b>	Charlton County EMA
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<b>Anticipated Cost</b>	\$500,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA/Homeland Security/Red Cross
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #3 (formerly #5): Cut made-to-fit plywood window covers and install construction materials necessary for use during Hurricanes/Tropical Storms at Critical Facilities in Charlton County and the Cities of Folkston and Homeland.</b></i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	\$100,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #4 (formerly #7): Work with GDOT to improve highways in Charlton County and in the Cities of Folkston and Homeland that already are, or could be, evacuation routes.</b></i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Road Departments
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GDOT/FHWA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #5 (formerly #8): Order 2 new ambulances, an assisted lift mechanism, cardiac monitors, additional Supplies, and Equipment for Charlton County EMS.</b></i>	
<b>Responsible Department</b>	Charlton County EMS
<b>Anticipated Cost</b>	\$400,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, FEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High



Status	Ongoing
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**Objective #2: Advise the public of health & safety precautions and procedures necessary during Hurricanes/Tropical Storms and other events and on hazard mitigation, in general, in Charlton County, the City of Folkston, and the City of Homeland.**

***Action Step #1: Acquire and distribute literature from state agencies regarding disaster health & safety issues in Charlton County and the Cities of Folkston and Homeland.***

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #2: Order additional road signage for emergency traffic circulation and publish the most efficient routes in advance in Charlton County and the Cities of Folkston and Homeland.***

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Road Departments
<b>Anticipated Cost</b>	\$6,500
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #3: Distribute information concerning hazard mitigation to area news markets and speak at schools and civic clubs in Charlton County and the Cities of Folkston and Homeland.***

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #4: Provide funding for programs that enhance public safety and health in Charlton County.***

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	\$1,800,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/Quality Growth Grants
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Objective #3: Ensure reliable electrical power and communications efficiency at Critical Facilities and among agencies during Hurricanes/Tropical Storms and other events in Charlton County and the City of Homeland.**

<b><i>Action Step #1: Purchase generators and trailers at Critical Facilities, including the City of Homeland and St. George Road Department.</i></b>	
<b>Responsible Department</b>	Charlton County and City of Homeland Public Works
<b>Anticipated Cost</b>	\$500,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA/Homeland Security/Red Cross
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Deferred from 2012-2017 due to costs
<b><i>Action Step #2 (formerly #3): Install new and/or repair existing radio repeaters, towers, and antennas, which will be automated and zone-specific, in Charlton County (especially at Winoker, Race Pond, Georgia Bend, and Rayonier Land at the south end of county) and the Cities of Folkston and Homeland. Also, install towers.</i></b>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	\$350,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA/Homeland Security
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b><i>Action Step #3 (formerly #4): Install GPS location systems in Emergency Vehicles.</i></b>	
<b>Responsible Department</b>	Charlton County Sheriff/Fire/EMS Departments, Folkston Police & Fire

	Departments, Homeland Police & Fire Departments
<b>Anticipated Cost</b>	\$2,500 per vehicle
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #4 (formerly #5): In Charlton County, purchase 15 Sheriff Vehicles for emergency use.</b></i>	
<b>Responsible Department</b>	Charlton County Sheriff's Department
<b>Anticipated Cost</b>	\$40,000 each
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County
<b>Timeframe</b>	Ongoing After Implementation 2018-2023
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #5 (formerly #6): In the City of Homeland, purchase 1 Police Vehicle for emergency use.</b></i>	
<b>Responsible Department</b>	City of Homeland Police Department
<b>Anticipated Cost</b>	\$40,000 each
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	City of Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #6 (formerly #7): In the City of Folkston, purchase 5 Police vehicles for emergency use.</b></i>	
<b>Responsible Department</b>	City of Folkston Police Department
<b>Anticipated Cost</b>	\$40,000 each
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	City of Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #7 (formerly #8): In the City of Homeland, purchase one generator for water facilities to use during emergencies and pre-wire for generators to serve the entire population of 1,025 persons.</b></i>	
<b>Responsible Department</b>	City of Homeland Water Dept./Charlton County EMA

<b>Anticipated Cost</b>	\$60,000 each
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	City of Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #9 (formerly #10): Identify kitchens, restaurants, and fast-food establishments that use natural gas or propane if electricity is out for long periods during emergencies.</b></i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Objective #4: (New) To prepare all key personnel to help build preparedness for threats and hazards during Hurricane/Tropical Storms and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.**

<i><b>Action Step #1 (New Action Step): Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk, cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.</b></i>	
<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies are intended to be carried out by each local jurisdiction. However, the applicable jurisdictions are noted in some instances where the Action Step may not apply to all jurisdictions.

## **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The primary criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 5.

## **F. Action Steps:**

### **Goal 1 Objective 1**

**Action Step #1:** Develop C.E.R.Ts (Community Emergency Response Teams) in Charlton County and the Cities of Folkston and Homeland. This program has been discontinued.

**DELETED.**

**Action Step #2:** Charlton County is considered a Coastal County. Therefore, no shelters are allowed. **DELETED:**

**Action Step #3:** St. Marys River Bluff Road was removed from this action step. **CHANGED/CONTINUE.**

**Action Step #4:** **UNCHANGED/CONTINUE.**

**Action #5:** **UNCHANGED/CONTINUE.**

**Action Step #6:** Designate and attempt to supply new Red Cross Shelters in Charlton County and the Cities of Folkston and Homeland. Shelters are not allowed in Charlton County for Hurricanes/Tropical Storms. **DELETED.**

**Action Step #7:** The US-1 portion has been completed. **PARTIALLY COMPLETED/ONGOING.**

**Action Step #8:** Two new ambulances have been purchased, but we want to continue to purchase more in the next five years. Changed anticipated cost to \$400,000. **COMPLETED/ CONTINUE.**

### **Goal 1 Objective 2**

**All Action Steps (1-4):** **UNCHANGED/CONTINUE.**

### **Goal 1 Objective 3:**

**Action Step #1:** The City of Folkston has generators. County will not be supplying churches with generators. EMA/EMS Main Building has a generator, and the Sheriff's Office has a generator. **Increased anticipated costs. PARTIALLY COMPLETED/ CONTINUE.**

**Action Step #2: COMPLETED.**

**Action Step #3: Added towers and increased cost. CONTINUE.**

**Action Step #4: Partially completed.** Ambulances and road graders have GPS. **PARTIALLY COMPLETED/CONTINUE.**

**Action Step #5:** Continue to purchase vehicles for the next five years. **COMPLETED/CONTINUE.**

**Action Step #6: COMPLETED/CONTINUE.**

**Action Step #7: COMPLETED/CONTINUE.**

**Action Step #8: Purchased one generator. CONTINUE.**

**Action Step #9: Main well on an automatic generator. The other two can be rolled around. COMPLETED.**

**Action Step #10: UNCHANGED/CONTINUE.**

## **Section II Flood/SLOSH**

### **A. Community Mitigation Goals:**

As previously indicated in Chapter 2 Section II, Floods/SLOSH may cause substantial damage to life, property, and the economy in Charlton County, Folkston, and the City of Homeland. Additionally, floods/SLOSH are unpredictable and could happen in any Flood in a SLOSH-prone area.

The Charlton County HMPUC believes that since many of the major Flood/ SLOSH areas are located on or adjacent to the Satilla River & St. Marys River, numerous other creeks and streams and certain areas surrounding the main drainage canals in Charlton County, the City of Folkston and the City of Homeland and the fact that flooding regularly occurs in certain areas due to rainfall and other factors, this comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the threat of Flood/SLOSH damage in Charlton County, the City of Folkston and the City of Homeland.



### **C. Identification and Analysis of the Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Flood/SLOSH in Charlton County, the City of Folkston, and the City of Homeland.

#### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (Contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

#### **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

#### **3. Community Values, Historical and Special Considerations:**

Charlton County, the City of Folkston, and the City of Homeland have historic buildings, a few of which are Critical Facilities. Therefore, historical and particular considerations pose significant challenges regarding the potential Hazard Mitigation Flood Planning Activities involving historic buildings.

The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard is outlined below in Section C.

There are no Critical Facilities that are also historic properties that appear in the floodplain according to GMIS. The GMIS reports do list three (3) Repetitive Loss/NFIP properties in Charlton County, one (1) in the City of Folkston, and none in the City of Homeland.

#### **4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include Action Steps designed to protect new buildings and infrastructure from the effects of Flood/ SLOSH.

#### **5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations include Action Steps designed to protect existing buildings and infrastructure from the effects of Flood/SLOSH.

