

Atkinson County, Georgia



Hazard Mitigation Plan 2019-2024

Effective 4/16/2019 – 4/16/2024

Including the Cities of Pearson and Willacoochee
This Plan produced for the Atkinson 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

Table of Contents

Chapter 1: Introduction to the Planning Process.....	1
Section I. Purpose and Need, Authority and Statement of Problem	1
Section II. Local Methodology, Plan Update Process, and Participants	3
Section III. Plan Review, Analysis, and Revision	6
Section IV. Organization of the Plan	6
Section V. Local Hazard, Risk, and Vulnerability (HRV) Summary, Local Mitigation Goals, and Objectives	7
Section VI. Multi-Jurisdictional Special Considerations	8
Section VII. Adoption, Implementation, Monitoring, and Evaluation.....	8
Section VIII. Community Data.....	10
Chapter 2: Local Natural Hazard, Risk, And Vulnerability (HRV) Summary	15
Section I. Thunderstorms/Wind.....	16
Section II. Hail.....	20
Section III. Wildfires	23
Section IV. Floods	27
Section V. Drought.....	32
Section VI. Hurricanes/Tropical Storms.....	35
Section VII. Tornadoes.....	39
Section VIII. Severe Winter Storms	43
Chapter 3: Local Human-Caused Hazard, Risk, and Vulnerability (HRV) Summary.....	46
Section I. Cyberattacks	46
Section II. Civil Unrest.....	48
Chapter 4: Local Natural Hazard Mitigation Goals and Objectives	50
Overall Community Mitigation Goals, Policies, and Values Narrative.....	51
Section I. Thunderstorms/Wind.....	54
Section II. Hail.....	56
Section III. Wildfires	58
Section IV. Floods	67
Section V. Drought.....	71
Section VI. Hurricanes/Tropical Storms.....	73
Section VII. Tornadoes.....	78
Section VIII. Severe Winter Storms	81
Chapter 5. Local Human-Caused Hazard Mitigation Goals and Objectives.....	84
Overall Community Mitigation Goals, Policies, and Values Narrative.....	84
Section I. Cyberattacks	85
Section II. Civil Unrest.....	87
Chapter 6: Executing The Plan	90
Section I. Implementation of the Action Plan.....	90
Section II. Evaluation and Monitoring	92
Section III. Plan Update and Maintenance	92
Chapter 7: Conclusion	94
References	95
Appendices	96

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 that have been made.

CHAPTER 1 Section	Updates to Section
I. Purpose, Need, Authority, and Statement of Problem	<ul style="list-style-type: none"> • Language updated to reflect that this was an update to the existing plan
II. Local Methodology, Plan Update Process, and Participants	<ul style="list-style-type: none"> • Planning Committee reviewed each section and updated as necessary
III. Plan Review, Analysis, and Revision	<ul style="list-style-type: none"> • Planning Committee reviewed each section • Updates made using national, state, and local data
IV. Organization of Plan	<ul style="list-style-type: none"> • Consistent with original plan
V. Local Hazard, Risk and Vulnerability (HRV) Summary, Local Mitigation Goals, and Objectives	<ul style="list-style-type: none"> • Updates made using national, state, and local data
VI. Multi-Jurisdictional Special Considerations	<ul style="list-style-type: none"> • No major changes from original plan
VII. Adoption, Implementation, Monitoring, and Evaluation	<ul style="list-style-type: none"> • Evaluation method revised and updated.
VIII. Community Data	<ul style="list-style-type: none"> • Updates made using most recent available national, state, and local data

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 previous Atkinson County Pre-Disaster Mitigation Plan Update, as approved by the Georgia Emergency Management Agency (GEMA) and the Federal Emergency Management Agency (FEMA), which took effect on April 16, 2014 and expires on April 16, 2019.

The purpose of this document is to provide an overview of the hazards that may impact Atkinson County and the Cities of Pearson and Willacoochee, and to outline the community’s plans to mitigate the potential loss of life and damages to property and the economy that could occur with these events. Hazard Mitigation is a means to address and proactively reduce the potential damage that may be caused by natural or man-made disasters.

This Plan is a direct result of research and a planning and public involvement process undertaken by the local government officials and citizens of Atkinson County and the Cities of Pearson and Willacoochee after they formed the Atkinson County Hazard Mitigation Plan Update Committee (hereafter known as the HMPUC). This Plan is the result of their commitment to reduce the risks

of natural hazards and the effects of those natural hazards to their communities. The Cities of Pearson and Willacoochee are the only incorporated cities located in Atkinson County.

Authority for the development of this Plan was given by the Atkinson County Commission as a result of their execution of the Grantee-Subgrantee Agreement for the Atkinson County Hazard Mitigation Grant Program (HMGP) Planning Project; and by the Cities of Pearson and Willacoochee, located within Atkinson County, through their participation in the planning project.

In order to initiate an outreach program to neighboring communities, governments, local and regional agencies, and to agencies authorized to regulate development, business, and the public, two Public Hearing Notices were published in the legal organ of the local newspaper. In addition, e-mail lists of stakeholders were kept updated and those on them were informed of meetings through e-mails, letters, and/or telephone calls. Surrounding county EMA Directors were notified of the plan update and invited to participate in the process. Additionally, several area county Hazard Mitigation Plans were being updated at the same time and an active meeting list was maintained for scheduling purposes.

Planning Division staff from the Southern Georgia Regional Commission, which represents eighteen counties in the region (including Atkinson County), attended the Atkinson County meetings. They participated in all aspects of the planning process and provided a regional perspective in the formation of the multi-jurisdictional Atkinson County and Cities of Pearson and Willacoochee Hazard Mitigation Plan.

Through the above efforts, the multi-jurisdictional Atkinson County and Cities of Pearson and Willacoochee Hazard Mitigation Plan was updated, including a comprehensive range of Mitigation Goals, Objectives, and Action Steps (see Chapter 4) 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 Hazard Mitigation Plan Update encompasses the jurisdictions of Atkinson County and the Cities of Pearson and Willacoochee, located in Southern Georgia. Each of these jurisdictions also participated in the previous Hazard Mitigation Plan update. The Southern Georgia Regional Commission provided technical assistance. A local Hazard Mitigation Plan Update Committee (Atkinson County HMPUC) was formed, and a year-long planning effort was undertaken, the final product of which was a Plan Update containing updated Mitigation Goals, Objectives, and Action Steps to reduce or eliminate the potential for loss of life and damage to property and the economy caused by natural disasters (see Chapter 4).

Potential members of the Atkinson County HMPUC were contacted by telephone or by letter/e-mail concerning their participation on the Committee. Southern Georgia Regional Commission (SGRC) staff provided technical assistance to the Atkinson County HMPUC. The Atkinson County HMPUC was comprised of representatives from Atkinson County and the Cities of Pearson and Willacoochee and also included representatives from other groups and individuals, as shown below, who attended meetings and/or conducted research:

Name	Organization	Title
Darquita Williams	Atkinson County	County Clerk
Gloria Farrell	Atkinson County Board of Commissioners	Commissioner
Nina Lott	Atkinson County Board of Commissioners	County Clerk/Finance
Bob Brown	Atkinson County Board of Education	Superintendent
Mark Ausley	Atkinson County EMA	EMA Director
Tony Barnes	Atkinson County Extension Office	County Extension Coordinator.
Jennifer Brown	Atkinson County Family Connection	Coordinator
Shane Busbee	Atkinson County Fire Department	Fire fighter
Robbie Stone	Atkinson County Fire Department	Chief
Danial Knapik	Atkinson County Sheriff's Office	Chief Deputy
David Moore	Atkinson County Sheriff's Office	Sheriff
Nell Ford	City of Pearson	City Clerk
Bettye Drayton-Williams	City of Pearson	Mayor
Peggy McClelland	City of Willacoochee	City Clerk
Thomas Whitley	Georgia Forestry Commission	Chief Ranger
Matthew Mrizek	Georgia Forestry Commission	Forester
Donna Smeltzer	Health Department	Nurse Manager
Daniel Lavender	USDA/NRCS	Soil Conservation Technician
Sammie Newson	Willacoochee	Mayor
William Gilliard	Willacoochee Police Dept.	Chief

Additional entities and organizations that were invited and informed of the plan update, but did not participate actively in the plan update process, were the following:

- Surrounding counties’ EMAs and Boards of Commissioners (Coffee, Berrien, Lanier, Clinch, and Ware Counties)
- Board of Education

The Committee held the following meetings, the sign-in sheets of which are included in Appendix E:

- Kick-off public hearing – August 23, 2017
- First workshop – September 21, 2017
- Second workshop – November 9, 2017
- Third workshop – December 6, 2017
- Fourth workshop – February 7, 2018
- Final public hearing – September 13, 2018

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

Open discussion was permitted at all public meetings for suggestions and/or comments regarding the plan update. Also, during general question and answer periods, comments (if any) were noted by the Southern Georgia Regional Commission staff and incorporated into the plan as appropriate.

Copies of the previous Plan were made available at each meeting, while relevant chapters and sections under discussion were photocopied and distributed to those in attendance for comments. Outside of the formal meetings, parts of the plan were e-mailed to certain individuals who were unable to attend the meetings, and their comments were sought. Copies of the previous Plan and the draft Plan Update document were also available on the Southern Georgia Regional Commission website and from the local EMA office and city and county government offices.

For the plan update, the Hazard Mitigation Plan Update Committee (HMPUC) used the prior Hazard Mitigation Plan as a basis, reviewing all chapters and sections and updating them as appropriate using national, state, and local data sources. 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 SGRC staff, who then used notes from the workshops to create the new Hazard Mitigation Plan document. 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, information about zoning, and information about community services were updated using the current joint Comprehensive Plan for the County and Cities. Other documents used were the local Emergency Operations Plan, the previous Hazard Mitigation Plan, the State of Georgia Hazard Mitigation Plan, and information from the National Climatic Data Center (NCDC). The State Hazard mitigation plan was consulted to ensure the HMP would be consistent with this plan, and data from the NCDC were used to create the Hazard Frequency Table and associated information regarding each hazard, which can be found in Chapter 2. The County and Cities do not have a Flood Mitigation Assistance Plan or a Flood Insurance Study.

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. The “kick-off” public hearing was advertised in the local newspaper (meeting advertisements and sign-in sheets are provided in Appendix E). A second and final public hearing was held on September 13, 2018 and was advertised in the local newspaper (see Appendix E). Citizens, including staff and members of the HMPUC, were present (see Appendix E). There were no comments. Therefore, there was no need to consider or add public comments.

In addition, an e-mail list of stakeholders was kept up to date, including all the attendees who wrote their e-mail address on the sign-in sheet at each meeting, as well as any other interested parties. Further reminders of meetings were provided as needed through telephone calls and in-person communication.

C. Mission and Vision Statements

The 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.

Atkinson County and the Cities of Pearson and Willacoochee
Hazard Mitigation Plan Update Committee
Mission Statement

This committee’s mission is to make Atkinson County, The City of Pearson, The City of Willacoochee, its citizens, local governments, communities, residences and businesses less vulnerable to the effects of natural 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 state, regional, and local planning activities.

Atkinson County and the Cities of Pearson and Willacoochee
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 way of life for Atkinson County, the City of Pearson, and the City of Willacoochee.

Due to Atkinson County and the Cities of Pearson and Willacoochee being such close-knit communities, the Atkinson County HMPUC chose not to break into subcommittees, but to address issues as a whole group. Various members of this group had direct knowledge relating to local infrastructure and agencies, emergency planning, hazard planning, and the operations of major departments and emergency services. Through their efforts, this Plan was developed.

The HMPUC was responsible for identifying natural hazard events and completing a profile, vulnerability assessment, potential loss estimation (see Chapter 2, Appendix A, and Appendix D), and updating the Georgia Mitigation Information System (GMIS) Critical Facilities Inventory (see Appendix F). They were also responsible for reviewing and updating the Mitigation Goals, Objectives, and Action Steps (see Chapter 4), among other responsibilities.

Section III. Plan Review, Analysis, and Revision

As mentioned above, the prior Hazard Mitigation Plan was used as a basis for the plan update. The Hazard Mitigation Plan Update Committee (HMPUC) reviewed all chapters and sections of the prior plan and updated them as appropriate, using national, state, and local sources. Other documents consulted included:

- The Community Wildfire Protection Plan (see Appendix C)
- The current joint Comprehensive Plan for the County and Cities, which includes the five-year Community Work Program
- The Local Emergency Operations Plan
- The current State of Georgia Hazard Mitigation Strategy
- The local Service Delivery Strategy
- Data from the National Climatic Data Center (NCDC).

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

All chapters of this Plan have been updated to reflect the new material. See the tables at the beginnings of the chapters for further information regarding which items were changed and updated.

Section IV. Organization of the Plan

This Plan focuses on eight natural hazards chosen by the HMPUC that may affect and cause damage to Atkinson County and the Cities of Pearson and Willacoochee. Chapter 2, Chapter 4, and Appendix A are each subdivided into Sections I through VIII; these sections reflect the 8 natural hazards that were chosen. The natural hazards are as follows (in order of priority):

1. Thunderstorm/Wind
2. Hail
3. Wildfire
4. Flood
5. Drought
6. Hurricane/Tropical Storm

7. Tornado
8. Severe Winter Storm

Other hazards, such as Avalanche, Coastal Erosion, Coastal Storm, Dam Failure, Earthquake, Expansive Soils, Extreme Heat, Land Slide, SLOSH (Sea, Lake and Overland Surges from Hurricanes), Tsunami, and Volcano, were examined and determined not to be of sufficient significance in the community to warrant their inclusion in the present Hazard Mitigation Planning effort, based on past history and available data.

This Plan also contains a HAZUS report (see Appendix G), a comprehensive range of Mitigation Goals, Objectives, and Action Steps (Chapter 4), and information on implementation, monitoring, and plan update and maintenance (see Chapter 6), as well as other FEMA-required items and materials (included in various Chapters, Sections and Appendices).

Throughout the effective time period of this Plan, the County Commissioners and City Council Members will assign staff, as appropriate, to implement the comprehensive range of Mitigation Goals, Objectives, and Action Steps and other pertinent items that are contained in this Plan.

The Atkinson County and Cities of Pearson and Willacoochee Hazard Mitigation Plan exists in one bound volume appended with various papers and documents, as well as a PDF document that is available on the SGRC website. The planning efforts of Atkinson County and the Cities of Pearson and Willacoochee are intended to be an ongoing process and the Plan is to be amended as appropriate.

This Plan was prepared for:
Atkinson County Board of Commissioners
P.O. Box 518
Pearson, GA 31642
Telephone: (229) 422-3391
E-mail: atcoema@atkinson-ga.org

This Plan was prepared by:
Southern Georgia Regional Commission
327 West Savannah Avenue
Valdosta, Georgia 31601
Voice: (229) 333-5277 Fax: (229) 333-5312
agodwin@sgrc.us

Copies of the Plan are on file and may be examined at the County and City government offices, the County Emergency Management Agency, the Southern Georgia Regional Commission office (as well as the SGRC website, www.sgrc.us), and the Georgia Emergency Management and Homeland Security Agency (GEMHSA).

Section V. Local Hazard, Risk, and Vulnerability (HRV) Summary, Local Mitigation Goals, and Objectives

The HMPUC determined that the hazards established in the previous plan were still the most significant threats to the community, and their order of priority remains unchanged. A Hazard, Risk, and Vulnerability (HRV) Assessment has been formulated through a variety of information obtained during the planning process. Information has been obtained from online databases, published sources, and personal accounts regarding hazards, their history in the community, and when and where they were active. This summary is provided in Chapter 2.

The vulnerability of the community to natural hazards is also summarized in the Hazard Frequency Table (see Appendix D), and the Inventory of Assets and number of people exposed to each hazard is evaluated in GEMA Worksheet 3A (see Appendix A). Critical Facilities and Critical Infrastructure are also examined as to the present value and potential losses from natural hazards (see Appendix F).

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, with identifiable comprehensive ranges for each jurisdiction) is included in Chapter 4, Sections I-VII. In Chapter 6, Section I, there is a description related to 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. Also in Chapter 6, there are sections on Implementing the Action Plan (see Section I), Evaluation, Monitoring, Updating (see Section II), and Plan Update and Maintenance (see Section III).

