



# **MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN**

## **White County's Hazard Mitigation Plan Update 2020**

This document was funded in part by the Hazard Mitigation Planning Grant program awarded to the White County Emergency Management Agency by the Georgia Emergency Management Agency to fulfill the requirements of the Federal Disaster Mitigation Act of 2000. White County Hazard Mitigation Plan 2016 was updated by the Hazard Mitigation Plan Committee and was produced by the Emergency Management Planning Staff. For additional information, please contact the White County Emergency Management Agency.

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## **Preface**

### *Mitigation Vision for the Future*

Emergency Managers succeed and fail by how well they follow the following fundamental principles of emergency management, mitigation, prevention, preparedness, response, and recovery. Purposefully, our emergency management forefathers put the word mitigation first as a “means” to prevent or minimize the effects of disasters.

Mitigation is commonly defined as sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects. Hazard mitigation focuses attention and resources on community policies and actions that will produce successive benefits over time. A mitigation plan states the aspirations and specific courses of action that a community intends to follow to reduce vulnerability and exposure to future hazard events. These plans are formulated through a systematic process centered on the participation of citizens, businesses, public officials, and other community stakeholders.

Mitigation forms, or should form, the very foundation of every emergency management agency. For the prevention of disasters in communities, emergency management agencies that adopt mitigation practices to reduce, minimize, or eliminate hazards in their community have found, the vision for the future of emergency management. The Federal Disaster Mitigation Act of 2000 has set the benchmark and outlines the criteria for communities with the vision to implement hazard mitigation practices in their communities.

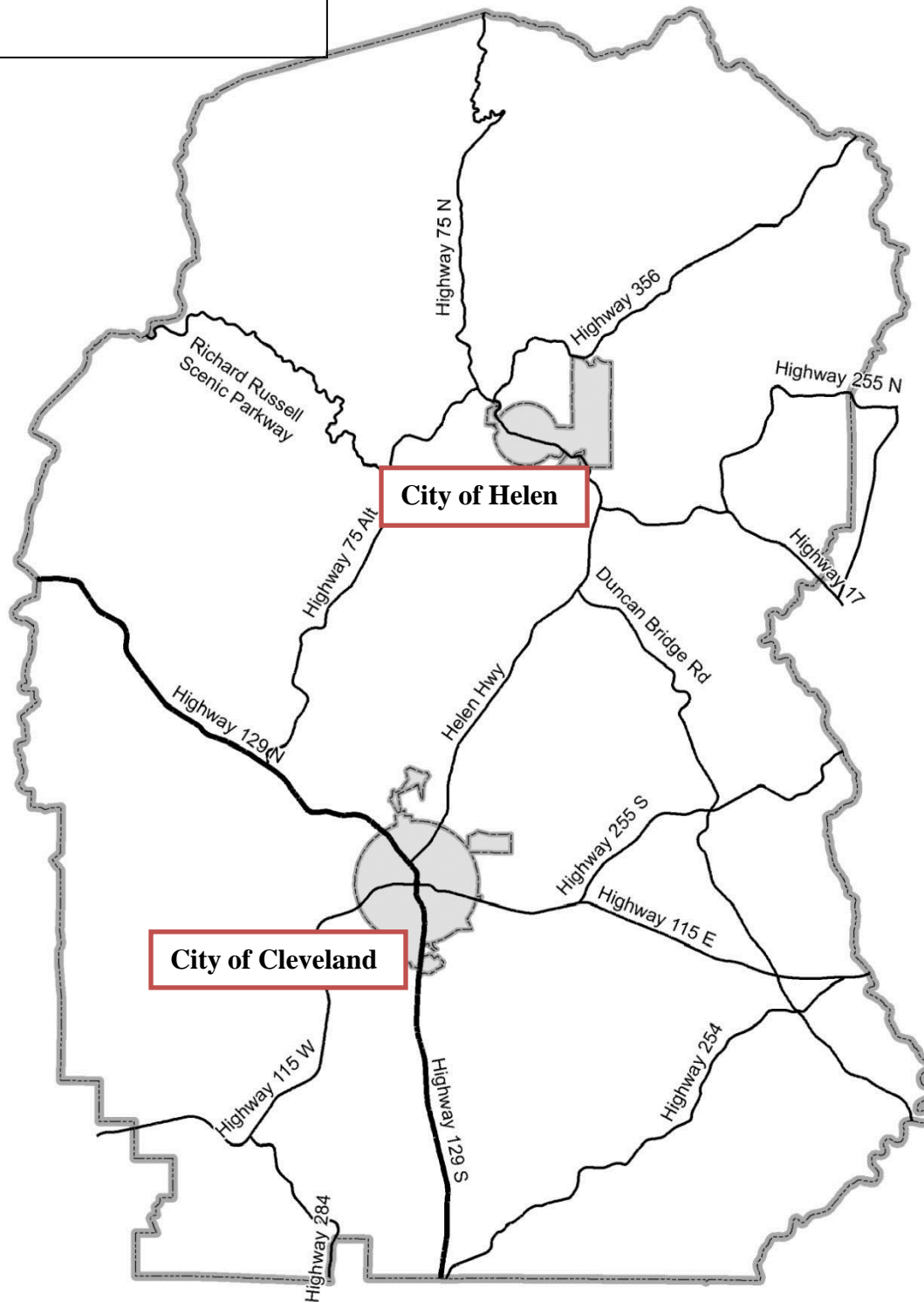
White County and its municipalities realize the benefits achieved by the development and implementation of mitigation plans and strategies in our community. White County’s elected officials, public safety organizations, planners, and many others have proven that by working together towards the development and implementation of this plan, have the vision to implement mitigation practices therefore reducing the loss of life and property in their communities.