### **C. Flood-Mitigation Strategy and Recommendation:**

**Goal#1: Prevent or reduce damage caused by Floods/SLOSH in Charlton County, Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities, and Infrastructure, due to Floods/SLOSH.**

**Action Step #1:** Conduct studies of and implement projects to protect the Critical Facilities & Infrastructure from Flood/SLOSH damages in Charlton County and the Cities of Folkston and Homeland.

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	\$700,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/HUD CDBG
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Action Step #2:** Conduct storm-water drainage replacement, repair & cleaning, and maintain canals in Charlton County and the Cities of Folkston and Homeland.

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	\$500,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/HUD CDBG/SPLOST
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Action Step #3:** Plan flood and drainage projects in Charlton County on Billie Thrift Road, Black River Area (St Marys), B.M. Prescott Road, Bragg Street (St. George), Canady Loop, Chancey Road Bridge, GA Bend Area, Lavender Road, Lonnie Todd Road, Newell Road, Paxton Road (at Spanish Creek Road), St Marys River Bluff Rd, Willie Dixon Road, Eston Prescott Road and in other Flood/SLOSH prone areas, including installing and replacing culverts.

<b>Responsible Department</b>	Charlton County Public Works Departments
<b>Anticipated Cost</b>	\$500,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/HUD CDBG/SPLOST
<b>Jurisdiction</b>	Unincorporated Charlton County
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Action Step #4 (formerly #6):** Enact a public awareness campaign regarding Floods/SLOSH and develop brochures for developers & the public regarding land clearing, roads, erosion, and building in unincorporated Charlton County and in the City of Folkston and the City of Homeland to ensure Flood/SLOSH protection, as funds become available to do so.

<b>Responsible Department</b>	Charlton County Permitting Dept.
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<b>Anticipated Cost</b>	\$25,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2024
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #5 (formerly #7):</b> Provide funding for the support of the St. Marys River Management Committee and contribute funding to support GA DNR programs that study St. Marys and Satilla Rivers.</i>	
<b>Responsible Department</b>	Charlton County Commission/Folkston City Council/Homeland City Council
<b>Anticipated Cost</b>	\$5,000/Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #6 (formerly #8):</b> Update &amp; enforce laws regarding proper drainage (2000+ properties w/out culvert pipes), purchase pipes for public sale, change mailbox locations, explore replacing undersized pipes with at least 18" &amp; 24" pipes, construct more outfall ditches &amp; acquire more drainage easements, do regular maintenance on drainage/outfall ditches in Charlton County and the City of Folkston and the City of Homeland.</i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Road Departments
<b>Anticipated Cost</b>	\$500,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/HUD CDBG
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #7 (formerly #9):</b> Work to alleviate present &amp; future evacuation &amp; emergency access problems in subdivisions in Charlton County, Folkston, and the City of Homeland.</i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Road Departments
<b>Anticipated Cost</b>	\$500,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA/HUD CDBG/GDOT

<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #8 (formerly #10):</b> Work to preserve wetland areas in Charlton County, Folkston, and the City of Homeland to ensure that excess water can be captured.</i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Building & Code Departments
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #9 (formerly #11):</b> After Flood/SLOSH events or other hazard events in Charlton County and the City of Folkston, and the City of Homeland, attempt to analyze properties affected to determine if circumstances have occurred in the past and attempt to mitigate or purchase, if necessary.</i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	\$500,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA/HUD CDBG
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #10 (formerly #12):</b> Plan flood and drainage projects in the City of Homeland in the Nature Trail Estates area and other flood-prone areas, including installing and replacing culverts.</i>	
<b>Responsible Department</b>	City of Homeland Public Works Dept.
<b>Anticipated Cost</b>	\$500,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA/HUD CDBG
<b>Jurisdiction</b>	City of Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #11 (formerly #13):</b> Continue membership in the NFIP by adopting updated ordinances, and FIRM maps as updates are available.</i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time

<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA Homeland Security
<b>Jurisdiction</b>	Unincorporated Charlton County and Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Objective #2 (New): To prepare all key personnel to help build preparedness for threats and hazards during Flood/SLOSH and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.**

***Action Step #1 (New Action Step):** Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk, cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.*

<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy.**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The primary criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

## **F. Action Steps:**

### **Goal #1 Objective #1**

**Action Step #1:** Increased anticipated costs. **CONTINUE.**

**Action Step #2:** SPLOST was added to the funding source. **CHANGED AND CONTINUE.**

**Action Step #3:** Forrest was completed, two culverts were placed at Jimmy Todd Road, Lowther Road project was completed, Newell Road was lime rocked, paved and new bridges were added, Paxton Road had new bridges added, Pinehurst projected was completed, Ralph Davis Road had new a new bridge installed, Allen O-Berry Road had cross drains added, Forest Lake area was and paved and culverts replaced, Jimmy Todd Rd has cross drains added, Lowther Rd had cross drains added, Pinehurst area was paved, ditches were dug, and culverts replaced, Ralph Davis Rd had cross drains added, and the bridge was replaced, St. Marys Bluff Rd portion was paved, Roddenberry Rd had cross drains added, Creek Landing Rd had cross drains added, and Emmaus Church Rd had cross drains added. Changed Sardis to Spanish Creek, changed St. Marys River Area to St. Marys Bluff Rd, and added Eston Prescott Rd. They deleted State Highways. SPLOST was added to Funding Source. **PARTIALLY COMPLETED. CONTINUE WITH NEW PROJECTS ADDED.**

**Action Step #4:** The Soil Erosion and Sedimentation Ordinance is enforced, and Land Use Ordinance is enforced. EPD also enforces this. **DELETED.**

**Action Step #5:** No flooding issues around facilities. **DELETED.**

**Action Step #6:** Expected to complete this project in FY 2023. Added Permitting to Responsible Departments. **CONTINUE.**

**Action Step #7:** Completed for FY 2018- FY 2023. Added staff time to the funding source. **COMPLETED/CONTINUE.**

**Action Step #8:** **CONTINUE.**

**Action Step #9:** Reworded. **CONTINUE.**

**Action Step #10:** **CONTINUE.**

**Action Step #11:** **CONTINUE.**

**Action Step #12:** **CONTINUE.**



## **Action Step #13: CONTINUE.**

### **Section III Wildfire**

#### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section III, Wildfire may cause substantial damage to life, property, and the economy in Charlton County, Folkston, and the City of Homeland. Wildfire is unpredictable and could happen at any time and place in Charlton County, the City of Folkston, and the City of Homeland. The Charlton County HMPUC believes that, because Wildfire may cause significant damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the threat of Wildfire damage in Charlton County, the City of Folkston and the City of Homeland.

#### **B. Identification and Analysis of the Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified the comprehensive range of Mitigation Goals, Objectives, and Action Steps below to reduce or eliminate the damage caused by Wildfire in Charlton County, the City of Folkston, and the City of Homeland.

##### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

##### **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

Volunteers staff all five (5) Fire Department properties in Charlton County. The county has zero (0) full-time fire departments. However, it now maintains a full-time Fire Chief and Assistant Fire Chief position. This and other factors combine to affect the overall safety of the residents and affect the reporting of the dangerous or hazardous conditions that we are attempting to report on and plan Hazard Mitigation for here. In addition, the City of Folkston and the City of Homeland do not have fire departments.

The following relates to the ISO Classes of Charlton County, the City of Folkston, and the City of Homeland. Regarding ISO Documentation:

##### **CHARLTON COUNTY**

Station 1: Folkston:	Class 5/9/10
Station 2: St. George:	Class 5/9/10
Station 3: Racepond:	Class 5/9/10
Station 4: GA Bend:	Class 5/9/10

Georgia law requires that a permit be issued for most types of outdoor burning. To request a permit, all needed is to contact the local Georgia Forestry Commission or visit [www.gatrees.org](http://www.gatrees.org) to apply online. If conditions are favorable for burning, a permit will be granted. According to Georgia law, burning without a permit is a misdemeanor with fines up to \$1,000.00.

Since the previous plan was completed, Charlton County has applied for and received several FEMA Assistance to Firefighters Grants. In addition, a Staffing for Adequate Fire and Emergency Response Grant was used to lower the risk of Wildfire.

Development continues in Charlton County, the City of Folkston, and the City of Homeland, with many new constructions in areas bordered by pine tree production and other naturally growing trees. More and more people are making their homes in woodland near forests or rural areas. These homeowners enjoy the beauty of the environment but face the real danger of wildfires. This is not a new phenomenon, but it has always been the case. The trend is for this to continue.