Section VI. Multi-Jurisdictional Special Considerations

Atkinson County has a total area of 339.38 square miles with a population density of 24.7 people per square mile (US Census data, 2010). As such, certain services, including emergency services, may have large distances to cover when responding to an event, which may negatively influence emergency response times and strain resources. Atkinson County contains two incorporated cities: Pearson (the county seat) and Willacoochee.

The consolidated Atkinson County Fire Department serves the County and the two Cities. There are 7 fire stations in the County, all with an ISO Class of 6X. One fire station is manned by paid firefighters, and the others are staffed by volunteer firefighters.

Section VII. Adoption, Implementation, Monitoring, and Evaluation

After all plan development workshops were concluded, the draft plan was submitted to all local governments for their review. The draft plan was then submitted to GEMA and FEMA for their review and approval. After their approval, and any recommended changes, a second and final public hearing was held on September 13, 2018 in order to provide a further opportunity for public comment and review. After this final public hearing, resolutions adopting the plan were passed by the local governments on September 13, 2018 (Atkinson County), October 1, 2018 (City of Willacoochee), and October 9, 2018 (City of Pearson), adopting the Plan Update. 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 to do so.

All sections of the Plan will be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals Objectives and Action Steps will be reported to the public through appropriate means (TV, website, social media, local newspapers, City Council meetings, County Commission meetings, etc.).

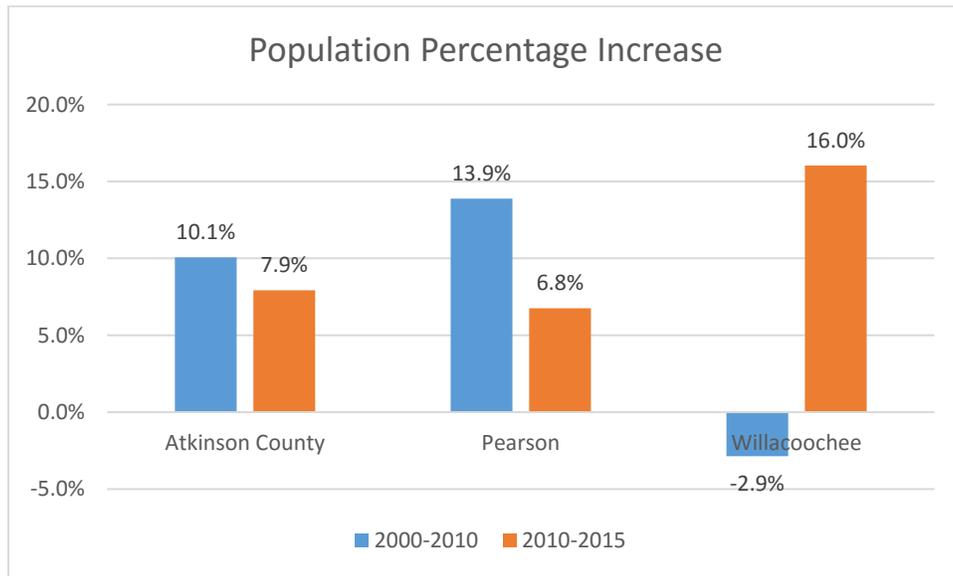
The method that the County EMA will use to monitor the plan will be to conduct quarterly telephone interviews with the various local governments and area agencies in order to chart their plan progress. Also, throughout the year, a series of informal meetings will be held in which various aspects of the plan are discussed. In addition, annual evaluations of the plan will take place on or near the anniversary of the date of Plan adoption. The annual evaluation 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 current resources are appropriate for implementing the plan; and whether agencies and other parties have participates as originally 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 necessary) 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 itself, these will also be discussed and noted. Critical Facilities and infrastructure changes and updates will also be discussed at this time and then added to the online GEMA database as required. New hazards in the area (if any) will be discussed and planned for and an assessment made as to whether community needs dictate additions to the materials of the plan.

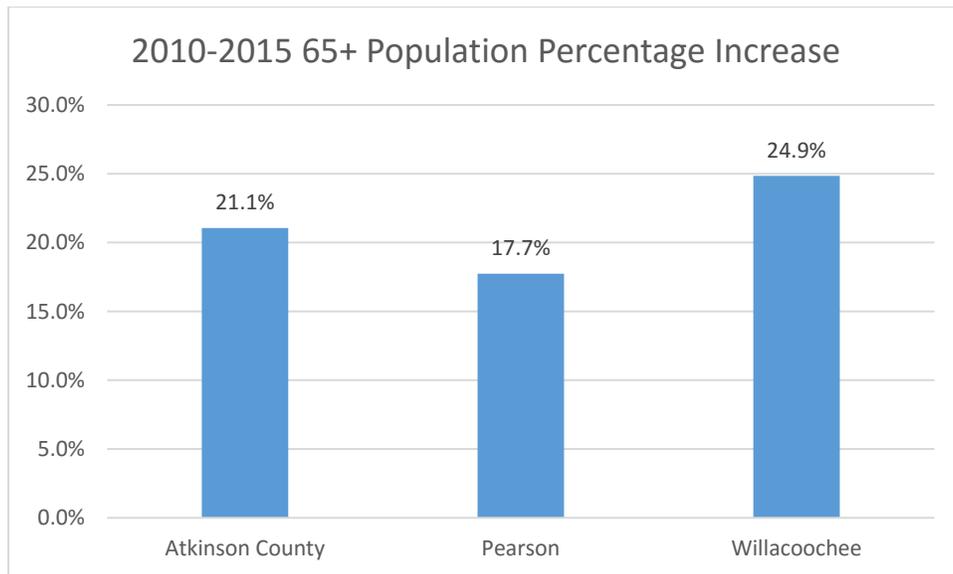
The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

The Plan will be updated by the EMA Director and chosen representatives of all of the local governments every five years, as required by FEMA. All sections of this Plan will be updated at that time. The Plan update will be reviewed by all jurisdictions and relevant stakeholders. The requirements of this Hazard Mitigation Plan will be taken into consideration 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 comment solicited and incorporated as necessary and as appropriate.

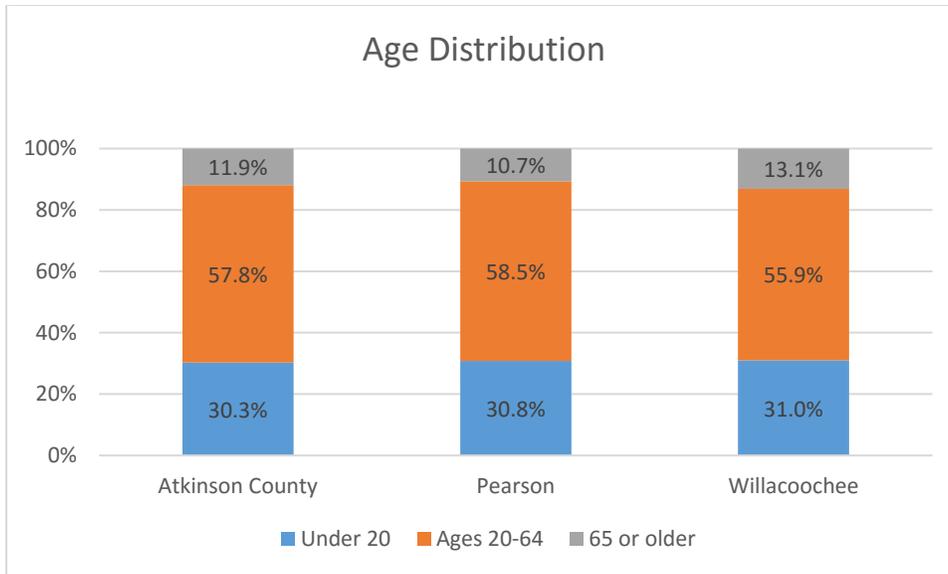
Section VIII. Community Data



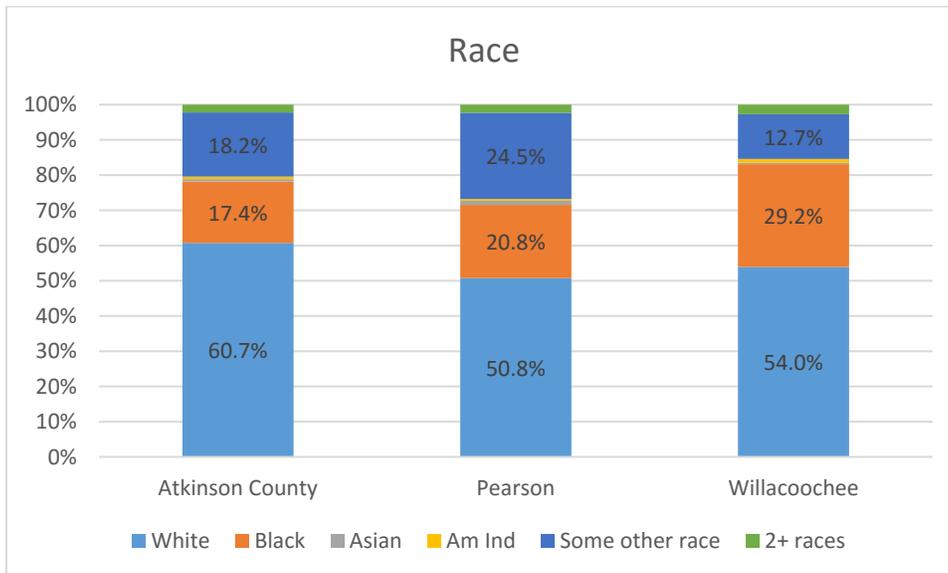
The 2015 population of Atkinson County (the most recent figure currently available) is estimated at 9,039, a 7.9% increase since 2010. The 2015 population of Pearson is estimated at 2,260, a 6.8% increase since 2010. The 2015 population of Willacoochee is 1,614, a 16.0% increase since 2010. The County and the City of Pearson gained population from 2000 to 2010 (10.1% for Atkinson County, 13.9% for the City of Pearson), while the City of Willacoochee's population decreased by 2.9%.



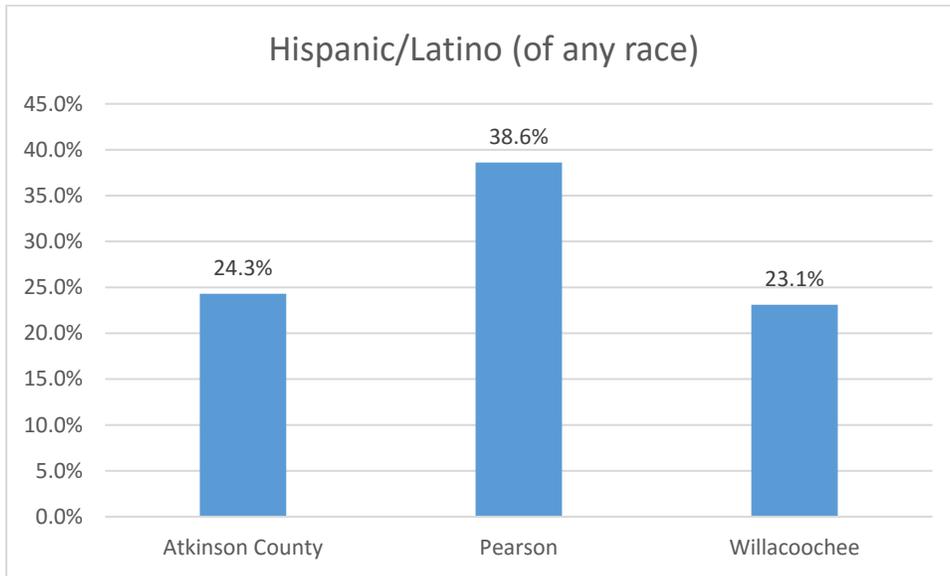
Since 2010, the percentage of the population aged 65 and older has increased substantially in Atkinson County (21.1%), the City of Pearson (17.7%), and the City of Willacoochee (24.9%).



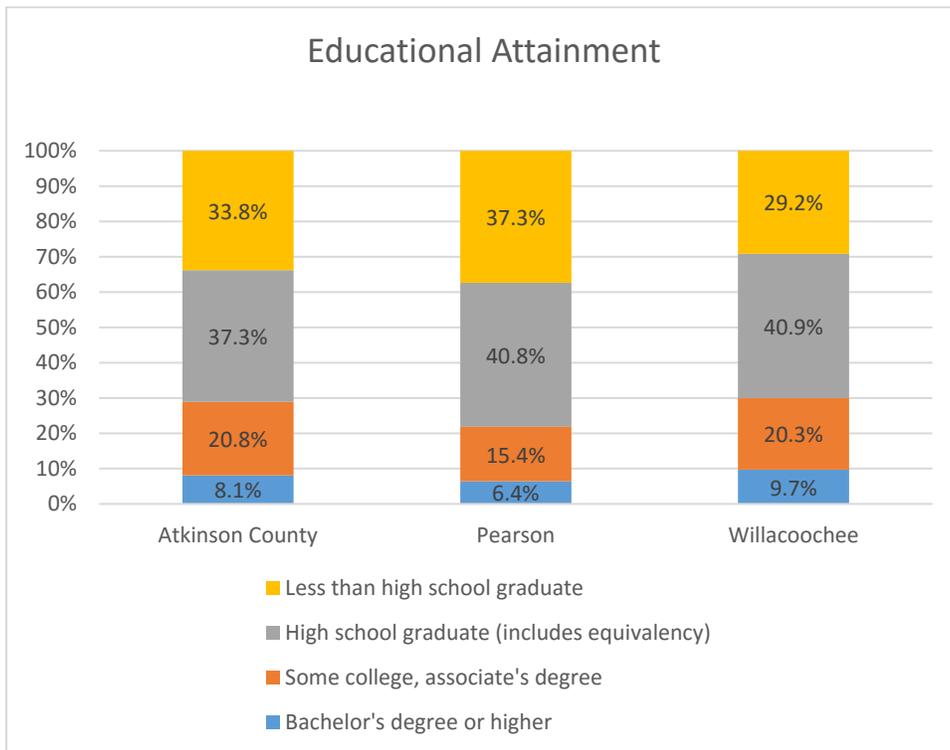
According to 2015 estimates, the age distribution in Atkinson County is 11.9% over 65, 57.8% ages 20-64, and 30.3% under 20. In the City of Pearson, the age distribution is 10.7% over 65, 58.5% ages 20-64, and 30.8% under 20. In the City of Willacoochee, the age distribution is 13.1% over 65, 55.9% ages 20-64, and 31.0% under 20. Atkinson County’s population is 49.4% female and 50.6% male, the City of Pearson’s population is 49.5% female and 50.5% male, and the City of Willacoochee’s population is 50.8% female and 49.2% male.



The population of Atkinson County is 60.7% White/Caucasian, 17.4% Black/African American, 18.2% some other race, 2.2% two or more races, 0.7% Asian, and 0.7% Native American. The City of Pearson’s population is 50.8% White/Caucasian, 20.8% Black/African American, 24.5% some other race, 2.3% two or more races, 1.2% Asian, and 0.5% Native American. The City of Willacoochee’s population is 54.0% White/Caucasian, 29.2% Black/African American, 12.7% some other race, 2.7% two or more races, 0.4% Asian, and 1.1% Native American.