The areas covered by this plan include

White County, Unincorporated  
City of Cleveland  
City of Helen



**Hazard Mitigation Plan  
Participating Jurisdictions**



## Table of Contents

<b>Chapter 1 - Introduction</b>	<b>7</b>
<b>Chapter 2 - County Profile</b>	<b>17</b>
<b>Chapter 3 - Hazard Profile</b>	<b>32</b>
<b>Chapter 4 – Hazard Mitigation Strategies</b>	<b>99</b>
<b>Chapter 5 – Maintenance/Implementation</b>	<b>123</b>
<b>Appendices</b>	<b>133</b>
<b>Appendix A – Critical Facilities</b>	<b>134</b>
<b>Appendix B - Critical Facility Vulnerabilities</b>	<b>138</b>
<b>Appendix C - 2016 Mitigations Goals and Strategies     Completion</b>	<b>142</b>
<b>Appendix D - Wildfire Community Response Plan-2018</b>	<b>143</b>
<b>Appendix E - Committee and Community Meeting and     Involvement Documentation</b>	<b>167</b>
<b>Appendix F - Reference Maps for Mitigation</b>	<b>200</b>
<b>Participating Jurisdictions</b>	
<b>Emergency Services Facilities</b>	
<b>Communication Facilities</b>	
<b>Schools</b>	
<b>Shelters</b>	
<b>Utility Facilities</b>	
<b>Elderly Care Facilities</b>	
<b>HAZMAT Facilities</b>	
<b>Land Use- 2015</b>	
<b>Existing Warning Sirens</b>	
<b>Structures in 100 Year Flood Plane</b>	
<b>Known Tornado Tracts</b>	

**Category I-Dam Failure Projections-NE**  
**Category I-Dam Failure Projections-SE**  
**Category I-Dam Failure Projections-SW**  
**Critical Facilities-Public and Governmental**

<b>Appendix G - Glossary</b>	<b>217</b>
<b>Appendix H - Resource References</b>	<b>219</b>
<b>Appendix I - Resolutions of Adoption</b>	<b>220</b>
<b>Concurrence</b>	<b>223</b>
<b>Certification of Review</b>	<b>224</b>
<b>Record of Changes &amp; Updates</b>	<b>225</b>

**CHAPTER ONE**  
**-**  
**INTRODUCTION**

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Introduction**

The White County Hazard Mitigation Plan is the first phase of a multi-hazard mitigation strategy for the entire community. This plan encourages cooperation among various organizations and crosses political sub-divisions. As written, this plan fulfills the requirements of the Federal Disaster Mitigation Act of 2000. The Federal Disaster Mitigation Act of 2000 provides federal assistance to state and local emergency management agencies and other disaster response organizations to reduce damage from disasters. The Act is administered by the Georgia Emergency Management Agency (GEMA) and the Federal Emergency Management Agency (FEMA).