The three jurisdictions have many current policies and programs related to hazard mitigation, described in detail in the Goals, Objectives, and Action Steps contained in Sections I through X of Chapter 4 of this Plan and Section I of Chapter 5. All jurisdictions (within the boundaries of their budgets) can expand and improve their existing policies and programs, as evidenced by the new and existing Goals, Objectives, and Action Steps included in this plan. The number of resources available to the three jurisdictions for expanding and improving existing programs will depend on local government budgets and state and federal funding to support hazard mitigation activities.

Since the previous plan was completed, no community development changes would increase or decrease the community's overall vulnerability to the hazard.

All jurisdictions (within the boundaries of their budgets) can expand and improve their existing policies and programs, as evidenced by the new and existing goals, objectives, and action steps included in this plan.

### **3. Community Values, Historical and Special Considerations:**

Charlton County, the City of Folkston, and the City of Homeland have historic buildings, a few of which are Critical Facilities. No historical or special considerations pose significant challenges regarding the potential Hazard Mitigation Wildfire Planning Activities involving historic buildings. The Charlton County Courthouse and others are Critical Facilities that should be considered potentially eligible for the National Register. The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

#### 4. New Buildings and Infrastructure:

The mitigation strategy and recommendations include action steps to protect new buildings and infrastructure from wildfire.

#### 5. Existing Buildings and Infrastructure:

The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of wildfire.

### C. Wildfire-Mitigation Strategy and Recommendation

**Goal #1: Prevent or reduce damage caused by wildfires in Charlton County, Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure and woodlands due to Wildfire.**

***Action Step #1: Provide additional first responder training, training mannequins, extrication equipment, air units, air unit chargers, 1 Class A Pumper and/or Fire Knocker trucks, tankers, and other equipment to all Charlton County Volunteer Fire Stations for Wildfire use.***

<b>Responsible Department</b>	Charlton County Fire Dept., Charlton County EMA
<b>Anticipated Cost</b>	\$1,750,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA, USFWS
<b>Jurisdiction</b>	Charlton County
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #2: Plan to acquire property for new Charlton County Volunteer Fire Stations (including Georgia Bend [New], moving Race Pond Station, & Station #1), new additions & modifications to existing stations.***

<b>Responsible Department</b>	Charlton County Fire Dept., Charlton County EMA
<b>Anticipated Cost</b>	\$500,000 each
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Charlton County
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #3: In the City of Folkston and the City of Homeland (on Reynolds Road [New], Robin Lane [New], Paxton Road area, and other areas), replace the four-***

<i>inch (4") or fewer water lines with 6" to 8" water lines and hydrants, tie in Robin Lane and connect Homeland Water System.</i>	
<b>Responsible Department</b>	City of Folkston/City of Homeland Public Works Depts.
<b>Anticipated Cost</b>	\$1,500,000 each
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA DCA CDBG
<b>Jurisdiction</b>	City of Folkston, City of Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #6:</b> In the City of Folkston, complete the preparation of a comprehensive set of water system maps to identify problem areas.</i>	
<b>Responsible Department</b>	City of Folkston Water Dept.
<b>Anticipated Cost</b>	\$10,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	City of Folkston
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #7:</b> Work with CSX and other railroads to reduce inadequate slopes that impeded heavy fire equipment from crossing tracks, including Maddox Rd. (marginal), Martha Dowling Rd. (poor), Mizell Rd. (poor), Sawfly Rd. (poor), Old Racepond Rd. (not passable), and others.</i>	
<b>Responsible Department</b>	Charlton County Road Dept.
<b>Anticipated Cost</b>	\$100,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Charlton County
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #8:</b> Complete hydro studies on ponds with dry hydrants to receive approval for ISO.</i>	
<b>Responsible Department</b>	Charlton County Public Works
<b>Anticipated Cost</b>	\$50,000 for each site
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Charlton County
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Objective #2: Obtain a FireWise Community Status by educating the Charlton County, City of Folkston, and the City of Homeland Fire Department personnel and the public on the hazards of Wildfire and the pre-disaster mitigation thereof.**

**Action Step #1:** *Maintain good public relations between the citizens of Charlton County and the City of Folkston and the City of Homeland, and the County Fire Departments, and plan to increase levels of awareness and resources during peak hazard conditions through the use of education sessions, community meetings, citizens academy, etc.*

<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing

**Action Step #2:** *Partner with the Georgia Forestry Commission to educate Charlton County, the City of Folkston, and the City of Homeland communities and citizens on the pre-disaster mitigation of Wildfire and use & develop grade school-based programs to educate children.*

<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, IAFC grants, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing

**Action Step #3:** *Plan RFD meetings in Charlton County and the Cities of Folkston and Homeland and hold joint mock fire drills for all fire stations.*

<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	\$5,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028

<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<b>Action Step #4:</b> <i>Work to implement the National Cohesive Wildland Fire Management Strategy and educate the public on its merits.</i>	
<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	\$2,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, NFPA Grants, IAFC Grants, USFWS, GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	New
<b>Action Step #5:</b> <i>Work to bring a Prevention Education Team (FPET) or Community Mitigation Assistance Team (CMAT) event to the area during high wildfire activity or preparedness periods.</i>	
<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	\$50,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	New
<b>Action Step #6:</b> <i>Work to bring fire and fire prevention training events to the area twice a year, such as wildlands, major and commercial structures, Haz-Mat, etc.</i>	
<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	\$10,000 per year
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	New

**Objective #3: Implement priorities, projects, and recommendations in GA Forestry Commission’s “Community Wildfire Protection Plan.”**

**Action Step #1:** *Create a minimum of 50 feet of defensible space around all governmental structures and recommend to homeowners & community stakeholders*

*that they create the same area through the trimming of shrubs and vines, overhanging limbs, replacement of flammable plants with less flammable varieties and remove vegetation around chimneys.*

<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept. & Charlton County/City of Folkston/City of Homeland Public Works Depts.
<b>Anticipated Cost</b>	\$250 an acre
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, DOHS-FEMA/GEMA, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #2:** Reduce structural ignitability by cleaning flammable vegetative materials from roofs and gutters, store firewood appropriately, install skirting around raised structures, store water hoses for easy access and replace pine straw and mulch around plantings with less flammable landscaping materials around all governmental structures and recommend same to homeowners and community stakeholders.*

<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept. & Charlton County/City of Folkston/City of Homeland Public Works Depts.
<b>Anticipated Cost</b>	\$250 an acre
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, DOHS-FEMA/GEMA, USFWS, NFPA grants
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #3:** Hold Community Spring Clean-Up Day on the 3<sup>rd</sup> Saturday in May and cut, prune and mow vegetation in shared community spaces.*

<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept. & Charlton County/City of Folkston/City of Homeland Public Works Depts.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028



<b>Priority</b>	High
<b>Status</b>	Ongoing
<b>Action Step #4: Ensure Driveway Access/Right-Of-Way Clearance by maintaining vertical and horizontal clearance for emergency equipment and seeing that the culvert's adequate lengths and weight-bearing capacity are installed to allow emergency vehicle access.</b>	
<b>Responsible Department</b>	Charlton County/City of Folkston/City of Homeland Road Depts., Building Inspection Depts. & Public Works Depts.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b>Action Step #5 (formerly #6): Examine existing codes and ordinances and amend and enforce existing building codes as they relate to skirting, propane tank locations, public nuisances (trash/debris on the property), and other relevant concerns; Review subdivision and development ordinances for public safety concerns; Enact and enforce uniform addressing ordinance.</b>	
<b>Responsible Department</b>	Charlton County/City of Folkston/City of Homeland Building Inspection Depts. & Public Works Depts.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b>Action Step #7 (formerly #8): On adjacent WUI Lands, reduce hazardous fuels by encouraging prescribed burning for private landowners and industrial timberlands, particularly adjacent to residential areas; Seek a grant for WUI Mitigation Team.</b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept., Charlton County/City of Folkston/City of Homeland Building Inspection Depts. & Public Works Depts.
<b>Anticipated Cost</b>	\$30 an acre
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, DOHS-GEMA/FEMA, USFWS, GA Forestry