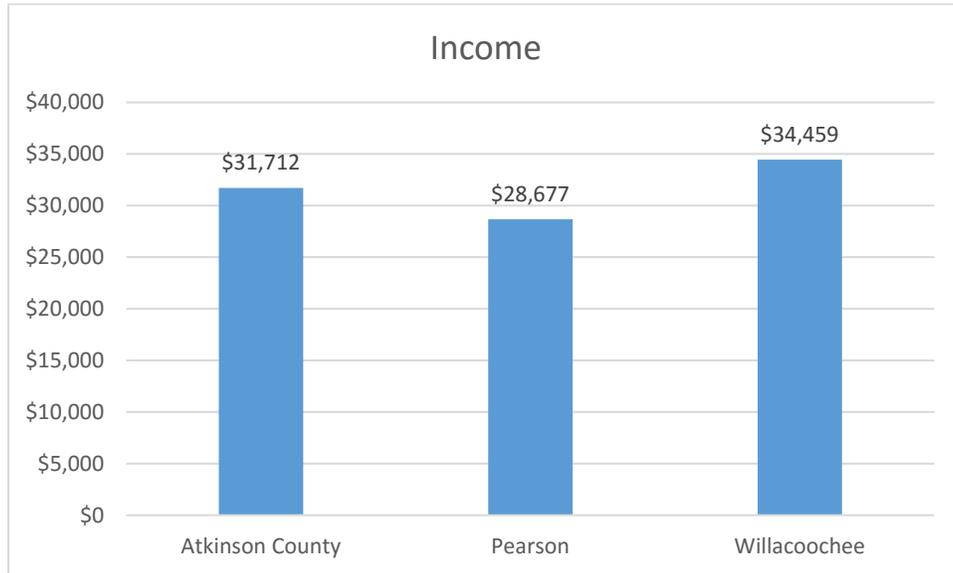


Atkinson County’s population is 24.3% Hispanic/Latino (of any race), the City of Pearson’s population is 38.6% Hispanic/Latino, and the City of Willacoochee’s population is 23.1% Hispanic/Latino.



Among persons aged 25 or older, in Atkinson County, 33.8% have no high school diploma, 37.3% are high school graduates (includes equivalency) with no further education, 20.8% have an associate’s degree or some college, and 8.1% have a bachelor’s or higher degree. Among

persons aged 25 or older in the City of Pearson, 37.3% have no high school diploma, 40.8% are high school graduates (includes equivalency) with no further education, 15.4% have an associate’s degree or some college, and 6.4% have a bachelor’s or higher degree. Among persons aged 25 or older in the City of Willacoochee, 29.2% have no high school diploma, 40.9% are high school graduates (includes equivalency) with no further education, 20.3% have an associate’s degree or some college, and 9.7% have a bachelor’s or higher degree.



The median household income in Atkinson County is \$31.712, the median household income in the City of Pearson is \$28.677, and the median household income in the City of Willacoochee is \$34.459.

An estimated 28.7% of Atkinson County’s population, 31.4% of the City of Pearson’s population, and 44.2% of the City of Willacoochee’s population live below the federal poverty level. In Atkinson County, 38.3% of persons under age 18 live below the poverty level, in the City of Pearson 40.1% of persons under age 18 live below the poverty level, and in the City of Willacoochee 66.5% of persons under age 18 live below the poverty level.

Atkinson County’s estimated unemployment rate is 7.3%, the City of Pearson’s unemployment rate is 8.7%, and the City of Willacoochee’s unemployment rate is 7.5%. Among adults aged 16 and older, the rate of labor force participation is 59.2% in Atkinson County, 60.6% in the City of Pearson, and 56.6% in the City of Willacoochee.

Data source: U.S. Census Bureau (www.census.gov)



[Home](#) - [Community Profile](#) - [Demographics](#) - [Economy](#) - [Government](#) - [Sources](#)

:: Atkinson County ::

Community Profile

County Formed August 15, 1917

County Seat Pearson

Incorporated Cities Pearson and Willacoochee

Total Area 344.593233 square miles

History From its county population in 2000 of 7609 to its current population estimate of 8223, the county has experienced a growth change of 614.

Atkinson County is named for William Y. Atkinson, Georgia's governor in the late 1890s, the county was created in 1917 from parts of Clinch and Coffee counties.

Early industry in Atkinson County depended on the pine forests covering much of the land. Logging operations used the Satilla River to float timber to the coast. Later, farming (tobacco, corn, and poultry) displaced logging as the central economic activity.

Pearson, was named to honor Benjah Pearson who served in the Indian War of 1838.

Points of Interest Completed in 1920, the courthouse in Atkinson County is located in Pearson, the county seat. Built in a Neoclassical Revival style, the courthouse was renovated during the early 1980s.

This painting depicts McCranie's Turpentine Still, which operated from 1925 to 1949 in Willacoochee. The still is listed on the National Register of Historic Places.

County <http://www.atkinsonga.org/>

Additional County Info <http://www.georgiaplanning.com/CountyPortal/countyportal.asp?FIPS=13003>



Willacoochee Library

Source: Georgia Department of Community Affairs, Georgia County Snapshots (<http://www.dca.state.ga.us/countysnapshotsnet/>).

Chapter 2: Local Natural Hazard, Risk, And Vulnerability (HRV) Summary

Summary of changes:

During the plan update process, the HMPUC reviewed the hazards that may affect the community, and their priority. This updated plan includes the same seven natural hazards that were included in the previous plan, in the same order of priority. Table 2.1 provides a brief description of each section in this chapter and a summary of changes that have been made.

Chapter 2 Section	Updates to Section
I. Thunderstorms/Wind	Updated data and information; edited for clarity
II. Hail	Updated data and information; edited for clarity
III. Wildfires	Updated data and information; edited for clarity
IV. Floods	Updated data and information; edited for clarity
V. Drought	Updated data and information; edited for clarity
VI. Hurricanes/Tropical Storms	Updated data and information; edited for clarity
VII. Tornadoes	Updated data and information; edited for clarity
VIII. Severe Winter Storms	Updated data and information; edited for clarity

Table 2.1: Overview of updates to Chapter 2

Six of these hazards constitute an equal threat to all geographic areas of the community. The remaining two, flood and wildfire, are the only hazards for which the level of risk varies geographically within the county. Flood is are limited to somewhat smaller areas, and wildfire risk levels vary (see Chapter 2 and Appendix A).

Other hazards, such as Avalanche, Coastal Erosion, Coastal Storm, Dam Failure, Earthquake, Expansive Soils, Extreme Heat, Land Slide, SLOSH (Sea, Lake and Overland Surges from Hurricanes), Tsunami, and Volcano, were examined and determined not to be of sufficient significance in the community to warrant their inclusion in the present Hazard Mitigation Planning effort, based on past history and available data.

Section I. Thunderstorms/Wind

A. Identification of Hazard

The threat of thunderstorms and wind has been chosen by the Atkinson County HMPUC as the most likely hazard to occur and cause damage in Atkinson County and the Cities of Pearson and Willacoochee, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events.

Thunderstorms are one of the most common weather products of our atmosphere and should not be underestimated. They can cause serious injury, substantial property damage, and even death. Dangers associated with thunderstorms include lightning, hail, heavy rain, flooding, and strong winds. Wind speeds in a thunderstorm can exceed 100 mph and can be as damaging as a tornado. Lightning associated with these events may be one of the leading causes of wildfire in Atkinson County. Lightning can also occur even if it is not raining.

Thunderstorms are defined by NOAA as rain showers during which thunder is heard. The following are some of the most common thunderstorms types:

(Source: <http://www.nssl.noaa.gov/education/svrwx101/thunderstorms/types/>)

- **Single-cell thunderstorms**, often called “popcorn” convection, are small, brief, weak storms that grow and die within an hour or so. They are typically driven by heating on a summer afternoon. Single-cell storms may produce brief heavy rain and lightning.
- A **multi-cell storm** is a common type of thunderstorm in which new updrafts form along the leading edge of rain-cooled air (the gust front). Individual cells usually last 30 to 60 minutes, while the system as a whole may last for many hours. Multicell storms may produce hail, strong winds, brief tornadoes, and/or flooding.
- A **squall line** is a group of storms arranged in a line, often accompanied by “squalls” of high wind and heavy rain. Squall lines tend to pass quickly and are less prone to produce tornadoes than are supercells. They can be hundreds of miles long but are typically only 10 or 20 miles wide.
- A **supercell** is a long-lived (greater than 1 hour) and highly organized storm feeding off an updraft (a rising current of air) that is tilted and rotating. This rotating updraft - as large as 10 miles in diameter and up to 50,000 feet tall - can be present as much as 20 to 60 minutes before a tornado forms. Scientists call this rotation a mesocyclone when it is detected by Doppler radar. The tornado is a very small extension of this larger rotation. Most large and violent tornadoes come from supercells.

Wind is categorized, according to its strength and severity, 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. (Source: <http://www.spc.noaa.gov/faq/tornado/beaufort.html>)

Beaufort Wind Scale

Force	Wind (Knots)	Wind (Mph)	World Meteorological Organization (WMO) Classification	Appearance of Wind Effects	
				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	1-3	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	4-7	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 13-19 ft, white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	39-46	Gale	Moderately high (18-25 ft) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Twigs breaking off trees, generally impedes progress
9	41-47	47-54	Strong Gale	High waves (23-32 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 (29-41 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 (37-52 ft) waves, foam patches cover sea, visibility more reduced	Very rarely experienced; accompanied by widespread damage.
12	64+	73+	Hurricane	Air filled with foam, waves over 45 ft, sea completely white with driving spray, visibility greatly reduced	Devastation.

B. Profile of Events, Frequency of Occurrences, Probability

According to the NOAA Storm Events Database (see Appendix F), there are 86 reports of Thunderstorm/Wind events occurring in Atkinson County (including the Cities) between 01/01/1950 and 12/31/2017. The Historic Recurrence Interval is 0.79 years. This is a 126.47% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 4.0, the past 20-year frequency is 3.75, and the past 50-year frequency is 1.72 (see the Hazard Frequency Table in Appendix D).

Since the previous Hazard Mitigation Plan became effective, 15 Thunderstorm/Wind events have occurred. One example is a severe storm that occurred on June 17, 2015. A chicken house roof was blown off and spread into a field and an awning next to a mobile home was lifted up and the steel leg penetrated into the mobile home.

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

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are equally vulnerable to this hazard.

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive

planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Thunderstorm/Wind events are usually area-wide, and no difference in severity is expected between Atkinson County and the Cities of Pearson and Willacoochee. 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.

Atkinson County and the City of Pearson are members of the National Flood Insurance Program; the City of Willacoochee is not (source: <https://www.fema.gov/cis/GA.html>). Atkinson County and the Cities of Pearson and Willacoochee do not participate in the Community Rating System (CRS) program. As of 2017, they were not eligible, according to FEMA (source: <http://www.fema.gov/library/viewRecord.do?id=3629>).

G. Overall HRV Summary of Events And Their Impact

Thunderstorm/wind events can cause damage at any place, at any time, throughout Atkinson County and the Cities of Pearson and Willacoochee, especially during thunderstorms. Where lightning strikes cannot be predicted and residents may not have time to seek shelter. The cost of the damage and potential loss of life may be higher if the event strikes populated areas as opposed to more sparsely populated or unpopulated areas.

The HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section II. Hail

A. Identification of Hazard

The threat of hail has been chosen by the Atkinson County HMPUC as the second most likely hazard to occur and cause damage in Atkinson County and the Cities of Pearson and Willacoochee, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events.

Hail is a form of precipitation that occurs when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere, where they freeze into balls of ice. Hail can damage aircraft, homes and cars, and can be deadly to livestock and people. Hail is usually pea-sized to marble-sized, but big thunderstorms can produce big hail.

Hail size is estimated by comparing it to a known object. Most hail storms are made up of a mix of sizes, and only the very largest hail stones pose serious risk to people caught in the open. The following are some common size measurements.

(Source: <http://www.nssl.noaa.gov/education/svrwx101/hail/>):

- Pea = 1/4 inch diameter
- Marble/mothball = 1/2 inch diameter
- Dime/Penny = 3/4 inch diameter
- Nickel = 7/8 inch
- Quarter = 1 inch — hail quarter size or larger is considered severe
- Ping-Pong Ball = 1 1/2 inch
- Golf Ball = 1 3/4 inches
- Tennis Ball = 2 1/2 inches
- Baseball = 2 3/4 inches
- Tea cup = 3 inches
- Grapefruit = 4 inches
- Softball = 4 1/2 inches

B. Profile of Events, Frequency of Occurrences, Probability

According to the NOAA Storm Events Database (see Appendix F), there are 26 reports of Hail events occurring in Atkinson County (including the Cities) between 01/01/1950 and 12/31/2017. The Historic Recurrence Interval is 2.62 years. This is a 38.24% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.4, the past 20-year frequency is 1.0, and the past 50-year frequency is 0.52 (see the Hazard Frequency Table in Appendix D).

Hail events have, in past, affected all jurisdictions in the community (unincorporated Atkinson County and the Cities of Pearson and Willacoochee). Most recently, on March 23, 2013, golf ball size hail was reported in the City of Willacoochee along with widespread wind damage. An earlier

storm on June 2, 2008 brought penny-size hail to the City of Pearson. The unincorporated community of Axson saw quarter-size hail during a storm on July 3, 2012.

According to the best data available, since the previous Hazard Mitigation Plan became effective, no Hail events have been recorded.

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

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are equally vulnerable to this hazard.

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Hail events are usually area-wide, and no difference in severity is expected between Atkinson County and the Cities of Pearson and Willacoochee. However, the impact may be more severe in places with higher population density due to more people being in danger, more people needing to

evacuated, more debris from damaged buildings, and other impacts associated with higher population density.

G. Overall HRV Summary of Events And Their Impact

Hail events can cause damage at any place, at any time, throughout Atkinson County and the Cities of Pearson and Willacoochee, especially during thunderstorms. The cost of the damage may be higher if the event strikes populated areas as opposed to more sparsely populated or unpopulated areas.

The HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section III. Wildfires

A. Identification of Hazard

The threat of wildfire has been chosen by the HMPUC as the third most likely hazard to occur and cause damage in the community, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center and Georgia Forestry Commission (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events.

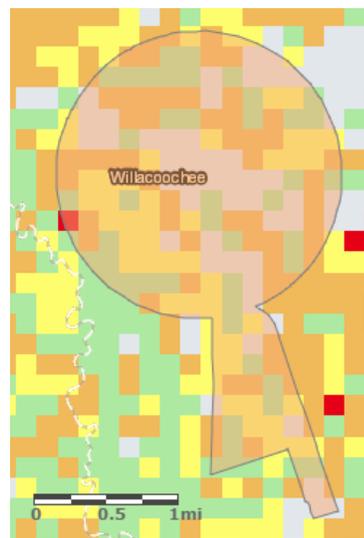
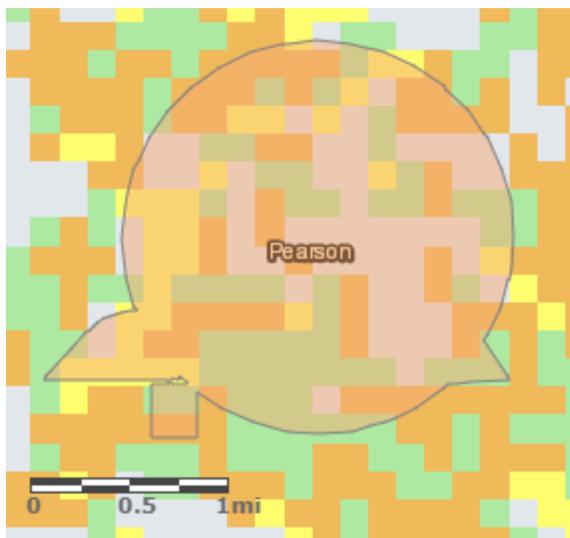
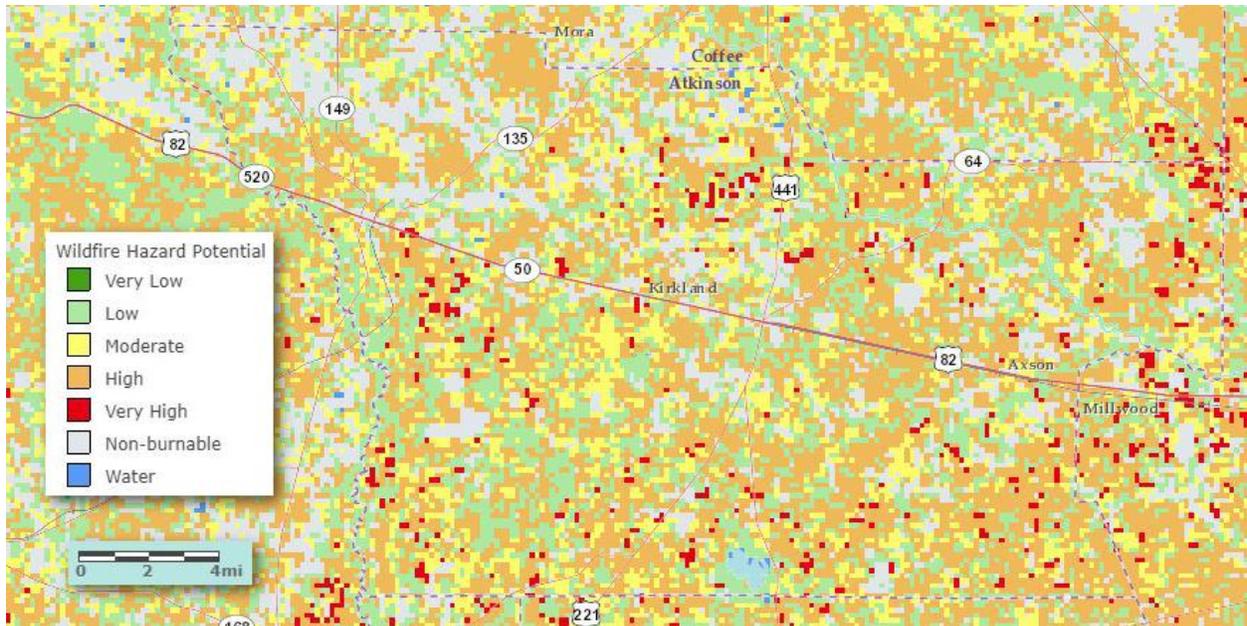
Much of southern Georgia is covered by forests, and fires play an important role in the health of forest ecosystems by breaking down organic matter into soil nutrients and helping seeds to germinate (source: NASA, https://earthobservatory.nasa.gov/Features/GlobalFire/fire_2.php). When naturally occurring wildfires are suppressed, combustible fuel (such as dead leaves and branches) accumulates in the forest. This increases the risk of larger, more destructive fire events in the future. Controlled, prescribed fires lower the risk of larger fire events and are beneficial to forest health (source: USDA, <https://www.fs.usda.gov/detail/dbnf/home/?cid=stelprdb5281464>).