<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #8 (formerly #9):</b> Encourage railroads to maintain their ROW better, eliminating brush and grass through herbicide and mowing. Maintain firebreaks along ROW adjacent to residential areas.</i>	
<b>Responsible Department</b>	Charlton County Fire Dept., Charlton County/City of Folkston/City of Homeland Building Inspection Depts. & Public Works Depts.
<b>Anticipated Cost</b>	\$250 an acre
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, DOHS-FEMA/GEMA, USFWS, GA Forestry
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #9 (formerly #10):</b> Encourage all residents and businesses to improve existing fire lines by reducing hazardous fuels by cleaning and re-harrowing existing lines.</i>	
<b>Responsible Department</b>	Georgia Forestry
<b>Anticipated Cost</b>	\$250 an acre
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, DOHS-FEMA/GEMA, USFWS, GA Forestry
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #10 (formerly #11):</b> Ensure access to water sources and dry hydrants by inspecting, maintaining, and improving access to existing dry hydrants, adding signage along roads to mark the hydrants, and locating additional dry hydrants as needed.</i>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept., Charlton County/City of Folkston/City of Homeland Road Depts. & Public Works Depts.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland

<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b><i>Action Step# 11 (formerly #12): Ensure all fire stations and firefighters are equipped with wildland hand tools and investigate the need for brush trucks.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	\$80,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, DHS FEMA/GEMA, AFG/SPLOST
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b><i>Action Step #12 (formerly #13): Investigate the need for additional drafting pumps and apply for grants, if necessary.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	\$5,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, DHS FEMA/GEMA, AFG/SPLOST
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023/2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b><i>Action Step #13 (formerly #14): Ensure that all personnel are trained in Wildfire Suppression</i></b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	<b>2023-2028</b>
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b><i>Action Step #14 (formerly #15): Conduct a “Fire Adapted Communities” Workshop for Charlton County residents.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	Staff Time

<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Deferred from 2012-2017 due to project cost.
<b><i>Action Step #15 (formerly #16): Conduct a “Fire Adapted Communities” Workshop for Charlton County community leaders.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Deferred from 2012-2017 due to project cost.
<b><i>Action Step #16 (formerly #17): Develop and distribute Fire Adapted Communities informational packets to code enforcement, realtors &amp; insurance agents.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b><i>Action Step # 17 (formerly #18): Continue to work with Georgia Forestry to create and exhibit a Wildfire Protection Display for the general public at local events. The display can be independent or combined with the GA Forestry Commission display.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High

<b>Status</b>	Ongoing
<b>Action Step #18 (formerly #19):</b> Invite Folkston & Waycross news media to community “Fire Adapted Communities” functions for news coverage and regularly submit press releases documenting wildfire risk improvements in Charlton County.	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b>Action Step # 19 (formerly #20):</b> Create a Charlton County WUI Fire Council to review progress towards mitigation goals, appoint & delegate special activities, and work with Federal, State, and Local officials to assess progress and develop future goals & action plans and work with residents, local landowners, refuge team, and Georgia Forestry, to implement projects and Fire Adapted Communities activities.	
<b>Responsible Department</b>	Charlton County EMA, Charlton County Fire Dept.
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GA Forestry, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<b>Action Step #20 (formerly #21):</b> Work to implement the Ready, Set, Go! (RSG) Program and educate the public on its merits.	
<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	\$5,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, IAFC grants and supplies, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	New

**Objective #4: Obtain Fire Adapted Communities status for St. George and Georgia Bend (both new FireWise Communities) and other areas, by starting work on multi-agency, multi-county, and multi-state (GA & FL) wildfire**

mitigation projects to address Wildfire risks.

<b>Action Step #1:</b> <i>Maintain good public relations between the citizens of Charlton County and the City of Folkston, the City of Homeland, and the surrounding Georgia counties of Brantley, Camden, Clinch, and Ware &amp; the Florida counties of Baker, Columbia &amp; Nassau.</i>	
<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<b>Action Step #2:</b> <i>Coordinate work with all adjoining counties, planning increased awareness and resources during peak wildfire hazard conditions through education sessions, community meetings, citizen academies, etc.</i>	
<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<b>Action Step #3:</b> <i>Participate annually in National Community Wildfire Preparedness Day.</i>	
<b>Responsible Department</b>	Charlton County Commission, City of Folkston/City of Homeland City Councils
<b>Anticipated Cost</b>	\$500 per event
<b>Existing &amp; Potential Funding Sources</b>	NFPA Grants, USFWS
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	New

**Objective #5 (New):** To prepare all key personnel to help build preparedness for threats and hazards during Wildfires and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.

**Action Step #1 (New Action Step):** Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.

<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies apply to and are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

#### **F. Action Steps:**

##### **Goal #1 Objective #1**

**Action Step #1: CONTINUE.**

**Action Step #2: CONTINUE.**

**Action Step #3:** Reynolds Street is currently in progress. **CONTINUE.**

**Action Step #4:** Lake of interest from property owners. **CONTINUE.**



**Action Step #5: COMPLETED.**

**Action Step #6: CONTINUE.**

**Action Step #7:** Lidia Rd. was deleted from the list. Tracks are being repaired or replaced. The track in Racepond still needs upgrading. There will be temporary improvements to make roads more passable during the 2022 Fire Season. At a later date, all the necessary improvements will be made. **CONTINUE.**

**Action Step #8:** Reworded. Finding and qualifying more dry hydrants. Tanks are filled at Fire Stations with automatic filler. **PARTIALLY COMPLETED/CONTINUE.**

### **Goal #1 Objective #2**

**Action Step #1: CONTINUE.**

**Action Step #2: CONTINUE.**

**Action Step #3: CONTINUE.**

**Action Step #4: CONTINUE.**

**Action Step #5:** This process was used during the Okefenokee Wildfires in 2017. **CONTINUE.**

**Action Step #6: CONTINUE.**

### **Goal #1 Objective #3**

**Action Step #1: CONTINUE.**

**Action Step #2: PARTIALLY COMPLETED/CONTINUE.**

**Action Step #3: CONTINUE.**

**Action Step #4: CONTINUE.**

**Action Step #5:** Subdivision Regulations regulate road construction. **DELETED.**

**Action Step #6:** Property address marking has occurred. It has been corrected. Following Building Codes and Subdivision Regulations. Not feasible to ensure and enforce offset clearances. **CHANGED/CONTINUE.**

**Action Step #7: DELETED.**

**Action Step #8: CONTINUE.**

**Action Step #9: CONTINUE.**

**Action Step #10:** Responsible Department changed to Georgia Forestry.  
**CHANGED/CONTINUE.**

**Action Step #11: CONTINUE.**

**Action Step #12:** PPE gear has been purchased. Added SPLOST to the funding source.  
**CHANGED/CONTINUE.**

**Action Step #13:** Added SPLOST to the funding source. **CHANGED/CONTINUE.**

**Action Step #14: CONTINUE.**

**Action Step #15: CONTINUE.**

**Action Step #16: CONTINUE.**

**Action Step #17:** Expected to be completed in 2023. **CONTINUE.**

**Action Step #18:** Reworded. **CONTINUE.**

**Action Step #19:** This happens during and leading up to wildfires. **CONTINUE.**

**Action Step #20:** Work alongside the Refuge team, Georgia Forestry, and local landowners.  
**CONTINUE.**

**Action Step #21: CONTINUE.**

#### **Goal #1 Objective #4**

**Action Step #1: CONTINUE.**

**Action Step #2: CONTINUE.**

## **Section IV Tornado**

### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section IV, Tornadoes may cause substantial damage to life, property, and the economy in Charlton County, Folkston, and the City of Homeland. Tornadoes are unpredictable and could happen anywhere and anytime in Charlton County, the City of Folkston, and the City of Homeland. The Charlton County HMPUC believes that, since these Tornadoes may be extremely violent and cause significant damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the threat of Tornado damage in Charlton County, the City of Folkston and the City of Homeland.

## **B. Identification and Analysis of the Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Tornadoes in Charlton County, the City of Folkston, and the City of Homeland.

### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

### **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

### **3. Community Values, Historical and Special Considerations:**

Charlton County, the City of Folkston, and the City of Homeland have historic buildings, a few of which are Critical Facilities. No historic and special considerations pose significant challenges regarding the potential Hazard Mitigation Tornado Planning Activities involving historic buildings. The Charlton County Courthouse and others are Critical Facilities that should be considered potentially eligible for the National Register. The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

### **4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of Tornadoes.

### **5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of Tornadoes.

## **C. Tornado-Mitigation Strategy and Recommendation:**

**Goal #1: Prevent or reduce damage caused by Tornadoes in Charlton County, Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, mainly Critical Facilities, and Infrastructure, due to Tornadoes.**

***Action Step #1: Use a building inspection program to inspect for adequate tie-downs on manufactured housing in Charlton County, Folkston, and the City of Homeland.***

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Building & Codes Department
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #2:</b> Plan pre-disaster mitigation in Tornado &amp; other hazard seasons by preparing public service announcements and brochures and soliciting business participation to distribute information.</i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #3:</b> Promote safe shelter rooms in Charlton County, Folkston, and the City of Homeland, where Tornadoes and other disasters are frequent.</i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing
<i><b>Action Step #4:</b> Develop a grid pattern/address-based system to physically notify and check on high-risk residents before and after natural disaster events in the City of Folkston, the City of Homeland, and populated areas of Charlton County.</i>	
<b>Responsible Department</b>	Charlton County EMA, Sheriff's Dept.
<b>Anticipated Cost</b>	\$20,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Deferred from 2012-2017 due to project cost

**Action Step #5:** *Apply for a Response & Recovery Grant and secure funding for an automated hazardous weather alert system in Charlton County, Folkston, and the City of Homeland.*

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	\$20,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Deferred from 2012-2017 due to project cost

**Objective #2 (New):** To prepare all key personnel to help build preparedness for threats and hazards during Tornado and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.

**Action Step #1 (New Action Step):** *Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.*

<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies apply to and are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

#### **F. Action Steps:**

### **Goal 1 Objective 1**

**Action Step #1: UNCHANGED/CONTINUE.**

**Action Step #2: UNCHANGED/CONTINUE.**

**Action Step #3:** These shelters are located at churches. **UNCHANGED/CONTINUE.**

**Action Step #4:** Code Red is also being used. Added Sheriff's Dept. to Responsible Department. **CONTINUE.**

**Action Step #5:** TV news stations are used in Jacksonville, Fl. **UNCHANGED/CONTINUE.**

## **Section V Thunderstorms & Wind**

### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section V, Thunderstorms & Wind may cause substantial damage to life, property, and the economy in Charlton County, Folkston, and the City of Homeland. Thunderstorms & Wind are unpredictable and could happen anywhere and anytime in Charlton County, the City of Folkston, and the City of Homeland. The Charlton County HMPUC believes that, since these Thunderstorms and Wind may be extremely violent and cause significant damage, this comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the threat of Thunderstorm & Wind damage in Charlton County, the City of Folkston and the City of Homeland.

### **B. Identification and Analysis of the Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Thunderstorms & Wind in Charlton County, the City of Folkston, and the City of Homeland.

#### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

## **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

## **3. Community Values, Historical and Special Considerations:**

Charlton County, the City of Folkston, and the City of Homeland have historic buildings, a few of which are Critical Facilities. Therefore, historic and special considerations pose significant challenges regarding the potential Hazard Mitigation Thunderstorms & Wind Planning Activities involving wind retrofitting on historic buildings. The comprehensive range of Mitigation Goals, Objectives and Action Steps for this hazard are outlined below in Section C.

## **4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

## **5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

### **C. Thunderstorms & Wind-Mitigation Strategy and Recommendation**

**Goal #1: Prevent or reduce damage caused by Thunderstorms and Winds in Charlton County, the City of Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities, and Infrastructure, due to Thunderstorms and Winds.**

***Action Step #1:** Increase public awareness of weather radio distribution, shelters, emergency procedures, and a local radio station as the emergency broadcast system station in Charlton County and the Cities of Folkston and Homeland through public safety announcements, publications, and other means.*

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #2:** Determine wind ratings and plan to retrofit Critical Facilities in Charlton County and the Cities of Folkston and Homeland as funds become available.*

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time



<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #3:</b> Disseminate information to the public concerning wind ratings, champion new construction being built to those minimum wind standards, and champion the wind retrofitting of existing buildings in Charlton County and the Cities of Folkston and Homeland.</i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Building & Codes Department
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing
<i><b>Action Step #4:</b> Enforce existing dangerous building ordinances to prevent or reduce the number of loose materials blowing around and causing damage in Charlton County and the Cities of Folkston and Homeland.</i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Building & Codes Department
<b>Anticipated Cost</b>	\$20,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing

**Objective #2 (New):** To prepare all key personnel to help build preparedness for threats and hazards during Thunderstorm/Wind and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.

***Action Step #1 (New Action Step):** Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk, cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.*

<b>Responsible Department</b>	Charlton County EMA, GEMA
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<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies apply to and are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

#### **F. Action Steps:**

##### **Goal 1 Objective 1**

**Action Step #1:** TV news stations are used for this in Jacksonville, FL.  
**UNCHANGED/CONTINUE.**

**Action Step #2: UNCHANGED/CONTINUE.**

**Action Step #3: UNCHANGED/CONTINUE.**

**Action Step #4: UNCHANGED/CONTINUE.**

## **Section VI Severe Winter Storm**

### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section VI, Severe Winter Storms may cause substantial damage to life, property, and the economy in Charlton County, Folkston, and the City of Homeland. Severe Winter Storms are usually predictable and could happen at any place in Charlton County, the City of Folkston, and the City of Homeland during the period surrounding the winter months.

Severe Winter Storms may cause substantial problems. Charlton County, Folkston, and the City of Homeland are so far south that specialized equipment used during Severe Winter Storms that most northern counties and cities possess is unavailable. Therefore, the Charlton County HMPUC believes that, since these Severe Winter Storms have the potential to cause significant damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the threat of Severe Winter Storm damage in Charlton County, the City of Folkston and the City of Homeland.

### **B. Identification and Analysis of Range of Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Severe Winter Storms in Charlton County, the City of Folkston, and the City of Homeland.

#### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

#### **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

#### **3. Community Values, Historical and Special Considerations:**

Charlton County, the City of Folkston, and the City of Homeland have historic buildings, a few of which are Critical Facilities. Therefore, historic and special considerations pose significant challenges regarding the potential Hazard Mitigation Thunderstorms & Wind Planning Activities involving wind retrofitting on historic buildings. The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

Worksheet #4-STAPLEE Criteria was completed for each Action Step. In addition, please see the worksheets contained in Appendix D Section I.

#### **4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

#### **5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

### **C. Severe Winter Storm-Mitigation Strategy and Recommendation:**

**Goal #1: Prevent or reduce damage caused by Severe Winter Storms in Charlton County, the City of Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities, and Infrastructure, due to Severe Winter Storms.**

***Action Step #1: Continue the policy of wrapping exposed piping with insulation and installing new insulation layers at Critical Facilities in Charlton County, Folkston, and the City of Homeland.***

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	\$5,000 per year
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #2: Maintain temperatures above 32 degrees to prevent freezing in government-owned occupied and unoccupied structures in Charlton County, Folkston, and the City of Homeland.***

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	\$5,000 per year
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing

***Action Step #3: Disseminate information to the public concerning Severe Winter Storms, champion new construction being built to appropriate low-temperature***

*ratings, and existing buildings being retrofitted in Charlton County and the City of Folkston, and the City of Homeland.*

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing

**Objective #2 (New): To prepare all key personnel to help build preparedness for threats and hazards during Severe Winter Storms and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.**

***Action Step #1 (New Action Step):** Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.*

<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies apply to and are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

**F. Action Steps:**

**Goal 1 Objective 1**

**Action Step #1: UNCHANGED/CONTINUE.**

**Action Step #2: UNCHANGED/CONTINUE.**

**Action Step #3: TV news stations are used in Jacksonville, FL. UNCHANGED/CONTINUE.**

## **Section VII Hail**

**A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section VII, Hail may cause substantial damage to life, property, and the economy in Charlton County, Folkston, and the City of Homeland. Hail is unpredictable and could happen at any time and place in Charlton County, the City of Folkston, and the City of Homeland. The Charlton County HMPUC believes that, since Hail may be extremely violent and cause significant damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the threat of Hail damage in Charlton County, the City of Folkston and the City of Homeland.

**B. Identification and Analysis of the Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Hail in Charlton County, the City of Folkston, and the City of Homeland.

**1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes both structural & non-structural mitigation solutions that the Charlton County HMPUC has considered.

**2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains information regarding existing policies, regulations, ordinances, and land use that are relevant to this hazard.