Low humidity, lack of recent precipitation (or drought conditions), wind speed, and temperature are a combination of weather conditions that favor the kindling and spread of wildfires. A high fuel load (i.e. the accumulation of dead vegetation), in combination with the above, also provides for the kindling and spread of wildfires. Much of Atkinson County, including some areas near the Cities, is forested with commercial and free-growing pine trees and other trees. These trees can and do catch fire frequently in both small and large fire events.

According to NASA (<https://earthobservatory.nasa.gov/IOTD/view.php?id=89757>), an estimated 84 percent of wildfires are caused by humans. Some common ways that people start fires include discarding cigarettes, leaving campfires unattended, and losing control of prescribed burns or crop fires. Sparks from railroads and power lines, as well as arson, also routinely cause wildfires.

When a residential area, whether it be a single home or an entire subdivision, is adjacent to an area containing vegetative fuels, such as a forest or other wooded area, this is referred to as a Wildland-Urban Interface area (WUI). These are the areas at greatest risk for property damage due to Wildfire.

Atkinson County and the Cities of Pearson and Willacoochee are all vulnerable to the effects of wildfires. The USDA Forest Service assigns areas a Wildfire Hazard Potential (WHP) score of Very Low, Low, Moderate, High, or Very High. As the map below shows, most of Atkinson County is scored either Low, Moderate, High, or Non-burnable, with small scattered areas that are rated Very High.



Data Source: USDA Forest Service and Fire Modeling Institute
<https://www.arcgis.com/home/item.html?id=f291ac4840984de5a0cf842d8d7a0973>

B. Profile of Events, Frequency of Occurrences, Probability

According to Georgia Forestry Commission data (see Appendix F), there are 2,673 reports of wildfires occurring in Atkinson County (including the Cities) between 01/01/1967 and 12/31/2017. The Historic Recurrence Interval is 0.02 years. This is a 5,346% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 30.5, the past 20-year frequency is 49.15, and the past 50-year frequency is 53.46 (see the Hazard Frequency Table in Appendix D).

Wildfires have, in past, severely affected all jurisdictions in the community (unincorporated Atkinson County and the Cities of Pearson and Willacoochee). For example, in May 2007, a wildfire in the Roundabout Swamp area burned 5,857 acres within Atkinson County.

Since the previous Hazard Mitigation Plan was completed, 116 wildfire events have been recorded.

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

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are vulnerable to this hazard. Although some areas are rated non-burnable, a severe wildfire could spread and potentially affect any part of the community.

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Wildfires may happen at any place at any time, but are more likely in forested areas. Unincorporated Atkinson County is the only jurisdiction that has any significant portion of land rated "Very High" for Wildfire Hazard Potential. The impact of a wildfire would be more severe in places with higher population density due to more people being in danger and more potential

for destruction of homes and other buildings. In jurisdictions without zoning, land use incompatibilities may exist that render certain areas more vulnerable to the effects of wildfires and other hazards.

The consolidated Atkinson County Fire Department serves the County and the two Cities. There are 7 fire stations in the County, all with an ISO Class of 6X. One fire station is manned by paid firefighters, and the others are staffed by volunteer firefighters.

G. Overall HRV Summary of Events And Their Impact

Wildfires have the potential to cause damage at any place, at any time, throughout Atkinson County and the Cities of Pearson and Willacoochee. They can spread quickly and residents may not have time to evacuate. The cost of the damage and potential loss of life may be higher if the event strikes populated areas as opposed to more sparsely populated or unpopulated areas.

The HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section IV. Floods

A. Identification of Hazard

The threat of a flood has been chosen by the HMPUC as the fourth most likely hazard to occur and cause damage in the community, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events. For further information, see the HAZUS Report in Appendix G.

Floods may occur at any time, in many cases without warning, and their effects can range from minor inconvenience to wholesale destruction. Floods are most often caused by heavy rains associated with thunderstorms, hurricanes, or tropical storms. Flooding can result from a rise in the level of a body of water such as a river or a lake, or from rain falling faster than it can be absorbed by the ground (especially under weather conditions that make soil less pervious, for example after a period of drought). Flooding frequently occurs in urban areas when a large amount of rain, above the capacity of the urban drainage system, falls on impervious surfaces such as streets, buildings, and parking lots. Flooding can also result from the failure of man-made structures such as levees and dams.

Flash floods are floods that occur in short time-spans, often so quickly that people are caught off-guard. Flash floods can occur as a result of any of the causes mentioned above, but are most often due to extremely heavy rainfall from thunderstorms. More information is available at the National Weather Service (<https://www.weather.gov/phi/FlashFloodingDefinition>).

According to the National Weather Service (<http://tadd.weather.gov/>), more deaths occur each year due to flooding than from any other thunderstorm-related hazard. The Centers for Disease Control and Prevention report that over half of all flood-related drownings occur when a vehicle is driven into hazardous flood water. The next highest percentage of flood-related deaths is due to walking into or near flood waters. People underestimate the force and power of water. Many of the deaths occur in automobiles as they are swept downstream. Of these drownings, many are preventable, but too many people continue to drive around the barriers that warn you the road is flooded. A mere 6 inches of fast-moving flood water can knock over an adult. It takes just 12 inches of rushing water to carry away a small car, while 2 feet of rushing water can carry away most vehicles. It is never safe to drive or walk into flood waters.

Flood zones, as defined by FEMA, are described in the table below.

Flood Zone Designations and Descriptions

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

Zone Designations	Zone Descriptions
A	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, no depths or base flood elevations are shown within these zones.
AH	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.
AO	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.
A1-A30	These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
A99	Areas with a 1% annual chance of flooding that 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.
AE	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
AR	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 the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.
V	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.
V1-V30	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.
VE	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	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 flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
C	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level.
D	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.
X Shaded	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 flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
X Unshaded	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level.

Atkinson County and the Cities of Pearson and Willacoochee are all vulnerable to the effects of flooding. Areas within flood zones are naturally more vulnerable. For more information, see the maps in Appendix A.

B. Profile of Events, Frequency of Occurrences, Probability

According to the NOAA Storm Events Database (see Appendix F), there are 6 reports of floods occurring in Atkinson County (including the Cities) between 01/01/1950 and 12/31/2017. The Historic Recurrence Interval is 11.33 years. This is a 8.82% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.1, the past 20-year frequency is 0.3, and the past 50-year frequency is 0.12 (see the Hazard Frequency Table in Appendix D).

In past, flooding in the community has been severe. The historic crest of the Satilla River, on Sept. 1, 1929, was 27.20 feet. More recently, a flood event on April 2, 2009 caused numerous roads to be closed and several homes having water entering them around the unincorporated community of Gastons Still; a voluntary evacuation program was put into place, and the Puddin Creek bridge and an adjacent 1 mile stretch of road were temporarily closed due to flooding. An earlier prolonged flood event, during March 1998, caused an estimated \$100,000 in damage and more than 200 homes were damaged.

Satilla River At Atkinson (ATKG1)

[Return to Top](#)

NOTE: River forecasts for this location take into account past precipitation and the precipitation amounts expected approximately 48 hours into the future from the forecast issuance time.

Flood Stage: 13 Feet Latest Stage: 5.77

Current Warnings/Statements/Advisories: None currently.

[Complete information about the Satilla River at Atkinson available from NWS Jacksonville, FL](#)

Reliability of the Forecast:
Based on unobstructed flow
NOTE: Forecasts for the Satilla River at Atkinson are issued as needed during times of high water, but are not routinely available.

Flood Categories (in feet)	Historic Crests	Recent Crests
Major Flood Stage: 22	(1) 27.20 ft on 09/01/1929	(1) 16.07 ft on 09/17/2017
Moderate Flood Stage: 19	(2) 23.90 ft on 04/06/1948	(2) 17.05 ft on 01/30/2017
Flood Stage: 13	(3) 22.89 ft on 04/07/2009	(3) 16.29 ft on 04/09/2016
Action Stage: 11	(4) 21.26 ft on 03/09/1991	(4) 17.39 ft on 02/12/2016
Low Stage (in feet): 4.5	(5) 20.60 ft on 02/03/1991	(5) 13.25 ft on 04/27/2015
	(6) 20.48 ft on 02/15/1986	(6) 14.97 ft on 03/08/2015
	(7) 20.12 ft on 03/12/1984	(7) 13.93 ft on 02/03/2015
	(8) 19.80 ft on 10/03/1953	(8) 16.32 ft on 01/01/2015
	(9) 19.60 ft on 09/05/1949	(9) 17.10 ft on 04/25/2014
	(10) 19.40 ft on 03/08/1964	(10) 15.79 ft on 04/16/2014
	Show More Historic Crests	Show More Recent Crests
	(P): Preliminary values subject to further review.	(P): Preliminary values subject to further review.

Low Water Records

(1) 2.16 ft on 09/19/2011
 (2) 2.59 ft on 11/25/2010
 (3) 2.62 ft on 12/12/2012
 (4) 2.62 ft on 11/20/2014
 (5) 2.75 ft on 10/12/2008

[Show More Low Water Records](#)

Source:

<https://water.weather.gov/ahps2/river.php?wfo=jax&wfoid=18729&riverid=204481&pt%5B%5D=143340&allpoints=151147%2C144195%2C143340%2C151102&data%5B%5D=crests>

Since the previous Hazard Mitigation Plan was completed, no new flood events have been recorded.

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

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are equally vulnerable to this hazard.

An estimated 6.134% of the Residential property (158 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of

\$5,780,864. Also, an estimated 23.5% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (565 of 2,405) in the community may be affected, with a total value of \$116,251,141. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, 4 of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) are in flood zones and therefore could be affected by this hazard. The total value of these Critical Facilities is \$200,000.

Many individuals do not have access to transportation and thus are susceptible to weather hazards. It is very important to notify these individuals through weather radios, radio stations, and other means so that they may seek shelter and/or make arrangements for transportation to shelter facilities. Therefore, a major consideration should be helping individuals, government, and non-profit organizations prepare for the pending flood hazard events.

The GMIS reports do not list any Repetitive Loss/NFIP properties in Atkinson County or the Cities of Pearson and Willacoochee.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

According to FEMA data, 11.7% of the total area of Atkinson County (25,708 acres) is within a flood zone (all in Zone A). Approximately 16.8% of the City of Pearson (316 acres) is within a flood zone, and approximately 10.9% of the City of Willacoochee (265 acres) is within a flood zone.

The major waterways in the community are the Willacoochee River (which forms the western boundary of Atkinson County and passes near to the City of Willacoochee), Red Bluff Creek, and the Satilla River.

Atkinson County and the City of Pearson are members of the National Flood Insurance Program (source: <https://www.fema.gov/cis/GA.html>). As of late 2017, these jurisdictions are in compliance with NFIP requirements and intend to remain in compliance by enforcing flood plain ordinances which prohibit or severely limit development in floodplains. The City of Withlacoochee is not a member of the National Flood Insurance Program, due to decisions made at the discretion of local leaders. However, this plan calls for the City of Willacoochee to join the program as soon as possible.

Atkinson County and the Cities of Pearson and Willacoochee do not participate in the Community Rating System (CRS) program. As of 2017, they were not eligible, according to FEMA (source: <http://www.fema.gov/library/viewRecord.do?id=3629>).

G. Overall HRV Summary of Events And Their Impact

Floods have the potential to cause damage at any place, at any time, throughout Atkinson County and the Cities of Pearson and Willacoochee, and especially in flood-prone areas. Floods can happen quickly and residents may not have time to evade floodwaters. The cost of the damage and potential loss of life may be higher if the event strikes populated areas as opposed to more sparsely populated or unpopulated areas.

The HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section V. Drought

A. Identification of Hazard

The threat of drought has been chosen by the HMPUC as the fifth most likely hazard to occur and cause damage in the community, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center and U.S. Drought Monitor (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events.

Although drought is associated with the summer months in many other parts of the United States, our region has a humid subtropical climate with more precipitation, on average, in the summer than in the winter. Drought can occur at any time, and its effects can last throughout the year and continue from year to year. These effects may include agricultural losses, increased wildfire and fire risk, lack of water for citizens and firefighting, increased flooding risk (because dry land can be less absorbent of rainfall), and other effects that influence other hazards and the safety of the community.

Crops (including trees) are usually most adversely affected by drought events, along with community residents whose water supplies are restricted or cut off (especially those using individual wells). Residents of unincorporated Atkinson County have wells, which may go dry during drought periods, thus leaving those residents without water for extended periods of time. The Cities of Pearson and Willacoochee have municipal water systems.

The U.S. Drought Monitor (<http://droughtmonitor.unl.edu>), established in 1999, is a weekly map of drought conditions that is 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, labelling 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
D0	Abnormally Dry	Going into drought: <ul style="list-style-type: none"> ▪ short-term dryness slowing planting, growth of crops or pastures Coming out of drought: <ul style="list-style-type: none"> ▪ some lingering water deficits ▪ pastures or crops not fully recovered
D1	Moderate Drought	<ul style="list-style-type: none"> ▪ Some damage to crops, pastures ▪ Streams, reservoirs, or wells low, some water shortages developing or imminent ▪ Voluntary water-use restrictions requested
D2	Severe Drought	<ul style="list-style-type: none"> ▪ Crop or pasture losses likely ▪ Water shortages common ▪ Water restrictions imposed
D3	Extreme Drought	<ul style="list-style-type: none"> ▪ Major crop/pasture losses ▪ Widespread water shortages or restrictions
D4	Exceptional Drought	<ul style="list-style-type: none"> ▪ Exceptional and widespread crop/pasture losses ▪ Shortages of water in reservoirs, streams, and wells creating water emergencies

Atkinson County and the Cities of Pearson and Willacoochee are all equally vulnerable to the effects of drought.

B. Profile of Events, Frequency of Occurrences, Probability

According to U.S. Drought Monitor data (see Appendix F), there are 365 reports of drought events (D1, D2, D3, or D4) occurring in Atkinson County (including the Cities) between 01/01/2000 and 12/31/2017. The Historic Recurrence Interval is 0.05 years. This is a 2,027.28% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 19.7, the past 20-year frequency is 18.25, and the past 50-year frequency is 7.3 (see the Hazard Frequency Table in Appendix D).

Since the previous Hazard Mitigation Plan became effective, 61 drought events have been reported.

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

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are equally vulnerable to this hazard.

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the

community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Residents of unincorporated Atkinson County have wells, which may go dry during drought periods, thus leaving those residents without water for extended periods of time. The Cities of Pearson and Willacoochee have municipal water systems.