**3. Community Values, Historical and Special Considerations:**

Charlton County, the City of Folkston, and the City of Homeland have historic buildings, a few of which are Critical Facilities. In addition, historical or special considerations pose significant challenges regarding the potential Hazard Mitigation Hail Planning Activities involving historic buildings. These involve storm window installation on historic buildings. The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

**4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

**5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of this hazard.

**C. Hail-Mitigation Strategy and Recommendation**

**Goal #1: Prevent or reduce damage caused by Hail in Charlton County, Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities, and Infrastructure, due to Hail.**

<i><b>Action Step #1: Install storm windows and/or ballistic film on new and existing Critical Facilities and promote their installation on new and existing private buildings in Charlton County, Folkston, and the City of Homeland.</b></i>	
<b>Responsible Department</b>	Charlton County/Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	\$125,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/GEMA/FEMA/Red Cross
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Deferred from 2012-2017 due to costs
<i><b>Action Step #2: Encourage the public to include hail damage under insurance coverage and store equipment &amp; vehicles under shelters in Charlton County and the Cities of Folkston and Homeland.</b></i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds



<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2018-2023
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Objective #2 (New): To prepare all key personnel to help build preparedness for threats and hazards during Hail and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.**

***Action Step #1 (New Action Step):** Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.*

<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies apply to and are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

## **F. Action Steps:**

### **Goal 1 Objective 1**

**Action Step #1:** Install storm windows and/or ballistic film on new and existing Critical Facilities and promote their installation on new and existing private buildings in Charlton County, Folkston, and the City of Homeland.

**Action Step #2:** Encourage the public to include hail damage under insurance coverage and store equipment & vehicles under shelters in Charlton County and the Cities of Folkston and Homeland.

## **Section VIII Drought**

### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section VIII, Drought may cause damage to life, property, and the economy in Charlton County, the City of Folkston, and the City of Homeland, particularly regarding crop damage. Its effects can be long-term, and the damage increases as time goes by. In addition, Drought conditions contribute to Wildfires in the community. Therefore, the Charlton County HMPUC believes that, since Drought can cause such damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the impact of Drought on Charlton County, the City of Folkston and the City of Homeland.

### **B. Identification and Analysis of Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Drought in Charlton County, the City of Folkston, and the City of Homeland. These include structural and non-structural solutions that the Committee has considered.

#### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

#### **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

#### **3. Community Values, Historical and Special Considerations:**

Charlton County, Folkston, and the City of Homeland have no historic and special considerations that pose significant challenges regarding the potential Hazard Mitigation Drought Planning Activities involving historic buildings. The

comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

**4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

**5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of this hazard.

**C. Drought-Mitigation Strategy and Recommendation:**

**Goal #1: Prevent or reduce damage caused by Drought in Charlton County, Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure due to Drought.**

***Action Step #1:** Seek input from State and Federal agencies to enact procedures during Drought to limit water usage in Charlton County, the City of Folkston, and the City of Homeland.*

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Building & Codes Departments
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

***Action Step #2:** Replace antiquated water & sewer lines and equipment prone to failure in the City of Folkston and the City of Homeland through CDBG grant funds and other funds.*

<b>Responsible Department</b>	Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	\$1,000,000 for each project
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds/HUD CDBG/SPLOST
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Action Step #3:** *Work with the County Extension Agent to distribute literature related to best management practices in Charlton County, Folkston, and the City of Homeland.*

<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Action Step #4:** *Promote increased surface water and surface artesian flow usage for irrigation instead of well systems in Charlton County, Folkston, and the City of Homeland.*

<b>Responsible Department</b>	Charlton County/Folkston/Homeland Public Works Departments
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	Medium
<b>Status</b>	Ongoing

**Objective #2 (New):** To prepare all key personnel to help build preparedness for threats and hazards during Drought and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.

**Action Step #1 (New Action Step):** *Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk, cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.*

<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies apply to and are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

#### **F. Action Steps:**

##### **Goal 1 Objective 1**

**Action Step #1: UNCHANGED/CONTINUE.**

**Action Step #2:** SPLOST was added as a funding source, and Anticipated Costs were increased due to the CDBG increase. **CHANGED/CONTINUE.**

**Action Step #4: UNCHANGED/CONTINUE.**

### **Section IX Lightning**

#### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section IX, Lightning may cause substantial damage to life, property, and the economy in Charlton County and the Cities of Folkston and Homeland. Lightning is unpredictable and could happen at any time and place in Charlton County or the Cities of Folkston and Homeland. The Charlton County HMPUC believes that, since Lightning can cause such damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the impact of Lightning on Charlton County, the City of Folkston, and the City of Homeland.

#### **B. Identification and Analysis of Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals,

Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Lightning in Charlton County, the City of Folkston, and the City of Homeland. These include structural and non-structural solutions that the Committee has considered.

**1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

**2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

**3. Community Values, Historical and Special Considerations:**

Charlton County, Folkston, and the City of Homeland have no historic and special considerations that pose significant challenges regarding the potential Hazard Mitigation Drought Planning Activities involving historic buildings. The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

**4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

**5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of this hazard.

**C. Lightning-Mitigation Strategy and Recommendation:**

**Goal #1: Prevent or reduce damage caused by Lightning in Charlton County, Folkston, and the City of Homeland.**

**Objective #1: Minimize losses to existing and future structures, especially Critical Facilities, and Infrastructure, due to Lightning.**

<i><b>Action Step #1 (formerly #2): Educate the public on the risk of lightning.</b></i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028

<b>Priority</b>	High
<b>Status</b>	Ongoing
<b><i>Action Step #2: Purchase portable warning signs that will inform residents.</i></b>	
<b>Responsible Department</b>	Charlton County BOC
<b>Anticipated Cost</b>	\$112,874.11
<b>Existing &amp; Potential Funding Sources</b>	Grant/EMA
<b>Jurisdiction</b>	Unincorporated Charlton County
<b>Timeframe</b>	2021-2022
<b>Priority</b>	High
<b>Status</b>	Ongoing

**Objective #2 (New): To prepare all key personnel to help build preparedness for threats and hazards during Lightning and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.**

<b><i>Action Step #1 (New Action Step): Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk, cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies apply to and are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.



The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

## **F. Action Steps:**

### **Action Step #1: Completed**

**Action Step #1 (formerly #2): UNCHANGED/CONTINUE.**

**Action Step #2 (added in December 2021): Ongoing**

## **Section X Extreme Heat**

### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 2 Section X, Extreme Heat may cause substantial damage to life, property, and the economy in Charlton County and the Cities of Folkston and Homeland. Extreme Heat is unpredictable and could happen at any place during the warmer months in Charlton County or the Cities of Folkston and Homeland. The Charlton County HMPUC believes that, since Extreme Heat can cause such damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the impact of Lightning on Charlton County, the City of Folkston and the City of Homeland.

### **B. Identification and Analysis of Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Extreme Heat in Charlton County, the City of Folkston, and the City of Homeland. These include structural and non-structural solutions that the Committee has considered.

#### **1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) includes structural and non-structural mitigation solutions that the Charlton County HMPUC has considered.

#### **2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains policies, regulations, ordinances, and land use relevant to this hazard.

#### **3. Community Values, Historical and Special Considerations:**

Charlton County, Folkston, and the City of Homeland have no historical and special considerations that pose significant challenges regarding the potential Hazard Mitigation Drought Planning Activities involving historic buildings. the comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard is outlined below in Section C.

#### **4. New Buildings and Infrastructure:**

The mitigation strategy and recommendations include action steps designed to protect new buildings and infrastructure from the effects of this hazard.

#### **5. Existing Buildings and Infrastructure:**

The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of this hazard.

### **C. Extreme Heat-Mitigation Strategy and Recommendation:**

**Goal #1: Ensure the citizens of Charlton County, the City of Folkston, and the City of Homeland are warned about the dangers of Extreme Heat.**

**Objective #1: Educate area citizens about the dangers of Extreme Heat Events**

<i><b>Action Step #1: Provide community education materials.</b></i>	
<b>Responsible Department</b>	Charlton County EMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

**Goal #2: Maintain comfortable temperatures in governmental buildings during warmer months.**

**Objective #1: Maintain HVAC mechanical systems in governmental buildings, update new procedures as required, and add insulation.**

<i><b>Action Step #1: Inspects systems bi-annually or as required.</b></i>	
<b>Responsible Department</b>	Charlton County EMA, Facilities Maintenance
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

**Objective #3 (New): To prepare all key personnel to help build preparedness for threats and hazards during Extreme Heat and other events and on hazard**

mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.

**Action Step #1 (New Action Step):** Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk, cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.

<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

#### **F. Action Steps:**

##### **Goal 1 Objective 1**

**Action Step #1: UNCHANGED/CONTINUE.**

##### **Goal 2 Objective 1**

**Action Step #1: Facilities Maintenance added to Responsible Department. CONTINUE.**

## **Section XI**

### **Public Health Emergency**

#### **A. Brief Narrative of Community Mitigation Goals:**

As previously indicated in Chapter 3 Section I, a Public Health Emergency may cause substantial damage to life, health, and the economy in Charlton County and the Cities of Folkston and Homeland. Public Health Emergencies are unpredictable and could happen at any place and at any time in Charlton County or the Cities of Folkston and Homeland. The Charlton County HMPUC believes that, since Public Health Emergencies can cause such damage, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce the impact of Public Health Emergencies on Charlton County, the City of Folkston and the City of Homeland.