No other multi-jurisdictional differences have been identified at this time.

G. Overall HRV Summary of Events And Their Impact

Drought has the potential to harm people and the economy throughout Atkinson County and the Cities of Pearson and Willacoochee, potentially at any time of the year, and most significantly in unincorporated areas not served by municipal water systems. Drought may increase the likelihood of wildfires and flooding. Water shortages can impede firefighting efforts at all levels.

The HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section VI. Hurricanes/Tropical Storms

A. Identification of Hazard

The threat of hurricanes/tropical storms has been chosen by the HMPUC as the sixth most likely hazard to occur and cause damage in the community, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events. For further information, see the HAZUS Report in Appendix G.

Hurricanes and tropical storms are both types of tropical cyclones. Tropical cyclones are the general term used for all circulating weather systems over tropical water.¹ Tropical cyclones are destructive and have the potential to cause great damage and loss of life. They are divided into four major types: Hurricanes, Tropical Storms, Tropical Disturbances, and Tropical Depressions.

A hurricane, also known as a typhoon, is defined by NOAA's National Hurricane Center (<http://www.nhc.noaa.gov/aboutgloss.shtml>) as a tropical cyclone in which the maximum sustained surface wind (using the U.S. 1-minute average) is 64 kt (74 mph or 119 km/hr) or more. The term hurricane is used for Northern Hemisphere tropical cyclones east of the International Dateline to the Greenwich Meridian. The term typhoon is used for Pacific tropical cyclones north of the Equator west of the International Dateline.

A tropical storm is defined as tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1-minute average) ranges from 34 kt (39 mph or 63 km/hr) to 63 kt (73 mph or 118 km/hr).

A tropical disturbance is a discrete tropical weather system of apparently organized convection -- generally 100 to 300 nmi in diameter -- originating in the tropics or subtropics, having a nonfrontal migratory character, and maintaining its identity for 24 hours or more. It may or may not be associated with a detectable perturbation of the wind field.

A tropical depression is defined as tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1-minute average) is 33 kt (38 mph or 62 km/hr) or less.

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 categorization based on the hurricane's intensity at the indicated time. The scale provides examples of the type of damage and impacts in the United States associated with winds of the indicated intensity. The following table shows the scale broken down by winds:

¹ A tropical cyclone is defined by NOAA as "a warm-core non-frontal synoptic-scale cyclone, originating over tropical or subtropical waters, with organized deep convection and a closed surface wind circulation about a well-defined center. Once formed, a tropical cyclone is maintained by the extraction of heat energy from the ocean at high temperature and heat export at the low temperatures of the upper troposphere. In this they differ from extratropical cyclones, which derive their energy from horizontal temperature contrasts in the atmosphere (baroclinic effects)." (<http://www.nhc.noaa.gov/aboutgloss.shtml>)

SAFFIR-SIMPSON HURRICANE SCALE

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

Category	Wind Speed	Damage
1	74 - 95	Very dangerous winds will produce some damage
2	96 - 110	Extremely dangerous winds will cause extensive damage
3	111 - 129	Devastating damage will occur
4	130 - 156	Catastrophic damage will occur
5	> 156	Catastrophic damage will occur

The official Atlantic hurricane season (which includes Gulf Coast and East Coast hurricanes) is June 1 through November 30, but hurricanes and tropical storms may also occur outside of those dates. Whether the hurricane/tropical storm is a short-term event or a long term event depends on many factors including category, strength, speed, and impact of other weather systems, including fronts and wind patterns.

Because of their location, Atkinson County and the Cities of Pearson and Willacoochee are vulnerable to severe hurricanes/tropical storms forming in both the Atlantic Ocean and the Gulf of Mexico. Also due to location, hurricanes may degrade into tropical storms, tropical depressions, or tropical disturbances by the time they reach this area. These may or may not contain tornadoes or hail. In some cases, tropical storms, depressions, or disturbances may never reach hurricane strength before reaching the shore. The effects vary depending on the severity of the hurricane/tropical storm and the duration of the event.

B. Profile of Events, Frequency of Occurrences, Probability

According to the NOAA Storm Events Database (see Appendix F), there are 3 reports of Tropical Storms occurring in Atkinson County (including the Cities) between 01/01/1950 and 12/31/2017. Besides these events, there was one additional Tropical Storm event occurring on Sept. 11, 2017 which has not yet been recorded in the NCDC database, bringing the total to 4 events between 01/01/1950 and 12/31/2017. The Historic Recurrence Interval is 17.0 years. This is a 5.88% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.2, the past 20-year frequency is 0.2, and the past 50-year frequency is 0.08 (see the Hazard Frequency Table in Appendix D).

Since the previous Hazard Mitigation Plan was completed, two Hurricane/Tropical Storm events have occurred. On Sept. 1, 2016, Tropical Storm Hermine caused widespread power outages, downed power lines, impassable roads due to fallen trees, and damage to homes and other structures. On Sept. 11, 2017, Tropical Storm Irma caused widespread power outages, downed power lines, impassable roads due to fallen trees, and damage to homes and other structures.

Although the most 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.

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are equally vulnerable to this hazard.

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Hurricane/tropical storm events are usually area-wide, and no difference in severity is expected between Atkinson County and the Cities of Pearson and Willacoochee. 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.

Atkinson County and the City of Pearson are members of the National Flood Insurance Program; the City of Willacoochee is not (source: <https://www.fema.gov/cis/GA.html>). Atkinson County and the Cities of Pearson and Willacoochee do not participate in the Community Rating System (CRS) program. As of 2017, they were not eligible, according to FEMA (source: <http://www.fema.gov/library/viewRecord.do?id=3629>).

G. Overall HRV Summary of Events And Their Impact

Hurricanes/tropical storms have the potential to cause damage at any place, at any time, throughout Atkinson County and the Cities of Pearson and Willacoochee. They are usually preceded by some watch or warning well in advance. The cost of the damage and potential loss of life may be higher if the path of the hurricanes/tropical storms covers populated areas as opposed to more sparsely populated or unpopulated areas.

The Atkinson County HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section VII. Tornadoes

A. Identification of Hazard

The threat of tornadoes has been chosen by the HMPUC as the seventh most likely hazard to occur and cause damage in the community, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events. For further information, see the HAZUS Report in Appendix G.

A tornado is defined by NOAA (<http://www.nssl.noaa.gov/education/svrwx101/tornadoes/>) as a narrow, violently rotating column of air that extends from the base of a thunderstorm to the ground. Because wind is invisible, it is hard to see a tornado unless it forms a condensation funnel made up of water droplets, dust and debris. Tornadoes are the most violent of all atmospheric storms.

About 1,200 tornadoes hit the U.S. yearly. A tornado watch is issued when weather conditions are favorable for tornadoes. During a tornado watch, residents are advised to watch and prepare for severe weather and stay tuned to NOAA Weather Radio to know when warnings are issued. A tornado warning is issued when a tornado has been reported by spotters or indicated by radar and there is a serious threat to life and property to those in the path of the tornado. When a tornado warning is issued, residents must act immediately to find safe shelter. A warning can cover parts of counties or several counties in the path of danger.

The Enhanced Fujita Scale, implemented by the National Weather Service in 2007, is used to assign a tornado a rating based on estimated wind speeds and related damage. The wind speeds associated with the EF ratings are shown in the table below. Because of the difficulty of measuring wind speeds inside a tornado, wind speeds are estimated based on the type of damage that occurs; more information is available on the NOAA website at <http://www.spc.noaa.gov/faq/tornado/ef-scale.html>.

ENHANCED FUJITA WIND DAMAGE SCALE

(Source: <http://www.spc.noaa.gov/faq/tornado/ef-scale.html>)

EF Number	3-Second Gust	Damage
EF-0	65 to 85 mph	Light damage. Some damage chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
EF-1	86 to 110 mph	Moderate Damage., The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.
EF-2	111 to 135 mph	Significant Damage. Roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; high rise windows broken and blown in; light-object missiles generated.

EF-3	136 to 165 mph	Severe Damage. Roofs and walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.
EF-4	166 to 200 mph	Devastating, damage. Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown and large missiles generated.
EF-5	Over 200 mph	Incredible, damage. Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 m (109 yards); trees debarked; steel reinforced concrete structures badly damaged.

Tornadoes may occur at any time of year, although the peak “tornado season” for the Southern Plains is during May into early June. Tornadoes can occur due to inclement weather conditions, as a result of a passing front, or as part of thunderstorm or hurricane/tropical storm events. Tornadoes can occur at any time of the day or night, but according to NOAA (<http://www.nssl.noaa.gov/education/svrwx101/tornadoes/>), most tornadoes occur between 4:00 and 9:00 p.m. The path and severity of a tornado cannot be determined in advance. The best defense is to heed tornado warnings and seek appropriate shelter when a tornado has been sighted in the area or when conditions conducive to a tornado are present.

Atkinson County and the Cities of Pearson and Willacoochee are all vulnerable to the effects of tornadoes. According to NOAA (<https://www.ncdc.noaa.gov/climate-information/extreme-events/us-tornado-climatology>), an average of 30 tornadoes occur per month in Georgia.

B. Profile of Events, Frequency of Occurrences, Probability

According to the NOAA Storm Events Database (see Appendix F), there are 9 reports of tornadoes occurring in Atkinson County (including the Cities) between 01/01/1950 and 12/31/2017. There was also an EF1 tornado on April 1, 2016 that is not in the NOAA database, bringing the total to 10 events over that timeframe. The Historic Recurrence Interval is 6.80 years. This is a 14.71% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.3, the past 20-year frequency is 0.25, and the past 50-year frequency is 0.2 (see the Hazard Frequency Table in Appendix D).

Since the previous Hazard Mitigation Plan was completed, three tornado events have occurred. The most severe of these was on January 22, 2017, when a tornado started in extreme northern Atkinson County and continued to track northeast at 50 mph for about 1.6 miles, producing EF1 damage along Ice Plant Road to trees. At the point where Ice Plant Road merges into Talmadge McKinnon Road in Atkinson county, some outbuildings were demolished and debris blown into a pine stand which was also heavily damaged. A residence at this intersection had extensive tree damage, including one pine tree that impaled a vehicle. Numerous agricultural structures, including silos and elevated irrigation systems, were lifted and carried across pastures along Talmadge McKinnon Road northward toward the Coffee County Line.

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

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are equally vulnerable to this hazard.

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

Typically, mobile/manufactured homes are most vulnerable to tornado damage. According to 2016 Census Bureau estimates, 48.8% of occupied housing units in Atkinson County (including the Cities) are mobile homes (1,326 mobile homes and approximately 4,017 people based on the average household size of 3.03 persons per household in the County). In the City of Pearson, 43.8% of occupied housing units are mobile homes (268 mobile homes and approximately 612 people). In the City of Willacoochee, 51.6% of occupied housing units are mobile homes (235 mobile homes and approximately 711 people).

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Tornadoes tend to follow a straight path regardless of natural features or political boundaries, and no difference in severity is expected between Atkinson County and the Cities of Pearson and Willacoochee. 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. In jurisdictions without building codes and inspections, structures may exist that are not built to code and therefore may be especially vulnerable to the effects of strong winds and other hazards. In jurisdictions with a large number of mobile homes, the damage can be expected to be more severe.

G. Overall HRV Summary of Events And Their Impact

Tornadoes have the potential to cause damage at any place, at any time, throughout Atkinson County and the Cities of Pearson and Willacoochee. They can form quickly and residents may not have time to find adequate shelter, or else adequate shelter facilities may not be available. The cost of the damage and potential loss of life may be higher if the event strikes populated areas as opposed to more sparsely populated or unpopulated areas, or if the event strikes areas with a large number of mobile homes.

The HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section VIII. Severe Winter Storms

A. Identification of Hazard

The threat of Severe Winter Storms has been chosen by the Atkinson County HMPUC as the eighth most likely hazard to occur and cause damage in Atkinson County and the Cities of Pearson and Willacoochee, based on past experience, the FEMA-described methodology, and other factors. Historic data have been examined from various sources, including the National Climatic Data Center (see Appendix F), as well as from local history and personal accounts, in order to determine the frequency of events.

Although this natural hazard did not rank high in any dataset of occurrences or damages happening in Atkinson County and the Cities of Pearson and Willacoochee, undocumented personal accounts of the Atkinson County HMPUC members rated this hazard as likely to occur and cause damage. Because of the infrequency of severe winter storms in this region, residents of Atkinson County and the Cities of Pearson and Willacoochee are not well prepared to handle such events. Icy roads may result in a disproportionate number of automobile crashes because residents are not accustomed to driving in icy conditions. Bridges and overpasses may be more susceptible to icing over, creating an additional hazard. Being unprepared may result in loss of life or substantial damage to property and the economy.

Severe winter storms, at the worst, will produce sleet, freezing rain, and/or 1 to 2 inches of snow, with temperatures as low as the teens (°F). Snow accumulation usually melts away within 24 hours. Possible damage that may occur includes downed tree limbs, impassable roadways, power outages, increased emergency service workloads, failed water/sewer/septic systems, crop damage, and vehicle crashes.

B. Profile of Events, Frequency of Occurrences, Probability

According to the NOAA Storm Events Database (see Appendix F), there has been 1 Severe Winter Storm event reported in Atkinson County (including the Cities) between 01/01/1950 and 12/31/2017. The Historic Recurrence Interval is 68.00 years. This is a 1.47% Historic Frequency Chance per year. The past 10-year Record Frequency Per Year is 0.1, the past 20-year frequency is 0.05, and the past 50-year frequency is 0.02 (see the Hazard Frequency Table in Appendix D).

On Feb. 12, 2010, a winter storm caused snow to fall with approximately 2 inches of accumulation, with some icy roadways. The community was also affected by sleet and freezing rain in the winter of 1993, which was known as the “Storm of the Century.”

Since the previous Hazard Mitigation Plan became effective, no Severe Winter Storm events have been reported.

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

C./D.: Inventory of Assets Exposed and Potential Loss

In Worksheet 3A: Inventory of Assets (appearing in Appendix A), we estimate that all of Atkinson County and the Cities of Pearson and Willacoochee are equally vulnerable to this hazard.

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

Damage to crops is not taken into account in any of these figures. According to the Center for Agribusiness & Economic Development's 2015 Georgia Farm Gate Value Report (http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf), the total farm gate value of agricultural production in Atkinson County is \$98,154,836.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Severe Winter Storm events are usually area-wide, and no difference in severity is expected between Atkinson County and the Cities of Pearson and Willacoochee. In the event of icy roads, hazards would be greater along high-traffic corridors and in more densely populated areas. In the event of a power failure, households for which electricity is the only available source of heat will be more vulnerable to low temperatures. Homeless people are one of the groups that are most vulnerable to the effects of severe winter storms. Agriculture is a significant part of the economy of unincorporated Atkinson County, and many crops may be affected by severe winter weather.

G. Overall HRV Summary of Events And Their Impact

Severe winter storms have the potential to cause damage at any place, at any time during the winter months, throughout Atkinson County and the Cities of Pearson and Willacoochee. The

cost of the damage may be higher in terms of vehicle crashes along high-traffic corridors and in more densely populated areas, and higher in terms of crop damage in the agricultural areas of the county.

The Atkinson County HMPUC recognizes severe winter storms as the eighth most likely natural hazard to occur and cause damage. They have developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen severe winter storm impacts on Atkinson County and the Cities of Pearson and Willacoochee. These are contained in Chapter 4.

Since the previous plan was approved, there have not been any new developments, regulations, or programs that would either increase or decrease the community's overall vulnerability to this hazard.

Chapter 3: Local Human-Caused Hazard, Risk, and Vulnerability (HRV) Summary

Section I. Cyberattacks

A. Identification of Hazard

The threat of a cyberattack has been chosen by the HMPUC as the most likely human-caused hazard to occur and cause damage in the community. In pursuit of the community’s goals of local preparedness, it is essential for Atkinson County and the Cities of Pearson and Willacoochee to have reliable countermeasures and equipment that can be used with confidence for the protection of life, health, property, commerce, and infrastructure.

A cyberattack is any type of offensive maneuver employed by nation-states, individuals, groups, or organizations that targets computer information systems, infrastructures, computer networks, and/or personal computer devices by various means of malicious acts usually originating from an anonymous source that either steals, alters, or destroys a specified target by hacking into a susceptible system.