#### **B. Identification and Analysis of Comprehensive Range of Mitigation Options:**

The Charlton County HMPUC has identified a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) to reduce or eliminate the damage caused by Public Health Emergencies in Charlton County, the City of Folkston, and the City of Homeland. These include non-structural solutions that the Committee has considered.

- 1. Structural and Non-Structural Mitigation:**

The comprehensive range of Mitigation Goals, Objectives, and Action Steps (in Section C below) includes non-structural mitigation solutions that the Charlton County HMPUC has considered.

- 2. Existing Policies, Regulations, Ordinances, and Land Use:**

Chapter 2 of this plan contains information regarding existing policies, regulations, ordinances, and land use that are relevant to this hazard.

- 3. Community Values, Historical and Special Considerations:**

Charlton County, Folkston, and the City of Homeland have no historic and special considerations that pose significant challenges regarding the potential Hazard Mitigation Drought Planning Activities involving historic buildings. The comprehensive range of Mitigation Goals, Objectives, and Action Steps for this hazard are outlined below in Section C.

- 4. New Buildings and Infrastructure:**

The public health emergency risk is mainly Charlton County's residents, not buildings and infrastructure. Therefore, the mitigation strategy and recommendations include action steps designed to protect the health and safety of the general public rather than new buildings and infrastructure.

- 5. Existing Buildings and Infrastructure:**

The public health emergency risk is mainly Charlton County's residents, not buildings and infrastructure. Therefore, the mitigation strategy and

recommendations include action steps designed to protect the health and safety of the general public rather than existing buildings and infrastructure.

### C. Public Health Emergency-Mitigation Strategy and Recommendation:

#### Goal #1: Protect the population of Charlton County from the effects of Public Health Emergencies.

##### Objective #1: Prepare ways to reduce public exposure to potential or active Public Health Emergencies.

<i><b>Action Step #1:</b> Increase immunization education, prevention, and pre-planning efforts, particularly for the homeless and low-income individuals in the community, and host flu shots and other immunization clinics.</i>	
<b>Responsible Department</b>	Charlton County Health Department
<b>Anticipated Cost</b>	\$100,000
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GEMA. FEMA, Health Department
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New
<i><b>Action Step #2:</b> Identify vulnerable populations (homeless, migrants, low income, etc.) and identify community groups to work with to reach and educate these populations regarding health issues.</i>	
<b>Responsible Department</b>	Charlton County Health Department
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GEMA. FEMA, Health Department
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New
<i><b>Action Step #3:</b> Develop a plan to identify community locations to obtain and distribute medical countermeasures, safe drinking water, food, ice, tarps, etc.</i>	
<b>Responsible Department</b>	Charlton County Health Department
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GEMA. FEMA, Health Department
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High

<b>Status</b>	New
<b><i>Action Step #4: Approach large businesses about working with EMA on developing public health emergency plans.</i></b>	
<b>Responsible Department</b>	Charlton County EMA & Health Department
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	Local Operating Funds, GEMA, FEMA, Health Department
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

**Objective #2 (New): To prepare all key personnel to help build preparedness for threats and hazards during Public Health Emergencies and other events and on hazard mitigation in general within Charlton County, the City of Folkston, and the City of Homeland.**

<b><i>Action Step #1 (New Action Step): Conduct “tabletop” exercises to help build preparedness for threats and hazards by providing a low-risk cost-effective environment to test and validate plans, policies, and capabilities and to identify resource requirements, capability gaps, strengths, areas for improvement, and potential best practices.</i></b>	
<b>Responsible Department</b>	Charlton County EMA, GEMA
<b>Anticipated Cost</b>	Staff Time
<b>Existing &amp; Potential Funding Sources</b>	GEMA
<b>Jurisdiction</b>	Unincorporated Charlton County & Cities of Folkston and Homeland
<b>Timeframe</b>	2023-2028
<b>Priority</b>	High
<b>Status</b>	New

#### **D. Special Multi-Jurisdictional Strategy and Considerations:**

Most of the above strategies are intended to be carried out by each local jurisdiction. However, in some instances where the action step may not apply to all jurisdictions, the applicable jurisdictions are noted in the table.

#### **E. Local Public Information and Awareness Strategy:**

The Charlton County EMA shall monitor and evaluate all plan sections annually. In addition, incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (TV, Web Site, Local Newspaper, City Council Meetings, County Commission Meetings, social media, etc.). By utilizing available resources, each

jurisdiction will keep the public constantly informed of the development of these strategies and how citizens can best assist with and/or take advantage of these efforts.

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property. For further details on plan execution, see Chapter 4.

#### **F. Action Steps:**

### **Goal 1, Objective 1**

**Action Step #1: UNCHANGED/CONTINUE.**

**Action Step #2: UNCHANGED/CONTINUE.**

**Action Step #3: UNCHANGED/CONTINUE.**

**Action Step #4: UNCHANGED/CONTINUE.**

**Note:** Worksheet #4-STAPLEE Criteria was completed for each Action Step. In addition, please see the worksheets contained in Appendix D.



## **Chapter #4:** **Executing The Plan:**

Summary of Changes:

Table 4.1 provides a brief description of each section in this chapter and a summary of the changes made.

<b>Chapter 4 Section</b>	<b>Updates to Section</b>
I. Implementation of the Action Plan	<ul style="list-style-type: none"><li>■ Revised and Updated Language</li><li>■ The plan was updated to reflect cities' responsibilities</li></ul>
II. Evaluation, Monitoring, Updating	<ul style="list-style-type: none"><li>■ Revised and Updated Language</li><li>■ Annual public evaluation meeting to be held instead of annual evaluation by telephone and informal discussion.</li><li>■ The section was not otherwise modified as it was found that lack of funding, not a poor methodology, is responsible for the lack of results.</li></ul>
III. Plan Update & Maintenance	<ul style="list-style-type: none"><li>■ Revised and Updated Language</li><li>■ The plan was updated to reflect the decisions of the Committee.</li></ul>

Table 6.1: Overview of updates to Chapter 6: Executing the Plan

### Section I **Implementation of the Action Plan**

**A. Administrative Actions:** The meetings, planning process, prioritizing, etc., of the Charlton County HMPUC have been overseen by the Charlton County Emergency Management Agency. The Southern Georgia Regional Commission contracted with the Charlton County Commission to administer and facilitate the planning process. The Charlton County Commission, the City of Folkston, and the City of Homeland will adopt the Plan (on approval by GEMA & FEMA) by the resolution(s) contained in Appendix E Section III

**B. Authority and Responsibility:** The Charlton County Commission (and the City of Folkston and the City of Homeland) have authorized the submission of this Plan to both GEMA and FEMA for approval.

As determined by the Charlton County Commission, the City of Folkston, the City of Homeland, and the Charlton County HMPUC, the Charlton County EMA Director will be responsible for this Plan and its continued usage as a planning document. The EMA Director will oversee implementation, monitoring, and updates for all jurisdictions (Charlton County and the Cities of Folkston and Homeland). In addition, the respective jurisdictions will be responsible for implementing the specific mitigation activities proposed in this plan.

## **C. Prioritization:**

### **1. Methodology for Prioritization:**

In prioritizing the implementation of action steps identified in this plan, the primary consideration will be those hazards that pose the greatest threat. Local governments will consider additional cost and time factors in prioritizing the implementation feasibility of the action steps and projects. Activities requiring little cost and staff time will be given the highest implementation priority. Those steps requiring additional funding for equipment or staff time beyond the typical budgets of the communities will be incorporated into the budget process, when possible, based on the cost-benefit analysis described below.

### **2. Use of Cost-Benefit:**

The data in Worksheet #3A will be utilized to quantify the number of persons and/or property at risk from each hazard. Combined with the criteria in Worksheet #4, local governments can assess the potential value of at-risk properties and the resulting benefits from the proposed action steps.

In prioritizing projects, the local governments will also utilize cost-benefit analysis (CBA) to evaluate the feasibility of a significant undertaking. CBA is a well-established method for quantitatively comparing the benefits and costs of mitigation projects. The result is a Benefit-Cost Ratio (BCR) derived from a project's total net present value of benefits divided by the total project cost estimate, including all documented project and maintenance costs. The benefits of mitigation projects are avoiding damages, disruptions, losses, and casualties. Examples of expected benefits include avoided or reduced damages to buildings, contents, or infrastructure; economic impacts of the loss of function of buildings; displacement costs for temporary quarters; loss of public services; loss of net business income; economic impacts of the loss of function of infrastructure; road or bridge closures; loss of utility services; and deaths and injuries.

### **3. Use of Other Calculations:**

Availability of potential funding sources, overall feasibility, measurable milestones, multiple objectives, and the STAPLEE criteria were additional calculations performed. Those activities requiring smaller amounts of money and staff time are given the highest implementation priority. Those steps requiring additional funding for equipment or staff time beyond the typical budgets of the communities will be incorporated into the budget process, when possible, based on cost-benefit analysis. Higher priority was given to activities that meet multiple objectives and those which meet more of the STAPLEE criteria than others.

#### **4. Use of Other Review Structure:**

In addition to the cost-benefit analysis, other factors that may affect the prioritization of projects include the availability of special tax, grants, and/or loan funds that become available on a limited basis to finance implementation, such as SPLOST funds or FEMA Pre-Disaster Mitigation Program funds.

#### **D. Incorporation of Local PDM Plan into Other Plans/Planning Measures:**

The previous (2013) Hazard Mitigation Plan was incorporated into appropriate planning mechanisms, such as comprehensive planning, by reviewing and analyzing the staff completing the planning mechanisms. In addition, information and action steps from the previous Hazard Mitigation Plan were considered for any relevant decisions by the community. The previous Hazard Mitigation Plan was used for the current update.

This Plan will be reviewed by Charlton County, the City of Folkston, and the City of Homeland. The requirements of this Hazard Mitigation Plan will be taken into consideration. They should be incorporated into Comprehensive Plans, Five-Year Short-Term Work programs, Capital Improvement Plans, Local Emergency Operations Plans, and all other such Plans as appropriate.

Once this plan is approved, it will be used by consultants and planning committees responsible for the update process for the County and City Comprehensive Plans, Five Year Short-Term Work Programs (STWP), Capital Improvement Plans, Local Emergency Operation Plans (LEOP), and other such plans as appropriate.

To facilitate this plan's inclusion, the Charlton County Commission, the City of Folkston, and the City of Homeland will provide a copy of this Plan to the people and/or committees responsible for writing and updating plans.

## **Section II Evaluation, Monitoring & Updating**

#### **A. Method:**

The Charlton County EMA Director will ensure that this plan is monitored and periodically updated in subsequent years. The method that the Charlton EMA will use to monitor the plan and evaluate implementation progress will be the following:

- The Charlton County EMA will conduct quarterly telephone interviews with local governments and area agencies to chart their plan progress.
- The EMA Director will hold formal public meetings at least once a year to monitor the plan implementation progress and allow the public to express concerns, opinions, and ideas.
- A series of informal meetings will be held throughout the year in which various aspects of the plan, including monitoring and evaluation, are discussed.

**B. Criteria Used to Monitor and Evaluated the Plan:**

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, completed, resulting in savings of life, money, and property.

### **Section III**

## **Plan Update and Maintenance**

**A. Public Involvement:**

Because the Hazard Mitigation Plan is intended to help ensure a safe and livable environment for all Charlton County, Folkston, and the City of Homeland residents, public involvement must be an integral part of the planning process.

Since adopting the original Charlton County Pre-Disaster Mitigation Plan, citizens have been kept involved and apprised of plan progress through such forums as regularly scheduled Commissioner meetings, public hearings, and applicable newspaper coverage. This same level of public education and awareness and citizen involvement will continue over the next five years until the next required update of the Hazard Mitigation Plan. Then, when specific issues dictate, public hearings will be conducted. In addition, all other community planning efforts (Comprehensive Plan, Regional Plan, etc.) will allow citizens to participate in and comment on the need to incorporate hazard mitigation initiatives.

To facilitate the goal of continued public involvement in the planning process, the EMA will ensure that the following steps are taken:

- The public will be directly involved in updating and reviewing the plan as the Hazard Mitigation Planning Committee members.
- Copies of the plan will be kept at appropriate agencies throughout Charlton County.
- The plan will be available on City, County, and/or Regional Commission websites. In addition, it will contain an e-mail address and phone number the public can use for submitting comments and concerns about the plan.
- A public meeting will be held annually to provide the public with a forum for expressing concerns, opinions, and ideas. The EMA will set meeting schedules and dates and use County resources to publicize and host this meeting.

**B. Timeframe:**

According to the requirements outlined in the Disaster Mitigation Act of 2000, the community is again required to update and evaluate the plan no more than five years after its adoption. Therefore, at least one year before the end of the five-year update necessary period, the EMA Director will begin the planning process for a new update to this plan. This will consist of establishing a new planning committee tasked with completing the update following the same method used for this update.

No later than the conclusion of the five years following approval of the plan update, the Charlton County EMA Director shall submit a revised Hazard Mitigation Plan to GEMA for its approval. It

is important to note that the plan update process, as established by the planning committee, is subject to change, depending upon subsequent regulations and/or requirements set forth by GEMA and FEMA.

## **Chapter #5:** **Conclusion**

### Summary of changes:

- Revised and updated language.

Charlton County, the City of Folkston, and the City of Homeland have suffered considerable damage in the past from natural hazards. However, planning and undertaking structural and nonstructural action steps can save lives and property before a disaster. This philosophy has been the driving force behind the Charlton County Hazard Mitigation Plan preparation.

Education of the population and enhanced warnings can decrease the vulnerability of the county's citizens and visitors. Therefore, continued and improved public information and communication with the people are essential parts of this plan. Because of this planning process, Charlton County, Folkston, and City of Homeland officials have better understood the natural and man-made hazards affecting our community.

As a result of the planning process described in Chapter 1 and the hazard, risk, and vulnerability assessment in Chapter 2, Charlton County, the City of Folkston, and the City of Homeland have a realistic perspective on the hazards to which the community is exposed. In addition, with the mitigation strategy outlined in Chapter 4, and the implementation plan included in Chapter 6, the local leaders have an "action plan" to follow when allocating resources to reduce their community's vulnerability to such hazards.

### **References**

Charlton County Board of Tax Assessors (<http://www.qpublic.net/ga/charlton/>)

Federal Emergency Management Agency ([www.fema.gov](http://www.fema.gov))

FEMA National Flood Insurance Program Community Status Book  
(<https://www.fema.gov/national-flood-insurance-program-community-status-book>)

Georgia Emergency Management Agency, Georgia Mitigation Information System  
(<https://apps.itos.uga.edu/GEMA.GMIS/>)

Georgia Emergency Management and Homeland Security Agency (<http://www.gema.ga.gov/>)

Georgia Forestry Commission ([www.gatrees.org](http://www.gatrees.org))

National Interagency Fire Center ([www.nifc.gov](http://www.nifc.gov))

National Oceanic and Atmospheric Administration, National Climatic Data Center, Storm Events Database (<http://www.ncdc.noaa.gov/stormevents/>)

Southern Georgia Regional Commission ([www.sgrc.us](http://www.sgrc.us))

U.S. Drought Monitor (<http://droughtmonitor.unl.edu/>)

United States Census Bureau ([www.census.gov](http://www.census.gov))

University of Georgia College of Agriculture and Environmental Sciences. *2019 Farm Gate Value Report*. (<http://caes2.caes.uga.edu/center/caed/pubs/annual.html>)



## **Appendices**

### **Appendix A. Hazard Identification, Risk, and Vulnerability (HRV)**

- I. GEMA Worksheet 3A
- II. GMIS Critical Facilities Maps
- III. Maximum Envelope of Wind maps
- IV. Drought Monitor and Drought map

### **Appendix B. Growth and Development Trends**

- I. Census Demographic Summary
- III. Tax Digests

### **Appendix C. Other Planning Documents**

- I. 2020 Comprehensive Plan Short Term Work Program
- II. Community Wildfire Protection Plan

### **Appendix D. Worksheets Used in Planning Process**

- I. Hazard Frequency Table
- II. GEMA Worksheet #1
- III. GEMA Worksheet #2
- IV. GEMA Worksheet #4

### **Appendix E. Copies of Required Planning Documentation**

- I. Agendas
- II. Public Notices
- III. Sign-in Sheets
- IV. Adoption Resolutions

### **Appendix F. Reports and Inventories**

- I. General Historic Reports
- II. Critical Facilities Inventory

### **Appendix G. HAZUS Report**