In Atkinson County and the Cities of Pearson and Willacoochee, the power grid is vulnerable to a potential cyberattack. Among the infrastructure that a cyberattack could potentially target, the power grid is the community’s top priority for countermeasures to lessen or eliminate the damage that could occur from such an attack. By shutting the power grid down, cyberattackers could cause mass hysteria and confusion, as well as damage to the local economy, strain on local resources, and potential injury or death.

Other potentially vulnerable infrastructure includes the computer systems of the local governments and local businesses, and the personal computers of residents of the community. Personal computers may be subject to “ransomware” attacks, in which cyberattackers encrypt all data on the computer and demand money for its return. Personal computers may also be subject to hacking that leads to identity theft, theft of financial information, “phishing” (in which attackers obtain sensitive information by posing as a trustworthy entity), and other scams.

B. Profile of Events, Frequency of Occurrences, Probability

According to the best data available, there have not been any cyberattacks in Atkinson County and the Cities of Pearson and Willacoochee. However, the entire community is equally vulnerable to this hazard and an attack could happen at any place at any time.

C./D.: Inventory of Assets Exposed and Potential Loss

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural,

Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

The entire community is believed to be equally vulnerable to a potential cyberattack. No multi-jurisdictional differences have been identified at this time.

G. Overall HRV Summary of Events And Their Impact

A cyberattack has the potential to harm people and infrastructure throughout Atkinson County and the Cities of Pearson and Willacoochee. The HMPUC has developed a comprehensive range of Mitigation Goals, Objectives, and Action Steps to lessen the impacts from this hazard. These are contained in Chapter 5.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Section II. Civil Unrest

A. Identification of Hazard

The threat of civil unrest has been chosen by the HMPUC as the second most likely human-caused hazard to occur and cause damage in the community. In pursuit of the community's goals of local preparedness, it is essential for Atkinson County and the Cities of Pearson and Willacoochee to have reliable countermeasures and equipment that can be used with confidence for the protection of life, health, property and commerce.

Civil unrest is unrest caused by a group of people. This includes any public disturbance involving acts of violence. Civil unrest may lead to damage or destruction of property and may cause injury or death. Civil unrest may arise directly from illegal activities such as sit-ins and riots, or may arise from activities that were initially legal, such as permitted parades and demonstrations.

Several instances of civil unrest have occurred in the United States in recent years, and it is possible for it to occur in any community. For example, in August 2017 in Charlottesville, Virginia, a rally involving neo-Nazis, white supremacists, and other extremist groups turned violent and resulted in 3 fatalities (including two state troopers and one citizen), and at least 33 persons injured.

During potential force encounters, de-escalation techniques may stabilize the situation and reduce the immediacy of the threat so that more time, options, and resources can be called upon to resolve the situation without the use of force or with a reduction in the force necessary (source: International Association of Chiefs of Police, *National Consensus Policy and Discussion Paper on Use of Force*; http://www.theiacp.org/Portals/0/documents/pdfs/National_Consensus_Policy_On_Use_Of_Force.pdf).

B. Profile of Events, Frequency of Occurrences, Probability

According to the best data available, there have not been any civil unrest events in Atkinson County and the Cities of Pearson and Willacoochee. However, the entire community is vulnerable to this hazard (especially in more densely populated areas) and civil unrest could potentially occur at any time. Civil unrest events are difficult to predict and may occur quickly, giving law enforcement little or no time to respond. In small communities, law enforcement and first responders may lack the resources to respond adequately to a large-scale civil unrest event.

C./D.: Inventory of Assets Exposed and Potential Loss

An estimated 100% of the Residential property (2,602 of 2,602) in Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard, with a total value of \$94,243,673. Also, an estimated 100% of the Commercial, Industrial, Agricultural, Religious/Non-Profit, Government, Education and Utility properties (2,405 of 2,405) in the community may be affected, with a total value of \$488,718,059. The values are based on the most recent available tax roll data for Atkinson County and the Cities of Pearson and Willacoochee, provided by the Atkinson County Tax Assessor's Office.

According to the inventory database reports and maps, all of the 85 Critical Facilities and Infrastructure for Atkinson County (including the Cities of Pearson and Willacoochee) could be affected by this hazard. The total value of these Critical Facilities is \$147,994,869, plus a content value of \$4,332,008.

E. Land Use and Development Trends

The County and Cities have seen a considerable increase in population over the last few years. The City of Pearson has zoning regulations; Atkinson County and the City of Willacoochee do not. All jurisdictions have mandatory building and fire codes which are enforced by a building inspector. There is no planning commission. The County and Cities participate in joint comprehensive planning and in the required updates of the Service Delivery Strategy. No other land use or development trends that relate to this hazard have been identified at this time.

F. Multi-Jurisdictional Differences

Although civil unrest has been known to occur in both rural and urban areas, it is predicted that due to the concentration of population, such events are more likely to occur in more densely populated areas. Therefore, the Cities of Pearson and Willacoochee are expected to be more vulnerable to a civil unrest event than unincorporated Atkinson County.

Atkinson County is served by the Atkinson County Sheriff's Office. The City of Pearson is served by the Pearson Police Department, and the City of Willacoochee is served by the Willacoochee Police Department.

G. Overall HRV Summary

A significant portion of the community could be vulnerable to a civil unrest event. Preparation for such an event requires specific training for first responders and law enforcement and coordination among agencies to ensure a swift response and containment of such an event. Therefore, a key priority should be to train responders and law enforcement to fulfill their responsibilities and conduct periodic exercises to be sure the response plan is realistic and responders are ready to carry it out. Training of law enforcement officers in de-escalation techniques may reduce potential injuries, loss of life, and damage to property.

Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard.

Chapter 4: 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 that have been made.

Chapter 4 Section	Updates to Section
I. Thunderstorm/Wind	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)
II. Hail	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)
III. Wildfire	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)
IV. Flood	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)
V. Drought	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)
VI. Hurricane/Tropical Storm	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)
VII. Tornado	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)
VIII. Severe Winter Storm	Updated Goals, Objectives, and Action Step Formatting, Numbering and Data Fields, Updated or Deleted Prior Action Steps and Added New Action Steps (if applicable)

Table 4.1: Overview of updates to Chapter 4: Local Natural Hazards, Mitigation Goals and Objectives

Overall Community Mitigation Goals, Policies, and Values Narrative

This plan, as a joint effort between Atkinson County and all municipalities therein, will serve as a comprehensive mitigation plan. The mitigation strategies, hazard identification, and other information identified in this plan will be integrated into all comprehensive Atkinson County plans, as well as all municipality plans in the future. Incorporation of these strategies will occur, as necessary, throughout this planning cycle covered by this Hazard Mitigation Plan Update. In particular, aspects of this plan will be integrated into the Atkinson County Comprehensive Plan during the next planning cycle.

Identified hazards and mitigation strategies of the previous Atkinson County Hazard Mitigation plan were integrated into the Local Emergency Operations Plan, multiple County and City SOPs and SOGs, and future planning and zoning plans. Atkinson County will integrate mitigation strategies identified in this plan into the Atkinson County Comprehensive Plan, Community Wildfire Protection Plan, Continuity of Operations Plan (when applicable), and other future plans. Strategies identified in the previous plan were applied to grant applications, building and zoning requirements, and development planning considerations for Atkinson County and all municipalities therein. Many of these strategies will be applied using previously identified policies and ordinances. All jurisdictions have the authority to adopt locally-binding ordinances and policies to enhance the mitigation strategies in their jurisdiction.

The Legal and Regulatory Capability Survey (below) describes the authorities available to the jurisdictions and/or enabling legislation at the state level affecting planning and land management tools that support local hazard mitigation planning efforts. The identified planning and land management tools are typically used by states and local jurisdictions to implement hazard mitigation activities.

Regulatory Tools/Plans	Regulatory Type: Ordinance, Resolution, Codes, Plans, Etc.	Local Authority	State Prohibited	Higher Authority
Building Codes	County/Municipal Code	Yes	No	No
Capital Improvements Plan	Atkinson County Comprehensive Plan	Yes	No	No
Comprehensive Plan	Atkinson County Comprehensive Plan	Yes	No	No
Economic Development Plan	Atkinson County Comprehensive Plan	Yes	No	Yes
Emergency Response Plan	Atkinson County Local Emergency Operations Plan (LEOP)	Yes	No	Yes
Zoning Ordinances	City of Pearson Zoning Ordinance (County and Willacoochee do not currently have zoning)	Yes	No	No

The City of Pearson offers many administrative and technical services to the community. City departments include: Administrative, Public Works, Water and Sewer, Garbage, Licensing and Permits, Police Department, and Fire Department.

The City of Willacoochee offers many administrative and technical services to the community. City departments include: Administrative, Public Works, Water and Sewer, Garbage, Licensing and Permits, Police Department, and Fire Department.

Opportunities to integrate the requirements of this Plan into other local planning mechanisms shall continue to be identified. Although it is recognized that there are many possible benefits to integrating components of this Plan into other local planning mechanisms, the development and maintenance of this stand-alone Hazard Mitigation Plan is deemed by the Atkinson County Hazard Mitigation Planning Committee to be the most effective and appropriate method to implement local hazard mitigation actions at this time.

While Atkinson County and the Cities of Pearson and Willacoochee each operate autonomously, there is a high level of cooperation exhibited when it comes to 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. 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 of the stakeholders. Working together, the jurisdictions 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 preparatory information to their citizens.

Overall, the priorities for each of the local communities have remained relatively unchanged. The hazards and risks associated with each have not changed, and many of the action steps identified during previous Hazard Mitigation Plans are still relevant and remain a priority in this plan as well.

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

The jurisdictions have many current policies and programs related to hazard mitigation, which are described in detail in the goals, objectives, and action steps contained in Chapter 4 of this Plan. All jurisdictions (within the boundaries of their budgets) have the ability to 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 amount of resources available to the jurisdictions for expansion and improvement of existing programs will depend on factors such as the local government budgets and the availability of state and federal funding to support hazard mitigation activities.

This chapter contains a description of the comprehensive range of Mitigation Goals, Objectives, and Action Steps that were developed by the HMPUC to reduce damages and improve safety through Hazard Mitigation. These have been arranged by the natural hazards contained in Chapter 2. There is particular emphasis on emergency preparedness and infrastructure.

The 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 of this Plan. All areas of the community were taken into account in the development of the comprehensive range of Mitigation Goals, Objectives, and Action Steps. These were identified after the weighing of many factors discovered during the planning process, including risk assessment, storm history, past damage, community resources, and other factors.

A list of the comprehensive range of Mitigation Goals, Objectives, and Action Steps was compiled from the input of the HMPUC, as well as from others within the community. Members of the HMPUC prioritized the identified comprehensive range of Mitigation Goals, Objectives, and Action Steps based on what was anticipated to be most beneficial to the community. The benefits of all action steps were determined to be greater than the costs involved.

Several criteria were established to assist the HMPUC members in the prioritization of these suggested Mitigation Goals, Objectives, and Action Steps. Criteria included perceived cost vs. benefit or cost effectiveness, availability of potential funding sources, overall feasibility, measurable milestones, political support for the proposed actions, and the STAPLEE criteria.

Through this prioritization process, several projects emerged as having higher priority than others. Some of the projects involved expending considerable amounts of funds to initiate the required actions. The determination of the cost/benefit analysis (such as the FEMA B/CA model) of a project will be implemented at the time of project application or funding request. Other projects allowed the communities to pursue completion of the project using potential grant funding. Still others required no significant financial commitment by the communities.

In Chapter 6, Sections I-III, there is a description of the planning process involved in selecting the comprehensive range of Mitigation Goals, Objectives, and Action Steps. The Action Steps are given a rating of High, Medium, or Low Priority by the HMPUC based on a number of factors (with a primary emphasis on prioritized cost versus benefit review) identified in Chapter 6, Section I.

Relevant comprehensive ranges of Mitigation Goals, Objectives, and Action Steps are listed below throughout the chapter. The Atkinson County EMA Director has been chosen by Atkinson County and the Cities of Pearson and Willacoochee to oversee the projects. The Atkinson County EMA has been designated by Atkinson County and the Cities of Pearson and Willacoochee to be the coordinating agency for implementation and administration of these projects.

Section I. Thunderstorms/Wind

A. Community Mitigation Goals

As previously indicated in Chapter 2, this hazard may cause substantial damage to life, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. Thunderstorms and wind are unpredictable and can happen at any place and at any time. Because these storms may be extremely violent and cause great damage, the HMPUC believes that the comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of the Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section I.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations:

Goal #1: Prevent or reduce damage caused by Thunderstorms and Winds in Atkinson County, the City of Pearson and the City of Willacoochee.

Objective #1: Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Thunderstorms and Winds.

Action Step #1 – *Completed (see Subsection F).*

Action Step #2: Disseminate information to the public concerning wind ratings and champion new construction being built to those minimum wind standards and champion the wind retrofitting of Critical Facilities and existing buildings in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County EMA, Atkinson County/City of Pearson/City of Willacoochee Building Inspection Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

Action Step #3 – *Completed (see Subsection F).*

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

Completed Action Steps

Goal 1

Objective 1

- Action Step #1: Increase public awareness of weather radios, shelters, emergency procedures and the use of a local radio station as the emergency broadcast system station in Atkinson County, the City of Pearson and the City of Willacoochee through public safety announcements, publications and other means.
- Action Step #3: Study Critical Facilities in Atkinson County and the Cities of Pearson and Willacoochee to determine if they require wind retrofitting and pursue funds to do so, if needed.

Section II. Hail

A. Community Mitigation Goals

As previously indicated in Chapter 2, this hazard may cause substantial damage to life, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. Hail is unpredictable and can happen at any place and at any time. Due to the damage it may cause, the HMPUC believes that the comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section II.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations

Goal #1: Prevent or reduce damage caused by Hail in Atkinson County, the City of Pearson and the City of Willacoochee.

Objective #1: Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Hail in Atkinson County, the City of Pearson, and the City of Willacoochee.

Action Step #1 – Discontinued – not needed (see Subsection F).

Action Step #2: Encourage public to include hail damage under insurance coverage and store equipment & vehicles under shelters in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County EMA, Atkinson County/City of Pearson/City of Willacoochee Building, Public Works & Maintenance Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

Discontinued Action Steps

Goal 1

Objective 1

- Action Step #1: Install storm windows or ballistic film on new and existing Critical Facilities and promote their installation on new and existing private buildings in Atkinson County, the City of Pearson and the City of Willacoochee.

Section III. Wildfires

A. Community Mitigation Goals

As previously indicated in Chapter 2, this hazard may cause substantial damage to life, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. Wildfires are unpredictable and can happen at any place and at any time. Due to the great damage it may cause, the HMPUC believes that the comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of the Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section III.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendation

Goal #1: Prevent or reduce damage caused by Wildfire in Atkinson County, the City of Pearson and the City of Willacoochee.

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, air units (45 minute high pressure SCBAs w/spare bottles & AED), air unit chargers (SCBA cascade systems), Class A Pumper & Fire Knocker trucks, PPEs, a cooling/rehab unit, turbo drafts, thermal imaging cameras and other equipment to all Fire Departments for wildfire use.	
Responsible Department	Atkinson County EMA, Atkinson County Fire Dept.
Anticipated Cost	\$1,500,000.00
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Partially completed. First responder training, air units, and air unit chargers (SCBA cascade systems) have been completed. The remainder is ongoing.

Action Step #2: Plan to acquire property for new Fire Stations and/or new additions to those existing stations.	
Responsible Department	Atkinson County Fire Dept.
Anticipated Cost	\$1,000,000.00
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #3 – Combined with Action Step 2 since the City and County Fire Departments have been consolidated.

Action Step #4: In the City of Pearson and the City of Willacoochee, replace the four-inch (4”) (and smaller) water lines with six-inch (6”) water lines and hydrants.	
Responsible Department	Atkinson County Fire Dept.
Anticipated Cost	\$500,000.00 each project
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA, GA DCA CDBG
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #5: Provide Firefighter 1 Training and Firefighter 2 Training To All Firefighters.	
Responsible Department	Atkinson County EMA, Atkinson County Fire Dept.
Anticipated Cost	\$100,000.00
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA, AFG
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #6 – Completed (see Subsection F).

Action Step #7 – Discontinued (see Subsection F).

Action Step #8: Construct a new fire department building.	
Responsible Department	Atkinson County Fire Dept.
Anticipated Cost	\$500,000.00
Existing & Potential Funding Sources	General Funds, Grants
Jurisdiction	City of Pearson
Timeframe	2020-2022
Priority	High
Status	New

Objective #2: Obtain a FireWise Community Status by educating the Atkinson County, City of Pearson and City of Willacoochee 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 Atkinson County, the City of Pearson, the City of Willacoochee and the County/City Fire Departments and plan to increase levels of awareness and resources during peak hazard conditions through the use of education sessions, community meetings, a Fire Safety House, etc.	
Responsible Department	Atkinson County EMA, Atkinson County Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

Action Step #2: Partner with the Georgia Forestry Commission to provide education to Atkinson County, the City of Pearson and the City of Willacoochee communities and citizens on the pre-disaster mitigation of wildfire and use & develop grade school based programs to educate children.	
Responsible Department	Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

Action Step #3: Plan RFD meetings and hold joint mock fire drills for the Fire Department.	
Responsible Department	Atkinson County EMA, Atkinson County Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

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

Action Step #1: Create a minimum of 30 feet of defensible space around all governmental structures and recommend to homeowners & community stakeholders that they create same space through the trimming of shrubs and vines, overhanging limbs, replacement of flammable plants with less flammable varieties and remove vegetation around chimneys.	
Responsible Department	Atkinson County EMA, Atkinson County Fire Dept., Atkinson County/City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	\$35.00 an acre
Existing & Potential Funding Sources	General Funds, DOHS-FEMA/GEMA, USFS
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	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.	
Responsible Department	Atkinson County EMA, Atkinson County Fire Dept., Atkinson County/City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	\$35.00 an acre
Existing & Potential Funding Sources	General Funds, DOHS-FEMA/GEMA, USFS
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #3: Initiate Community Clean Up Day and cut, prune and mow vegetation in shared community spaces.	
Responsible Department	Atkinson County EMA, Atkinson County Fire Dept., Atkinson County/City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #4: Ensure Driveway Access/Right-Of-Way Clearance by maintaining vertical and horizontal clearance for emergency equipment and seeing that adequate lengths of culverts are installed to allow emergency vehicle access.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Road Depts., Building Inspection Depts. & Public Works Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #5: Ensure Road Access by identifying needed road improvements and as roads are upgraded, widen to minimum standards with at least 50 foot diameter cul-de-sacs or turn arounds.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Road Depts., Building Inspection Depts. & Public Works Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #6 – Completed (see Subsection F).

Action Step #7: Initiate greater Burn Permit enforcement and use education opportunities from the GA Forestry Commission; Make information available in Spanish.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts. & Public Works Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #8: On adjacent WUI Lands, reduce hazardous fuels by encouraging prescribed burning for private landowners and industrial timberlands particularly adjacent to residential areas; Seek grant for mowing or prescribed burning in WUI areas.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts., Public Works Depts., Fire Dept.
Anticipated Cost	\$35.00 an acre
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA, USFS
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #9: Pursue wildland fuel reduction through reduction of hazardous fuels and make training available for prescribed burning techniques and liability issues.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts., Public Works Depts., Fire Dept.
Anticipated Cost	\$35.00 an acre
Existing & Potential Funding Sources	General Funds, DOHS-FEMA/GEMA, USFS
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #10: Improve existing fire lines by reducing hazardous fuels through the cleaning and re-harrowing of existing lines.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts., Public Works Depts., Fire Dept.
Anticipated Cost	\$35.00 an acre
Existing & Potential Funding Sources	General Funds, DOHS-FEMA/GEMA, USFS
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #11 – Completed (see Subsection F).

Action Step #12 – Completed (see Subsection F).

Action Step #13 – Completed (see Subsection F).

Action Step #14 – Completed (see Subsection F).

Action Step #15: Ensure that all personnel are trained in Wildfire Suppression.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #16: Conduct “How to Have a Firewise Home” Workshop for Atkinson County Residents.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #17: Conduct “Firewise” Workshop for Atkinson County Community Leaders.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #18: Conduct a Spring Clean-up Event Every Spring.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #19: Develop and distribute Firewise informational packets to code enforcement, realtors & insurance agents.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #20: Create and Exhibit a Wildfire Protection Display at Local Events and Hold Open Houses At Fire Stations to Develop Community Support and Understanding of Local Fire Departments and Current Issues.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #21: Invite the Local News Media to Community “Firewise” Functions for News Coverage and Regularly Submit Press Releases Documenting Wildfire Risk Improvements.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #22: Create an Atkinson County WUI Fire Council to Accurately Assess Community Wildfire Protection Plan Progress and Effectiveness and Implement Programs & Projects.	
Responsible Department	Atkinson County EMA, Fire Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA Forestry
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

Completed Action Steps

Goal 1

Objective 1

- Action Step #6: Consolidate the Fire Departments so that ISO numbers will improve.

Objective 3

- Action Step #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 property) and other relevant concerns; Review subdivision and development ordinances for public safety concerns; Enact and enforce uniform addressing ordinance.
- Action Step #11: Ensure access to water sources and dry hydrants by mapping sites, inspecting, maintaining and improving access to existing dry hydrants, adding signage along roads to mark the hydrants, locating additional dry hydrants as needed and locating & pre-clearing helicopter dip sites.
- Action Step #12: Ensure all fire stations and firefighters are equipped with wildland hand tools, lightweight PPE gear, improved tanker capacity and turbo draft pumps.
- Action Step #13: Update and continue to update mapping of roads, buildings and water sources.
- Action Step #14: Insure that road names are adequately marked through improved road signage at crossroads and installation of “Dead End” or “No Outlet” tags on road signs.

Discontinued Action Steps

Goal 1

Objective 1

- Action Step #7: Hire a full time fireman in the City of Willacoochee. *(No longer needed due to the consolidation of the Fire Departments.)*

New Action Steps

Goal 1

Objective 1

- Action Step #8: Construct a new fire department building.

Section IV. Floods

A. Community Mitigation Goals

As previously indicated in Chapter 2, this hazard may cause substantial damage to life, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. Floods are unpredictable and can happen at any place and at any time. Because of the damage and loss of life it may cause, the HMPUC believes that the comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

The major waterways in the community are the Willacoochee River (which forms the western boundary of Atkinson County and passes near to the City of Willacoochee), Red Bluff Creek, and the Satilla River. Due to these facts, the Atkinson County HMPUC believes that the comprehensive range of Mitigation Goals, Objectives, and Action Steps listed below should be implemented to reduce the threat of flood damage in Atkinson County and the Cities of Pearson and Willacoochee.

B. Identification and Analysis of the Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section IV.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations:

Goal #1: Prevent or reduce damage caused by Floods in Atkinson County, the City of Pearson, and the City of Willacoochee.

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

Action Step #1 – Completed (see Subsection F).

Action Step #2: Conduct storm-water drainage replacement, repair & cleaning and maintain canals in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	\$500,000.00 each project
Existing & Potential Funding Sources	General Funds, GA DCA CDBG
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #3: Plan flood and drainage projects in Atkinson County in Jimmy Grantham area, New Harmony Grove to Old Douglas Highway, Bent Pine Road off U.S. #441 to Coffee County Line, in high risk areas and in areas lacking curb & gutter.	
Responsible Department	Atkinson County Public Works Depts.
Anticipated Cost	\$500,000.00 each project
Existing & Potential Funding Sources	General Funds, GA DCA CDBG, GDOT
Jurisdiction	Atkinson County
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #4: Plan flood and drainage projects in the City of Pearson behind Cady Bag, on Austin Avenue from Water Tower to four lane, on U.S. #441 north of SR #82, in high risk areas and in areas lacking curb & gutter.	
Responsible Department	City of Pearson Public Works Depts.
Anticipated Cost	\$500,000.00 each project
Existing & Potential Funding Sources	General Funds, GA DCA CDBG, GDOT
Jurisdiction	City of Pearson
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #5: Plan flood and drainage projects in the City of Willacoochee in high risk areas and in areas lacking curb & gutter.	
Responsible Department	City of Willacoochee Public Works Depts.
Anticipated Cost	\$500,000.00 each project
Existing & Potential Funding Sources	General Funds, GA DCA CDBG, GDOT
Jurisdiction	City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #6 – Completed (see Subsection F).

Action Step #7: The City of Willacoochee will join the National Flood Insurance Program as soon as possible.	
Responsible Department	City of Willacoochee City Commission, Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #8 – Completed (see Subsection F).

Action Step #9: Work to preserve wetland areas in Atkinson County, the City of Pearson and the City of Willacoochee to assure that excess water can be captured.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts., Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

Action Step #10: After flood events, or other hazard events in Atkinson County, the City of Pearson and the City of Willacoochee, attempt to perform analysis on properties effected to determine if events have occurred in the past and attempt to mitigate or purchase, if necessary.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Public Works Depts., Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

Action Step #11: Work towards database to record depth of flooding to determine extent of potential damage.	
Responsible Department	Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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.

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

Completed Action Steps

Goal 1

Objective 1

- Action Step #1: Conduct studies and implement projects of ways to protect the 4 Critical Facilities & Infrastructure from Flood damages in Atkinson County and the Cities of Pearson and Willacoochee.
- Action Step #6: The City of Pearson will join the National Flood Insurance Program as soon as possible.
- Action Step #8: Attempt to take precautions at water facilities in unincorporated Atkinson County, the City of Pearson and the City of Willacoochee to ensure flood protection, as funds become available to do so.

Section V. Drought

A. Community Mitigation Goals

As previously indicated in Chapter 2, drought may cause substantial economic, property, and personal damage in Atkinson County and the Cities of Pearson and Willacoochee, particularly in the form of crop damage. Its effects can be long-term, with the damage increasing as time goes by. In addition, drought conditions can contribute to wildfires in the community. The HMPUC believes that, due to the damage drought can cause, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section V.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations

Goal #1: Prevent or reduce damage caused by Drought in Atkinson County, the City of Pearson and the City of Willacoochee.

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

Action Step #1 – Completed (see Subsection F).

Action Step #2: Replace antiquated water & sewer lines and equipment prone to failure in the City of Pearson and the City of Willacoochee through CDBG grant funds and other funds when available.	
Responsible Department	City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GA DCA CDBG
Jurisdiction	City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #3: Work with the County Extension Agent to distribute literature related to best management practices in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #4: Promote increased usage of surface water and surface artesian flow for irrigation instead of well systems in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts., Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each

jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

Completed Action Steps

Goal 1

Objective 1

- Action Step #1: Seek input from State and Federal agencies to enact procedures during Drought to limit water usage in Atkinson County, the City of Pearson and the City of Willacoochee.

Section VI. Hurricanes/Tropical Storms

A. Community Mitigation Goals

As previously indicated in Chapter 2, hurricanes and tropical storms may cause substantial damage to life, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. They are usually accompanied by some advanced notice, giving the community time to prepare and/or evacuate. The HMPUC believes that, because these extreme weather events have the potential to cause great damage, injury, and loss of life, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section VI.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the

retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie’s Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations

Goal #1: Prevent or reduce damage caused by Hurricanes/Tropical Storms in Atkinson County, the City of Pearson and the City of Willacoochee.

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: Develop C.E.R.Ts (Community Emergency Response Teams) in Atkinson County and the Cities of Pearson and Willacoochee.	
Responsible Department	Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #2 – Completed (see Subsection F).

Action Step #3: Work with GDOT to improve unsafe roads in Atkinson County, the City of Pearson and the City of Willacoochee that already are, or could be, evacuation routes.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Road Depts., Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds, GDOT
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #4 – Completed (see Subsection F).

Action Step #5: Apply for a Red Cross storage trailer and construct a storage building for storage of emergency materials needed for shelters, etc., relocate materials from Brunswick, secure additional cots and materials, medications and dehydrated foods for shelters.	
Responsible Department	Atkinson County EMA, Atkinson County Commission, City of Pearson City Council, City of Willacoochee City Council
Anticipated Cost	\$500,000.00
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA, Red Cross
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	Medium
Status	Ongoing

Action Step #6 – Completed (see Subsection F).

Action Step #7: Order a new Ambulance in order to serve the county in emergency situations.	
Responsible Department	Atkinson County EMS
Anticipated Cost	\$125,000.00
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #8: Purchase one new police patrol car in the City of Willacoochee.	
Responsible Department	City of Willacoochee City Council
Anticipated Cost	\$50,000.00
Existing & Potential Funding Sources	General Funds
Jurisdiction	City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Objective #2: Advise the public of health & safety precautions and procedures necessary during Hurricanes/Tropical Storms and other events and on pre-disaster mitigation, in general, in Atkinson County, the City of Pearson and the City of Willacoochee.

Action Step #1: Acquire and distribute literature from state agencies regarding disaster health & safety issues in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #2: Distribute information concerning pre-disaster mitigation to area news markets and by speaking at schools and civic clubs in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

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

Action Step #1: Obtain mobile and fixed generators (including transfer switches) to provide back-up power where needed, and pre-wire Critical Facilities & gas pumps for generator use in Atkinson County, the City of Pearson, and the City of Willacoochee.	
Responsible Department	Atkinson County EMA
Anticipated Cost	\$500,000.00
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA, Red Cross
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #2: Install GPS location systems in Emergency Vehicles.	
Responsible Department	Atkinson County EMA/Sheriff/FD/EMS, City of Pearson/City of Willacoochee PD/FD
Anticipated Cost	\$500.00 each
Existing & Potential Funding Sources	General Funds, DOHS-GEMA/FEMA
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each

jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

Completed Action Steps

Goal 1

Objective 1

- Action Step #2: If possible, design new educational facilities to the level that they could be used as public shelters for emergency purposes and test current shelters and educational facilities for safety and effectiveness in Atkinson County, the City of Pearson and the City of Willacoochee.
- Action Step #4: Install automated recorders and create an information line at the Atkinson County Commission to educate and inform the public on hazardous weather information, closings, events, etc., using a local reverse 911 type system.
- Action Step #6: Designate and attempt to supply new Red Cross Shelters in Atkinson County, the City of Pearson and the City of Willacoochee.
- Action Step #8: Purchase two (2) new police patrol cars in the City of Willacoochee. *(Partially completed; one car has been purchased and one more is needed.)*

Section VII. Tornadoes

A. Community Mitigation Goals

As previously indicated in Chapter 2, this hazard may cause substantial damage to life, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. Tornadoes are unpredictable and can happen at any place and at any time. Because these tornadoes may be extremely powerful and cause great damage, the HMPUC believes that the comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section VII.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendation:

Goal #1: Prevent or reduce damage caused by Tornadoes in Atkinson County, the City of Pearson and the City of Willacoochee.

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

Action Step #1: Use building inspection program to inspect for adequate tie-downs on manufactured housing in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Building Inspection Dept.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #2: Plan for pre-disaster mitigation in Tornado & other hazard seasons by preparing public service announcements, brochures and solicit business participation in distributing information.	
Responsible Department	Atkinson County EMA
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #3: Promote safe shelter rooms in areas of Atkinson County, the City of Pearson and the Cities of Willacoochee where Tornadoes and other disasters frequent.	
Responsible Department	Atkinson County EMA, Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #4 – Completed (see Subsection F).

Action Step #5: Develop grid pattern/address based system to physically notify and check on high risk residents both before and after natural disaster events in the City of Pearson, the City of Willacoochee and in populated areas of Atkinson County.	
Responsible Department	Atkinson County EMA, Atkinson County/City of Pearson/City of Willacoochee FD
Anticipated Cost	\$10,000.00
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

Completed Action Steps

Goal 1

Objective 1

- Secure funding for a hazardous weather alert system in the City of Pearson, the City of Willacoochee and in populated areas of Atkinson County.

Section VIII. Severe Winter Storms

A. Community Mitigation Goals

As previously indicated in Chapter 2, severe winter storms may cause substantial economic, property, and personal damage in Atkinson County and the Cities of Pearson and Willacoochee. Severe winter storms are usually predictable ahead of time, but they can still cause substantial problems. Atkinson County and the Cities of Pearson and Willacoochee do not have the specialized equipment used during severe winter storms that most northern counties and cities possess. The HMPUC believes that, due to the damage these severe winter storms have the potential to cause, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 2, Section VIII.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations

Goal #1: Prevent or reduce damage caused by Severe Winter Storms in Atkinson County, the City of Pearson and the City of Willacoochee.

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 Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	\$3,000.00
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #2: Maintain temperatures above 32 degrees to prevent freezing in government owned occupied and unoccupied structures in Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County/City of Pearson/City of Willacoochee Public Works Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	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 Atkinson County, the City of Pearson and the City of Willacoochee.	
Responsible Department	Atkinson County EMA, Atkinson County/City of Pearson/City of Willacoochee Building Inspection Depts.
Anticipated Cost	Staff Time
Existing & Potential Funding Sources	General Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

(No changes.)

Chapter 5.
Local Human-Caused Hazard
Mitigation Goals and Objectives

Overall Community Mitigation Goals, Policies, and Values Narrative

The purpose of the Atkinson County Hazard Mitigation Plan is to not only assess the vulnerability of the area to natural hazards, but to identify those action steps that may need to be undertaken to reduce the potential loss of life and property from identified hazards that originate from human activity. As in the case of natural hazards, the development of this plan requires an overall set of community goals that clearly state the community's commitment to reducing or avoiding the long-term vulnerabilities to the identified hazards. With these overall goals in place, more specific goals, objectives, and action steps to protect the community from the identified hazards can then be developed. Using the findings from the Risk Assessment as a guide, the HMPUC has developed the following overall community mitigation goals:

Goal 1: Protect the public health and safety;

Goal 2: Eliminate or reduce exposure of critical community facilities to the hazards identified in the community risk assessment;

Goal 3: Where exposure to hazards cannot be limited, implement, to the extent resources are available, the action steps needed to reduce the potential loss of life and property;

Goal 4: Maintain and/or enhance the community's capacity to issue warnings and to respond promptly and effectively in a hazard event.

With these overall community mitigation goals in place, the following Goals, Objectives, and Action Steps have been developed to specifically address the technological hazards identified in Chapter 3. In addition, the same methodology as in Chapter 4 was utilized in ranking the priority of each action step.

This section is new as of this plan update; the previous plan did not contain a section on human-caused hazards.

Section I. Cyberattacks

A. Community Mitigation Goals

As previously indicated in Chapter 3, a cyberattack may cause substantial damage to life, health, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. Such events can occur with little or no warning, may take many various forms, and may target a variety of organizations, individuals, or infrastructure. The HMPUC believes that, because these events have the potential to cause great harm to the community, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 3, Section I.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie's Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations

Goal 1: Protect the residents and infrastructure of Atkinson County from the possible effects of cyberattacks.

Objective 1: Enhance the resilience of the local power grid in the face of a cyberattack.

Action Step #1: Coordinate with companies providing power in the community to ensure that the power grid is up to date and the latest and best measures are taken for resilience against cyberattacks.	
Responsible Department	EMA, Power Companies
Anticipated Cost	Staff time
Existing & Potential Funding Sources	Local Operating Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Objective 2: Increase awareness among the community’s residents of the danger of internet scams, phishing, hacking, ransomware, and other computer-related crimes.

Action Step #1: Distribute literature and information via print and social media to raise awareness of the danger of internet scams, phishing, hacking, ransomware, and other computer-related crimes.	
Responsible Department	EMA, Sheriff’s Department, Police Departments
Anticipated Cost	\$1,000/yr
Existing & Potential Funding Sources	Local Operating Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Objective 3: Improve the resistance of local governments and agencies in the face of a cyberattack.

Action Step #1: Ensure that the computer systems of the local governments and public safety organizations are up to date and equipped with the latest and best antivirus software and other security measures.	
Responsible Department	Atkinson County, City of Pearson, City of Willacoochee, EMA, Sheriff’s Department, Police Departments
Anticipated Cost	\$2,000
Existing & Potential Funding Sources	Local Operating Funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

None (this section is new as of this plan update).

Section II. Civil Unrest

A. Community Mitigation Goals

As previously indicated in Chapter 3, a civil unrest event may cause substantial damage to life, property, and the economy in Atkinson County and the Cities of Pearson and Willacoochee. Such events can occur with little or no warning, giving the community no time to prepare and overwhelming public safety resources. The HMPUC believes that, because these events have the potential to cause great damage, injury, and loss of life, a comprehensive range of Mitigation Goals, Objectives, and Action Steps (contained in Section C below) should be implemented to reduce this hazard's potential impact on the community.

B. Identification and Analysis of Comprehensive Range of Mitigation Options

1. Structural and Non-Structural Mitigation:

This Hazard Mitigation Plan contains both structural and non-structural options. For more information, see the comprehensive range of Mitigation Goals, Objectives, and Action Steps contained in Section C below.

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. For more information, see Chapter 3, Section II.

3. Community Values, Historic and Special Considerations:

Historic buildings exist in the community, a few of which are Critical Facilities. There are historic and special considerations that pose significant challenges with regard to the retrofitting of historic buildings in order to make them more resilient to natural hazards. A

small number of properties in Atkinson County and the Cities of Pearson and Willacoochee are listed in the National Register of Historic Places, including McCranie’s Turpentine Still.

4. New Buildings and Infrastructure:

The mitigation strategy and recommendations that follow 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. Mitigation Strategy and Recommendations

Goal 1: Protect the residents, businesses, and infrastructure of Atkinson County from the possible effects of civil unrest.

Objective 1: Enhance the capacity of the Atkinson County Emergency Management Agency, public safety, and first responders to respond effectively and efficiently to a civil unrest event.

Action Step #1: Design and build a new jail	
Responsible Department	Atkinson County
Anticipated Cost	\$35,000
Existing & Potential Funding Sources	Grants
Jurisdiction	Atkinson County
Timeframe	2019-2020
Priority	High
Status	Ongoing

Action Step #2: Purchase new police cars every two years	
Responsible Department	Sheriff’s Department, Police Departments
Anticipated Cost	\$25,000 per car
Existing & Potential Funding Sources	Grants
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

Action Step #3: Implement a training plan for Sheriff/Fire/EMS	
Responsible Department	Sheriff's Department, Police Departments, EMA, EMS, Fire Department
Anticipated Cost	Staff time
Existing & Potential Funding Sources	Local operating funds
Jurisdiction	Atkinson County, City of Pearson, City of Willacoochee
Timeframe	2019-2024
Priority	High
Status	Ongoing

D. Special Multi-Jurisdictional Strategy and Considerations:

Most of the strategies outlined above apply to and are intended to be carried out by each of the local jurisdictions. In certain cases, 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:

All sections of the Plan shall be monitored and evaluated annually by the County Emergency Management Agency. Incremental accomplishments of Mitigation Goals, Objectives, and Action Steps will be reported to the public through appropriate means (news media, social media, web pages, City Council and County Commission meetings, etc.). By utilizing available resources, each jurisdiction will keep the public constantly informed of the development of these strategies and of 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, that have been completed, which in turn will result in savings of life, money, and property. For further details on plan execution, see Chapter 6.

F. Changes from the Previous Plan

None (this section is new as of this plan update).

Chapter 6: **Executing The Plan**

Summary of changes:

- Revised and updated language.

Section I. **Implementation of the Action Plan**

A. Administrative Actions

The meetings and planning process of the HMPUC have been overseen by the Atkinson County Emergency Management Agency. The Southern Georgia Regional Commission contracted with the Atkinson County Commission to administer and facilitate the planning process. The Atkinson County Commission and the Cities of Pearson and Willacoochee will adopt the Plan (on approval by GEMA and FEMA) by the resolutions contained in Appendix E.

B. Authority and Responsibility

The Atkinson County Commission and the Cities of Pearson and Willacoochee have authorized the submission of this Plan to both GEMA and FEMA for approval.

As determined by the City and County governments and the HMPUC, the Atkinson 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. The respective jurisdictions will be responsible for the implementation of their specific mitigation activities as proposed in this plan.

C. Prioritization

1. Methodology for Prioritization

In prioritizing the implementing of the action steps identified in this plan, those hazards deemed to pose the greatest threat will be given the primary consideration. In prioritizing the implementation feasibility of the action steps and projects, local governments will take into consideration the additional factors of cost and time. Those activities requiring smaller amounts of money and staff time to implement will be given highest implementation priority. Those steps requiring additional funding for equipment or staff time beyond the normal 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 Analysis

The data provided in Worksheet 3 will be utilized to quantify the number of persons and/or property at risk from each hazard. Combined with the criteria in Worksheet 4, this will

allow local governments to 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 major project. CBA is a well-established method for quantitatively comparing the benefits and costs of mitigation projects. The end result is a Benefit-Cost Ratio (BCR), which is derived from a project's total net present value of benefits divided by the total project cost estimate, which must include all documented project and maintenance costs. The benefits of mitigation projects are avoided damages, disruptions, losses, and casualties. Examples of common benefits include avoided or reduced damages to buildings, contents, or infrastructure; avoided or reduced economic impacts of loss of function of buildings; avoided or reduced displacement costs for temporary quarters; avoided or reduced loss of public services; avoided or reduced loss of net business income; avoided or reduced economic impacts of loss of function of infrastructure; avoided or reduced road or bridge closures; avoided or reduced loss of utility services; and avoided or reduced deaths and injuries.

3. Use of Other Calculations

Additional calculations that were performed included: Availability of potential funding sources; overall feasibility; measurable milestones; public and political support for the proposed actions; and the STAPLEE criteria.

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, grant, and/or loan funds which become available on a limited basis to finance project implementation, such as SPLOST funds or FEMA Pre-Disaster Mitigation Program funds.

D. Incorporation of Local Hazard Mitigation Plan Into Other Plans/Planning Measures

This Plan will be reviewed by Atkinson County and the Cities of Pearson and Willacoochee. The requirements of this Hazard Mitigation Plan will be taken into consideration and will be incorporated into Comprehensive Plans, Five-Year Short-Term Work Program, Capital Improvement Plans, Local Emergency Operations Plans, and all other such Plans as appropriate.

Once this plan is approved, it will be used by the consultants and planning committees responsible for the update process for the County and City Comprehensive Plans, Short-Term Work Programs, and all other plans that could incorporate the requirements of this plan.

To facilitate inclusion of this Plan, the Atkinson County Commission and the Cities of Pearson and Willacoochee will provide a copy of this Plan to the persons and/or committees responsible for writing and updating plans.

Section II. **Evaluation and Monitoring**

A. Method

The Atkinson County EMA Director will be charged with ensuring that this plan is monitored and periodically updated in subsequent years. The method that the Atkinson County EMA will use to monitor the plan and evaluate implementation progress will be the following:

- The Atkinson County EMA will conduct quarterly telephone interviews with the various local governments and area agencies in order to chart their plan progress.
- The EMA Director will hold formal public meetings at least once a year to monitor the progress of the plan implementation and allow the public a forum for expressing concerns, opinions, and ideas.
- Throughout the year, a series of informal meetings will be held in which various aspects of the plan, including monitoring and evaluation, are discussed.

B. Criteria Used To Monitor and Evaluate the Plan

The major criteria to measure plan success will be the number of goals, objectives, and action steps, or components thereof, that have been completed, which in turn will result 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 Atkinson County and Cities of Pearson and Willacoochee residents, it is imperative that public involvement be an integral part of the planning process.

Since adoption of the original Atkinson County Pre-Disaster Mitigation Plan, citizens have been kept involved and apprised of plan progress through such forums as regularly scheduled County Commission 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. When specific issues dictate, public hearings will be conducted, and all other community planning efforts (Comprehensive Plan, Regional Plan, etc.) will afford citizens the opportunity 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 assure that the following steps are taken:

- The public will be directly involved in the update and review of the Plan.
- Copies of the plan will be kept on hand at appropriate agencies throughout the community.

- The plan will be available City, County, and/or Regional Commission websites, and 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

Pursuant to the requirements set forth 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. At least one year prior to the end of the required five-year update 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 that will be tasked with completing the update following the same process used for this update.

No later than the conclusion of the five-year period following approval of the plan update, the 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 7: **Conclusion**

Summary of changes:

- Revised and updated language.

Atkinson County and the Cities of Pearson and Willacoochee have suffered considerable damage in the past from natural hazards. Planning ahead and undertaking structural and nonstructural action steps before a disaster occurs can save lives and property. This philosophy has been the driving force behind the preparation of the Atkinson County Hazard Mitigation Plan.

Education of the population and enhanced warning can decrease the vulnerability of the county's citizens and visitors. Continued and improved public information and communication with the population are important parts of this plan. Because of this planning process, Atkinson County and Cities of Pearson and Willacoochee officials have gained a better understanding of the hazards affecting the community.

As a result of the planning process described in Chapter 1 and the hazard, risk, and vulnerability assessment in Chapter 2, Atkinson County and the Cities of Pearson and Willacoochee have a realistic perspective on the hazards to which the community is exposed. 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

Atkinson County website (<http://www.atkinsoncounty.org/>)

City of Pearson website (<http://www.pearsongeorgia.us/>)

City of Willacoochee website (<http://www.willacoochee.com/>)

Center for Agribusiness & Economic Development. 2015 Georgia Farm Gate Value Report.
(http://caes2.caes.uga.edu/center/caed/documents/GAFGVR2015_DEC16.pdf)

Federal Emergency Management Agency (www.fema.gov)

FEMA National Flood Insurance Program Community Status Book
(<https://www.fema.gov/national-flood-insurance-program-community-status-book>)

Georgia Data. “Agriculture.” (<https://georgiadata.org/agriculture.html>)

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)

National Oceanic and Atmospheric Administration, National Centers for Environmental
Information, Storm Events Database (<http://www.ncdc.noaa.gov/stormevents/>)

National Weather Service. Archived NWS Watch/Warnings at the Iowa State University
Environmental Mesonet (<https://mesonet.agron.iastate.edu/request/gis/watchwarn.phtml>)

Southern Georgia Regional Commission (www.sgrc.us)

USDOT Pipeline and Hazardous Materials Safety Administration. Office of Hazardous Materials
Safety database
(<https://hazmatonline.phmsa.dot.gov/IncidentReportsSearch/IncrSearch.aspx>)

U.S. Drought Monitor (<http://droughtmonitor.unl.edu/>)

United States Census Bureau (www.census.gov)

Appendices

Contents

Appendix A. Hazard Identification, Risk, and Vulnerability (HRV)

Section I. GEMA Worksheet 3A

- I. Thunderstorms/Wind
- II. Hail
- III. Wildfires
- IV. Floods
- V. Drought
- VI. Hurricanes/Tropical Storms
- VII. Tornadoes
- VIII. Severe Winter Storms

Section II. GMIS Critical Facilities Maps

1. Critical Facilities and Hazard Potential for Hazards Affecting the Entire Community
2. Critical Facilities and Wind Zones
3. Critical Facilities and Wildfire Hazard Areas (GMIS data)
4. Critical Facilities and Flood Zones

Section III. Other Maps

- Hurricane MEOW maps
- Tornado track map
- FEMA flood maps
- UNL Drought Monitor Map

Appendix B. Growth and Development Trends

- Census Demographic Summary
- Atkinson County Tax Digest
- City of Pearson Tax Digest
- City of Willacoochee Tax Digest

Appendix C. Other Planning Documents

- Comprehensive Plan Short Term Work Program
- Community Wildfire Protection Plan

Appendix D. Worksheets Used In Planning Process

- Hazard Frequency Table
- GEMA Worksheet #1
- GEMA Worksheet #2
- GEMA Worksheet #4 (for each objective)

Appendix E. Copies of Required Planning Documentation

- I. Public Notices
- II. Sign-in Sheets
- III. Adoption Resolutions

Appendix F. Reports and Inventories

- I. General Historic Reports
 - I. Thunderstorms/Wind (NOAA data)
 - II. Hail (NOAA data)
 - III. Wildfires (GFC data)
 - IV. Floods (NOAA data)

- V. Drought (U.S. Drought Monitor data)
- VI. Hurricanes/Tropical Storms (NOAA data)
- VII. Tornadoes (NOAA data)
- VIII. Severe Winter Storms (NOAA data)

II. Critical Facilities Inventory

Appendix G. HAZUS Report