It is important that state and local government, public-private partnerships, and community citizens can see the results of these mitigation efforts; therefore, the goals and strategies need to be achievable. The White County Hazard Mitigation Plan Update Committee identified the following goals during plan development:

- GOAL 1    Protect the public health and safety.
  
- GOAL 2    Reduce and eliminate (to the extent possible) community exposure to natural and manmade hazard events.
  
- GOAL 3    Reduce loss and damage to private property and public infrastructure resulting from natural and/or manmade hazards.
  
- GOAL 4    Maintain continuity of public and private sector operations during and after hazard events.
  
- GOAL 5    Respond promptly, appropriately, and efficiently in the event of natural or manmade hazards.

This plan complies with all requirements and scope of work as described in White County's Hazard Mitigation Grant application.



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Authority**

In the past, federal legislation has provided funding for disaster relief, recovery, and hazard mitigation planning. The Disaster Mitigation Act of 2000 is the latest legislation to improve the planning aspect of that process. The Act reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. The Act establishes a pre-disaster hazard mitigation program and designates new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP). Section 322 of the Act identifies the new requirements for planning activities and increases the amount of HMGP funds available to states that have developed a comprehensive mitigation plan prior to the disaster.

State and local communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. Local mitigation plans must demonstrate that their proposed mitigation measures are based on a sound planning process that accounts for the risk to and the capabilities of the individual communities. To implement the new DMA 2000 requirements, the Federal Emergency Management Agency (FEMA) prepared an Interim Final Rule, published in the Federal Register on February 26, 2002, at 44 CFR Parts 201 and 206, which establishes planning and funding criteria for states and local communities.

Developed in accordance with current state and federal rules and regulations governing local hazard mitigation plans, White County's Updated Hazard Mitigation Plan will be brought forth to each participating jurisdiction in White County to be formally adopted. The plan shall be routinely monitored and revised to maintain compliance with the following provisions, rules, and legislation:

Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (P.L. 106-390); and

FEMA's Interim Final Rule published in the Federal Register on February 26, 2002, at 44 CFR Part 201.

## **Funding**

White County was awarded a \$10,000 Hazard Mitigation Planning Grant by the Georgia Emergency Management Agency for the update of White County's 2016 Hazard Mitigation Plan. The grant requires a 15% match by White County, which was fulfilled by utilizing "in-kind" services. In-kind service documentation is available upon request.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Scope**

The scope of the White County Hazard Mitigation Plan Update encompasses all areas of White County, including the City of Cleveland and the City of Helen. The Plan identifies all natural and technological hazards that could threaten life and property in White County. The scope of this plan includes both short and long-term mitigation strategies with implementation and possible sources of project funding.

The Hazard Mitigation Plan Update is organized to incorporate the requirements of Interim Final Rule 44 CFR 201.4.

**Chapter One** includes an overview of the Hazard Mitigation Plan Update, the overall goals of the plan, and details of the planning process as required by Interim Final Rule 44 CFR 201.4(c)(1).

**Chapter Two** of the plan details the White County profile, including the demographics, municipalities, and history of the county.

**Chapter Three** identifies the risk assessment process, past natural hazard events with associated losses, and current natural hazard risks. Potential losses are also analyzed as required by Interim Final Rule 44 CFR 201.4(c)(2). Additionally, Chapter Three identifies and analyzes potential technological hazards faced by White County.

**Chapter Four** identifies White County's hazard mitigation goals and objectives, mitigation strategies and actions, and sources of potential funding for mitigation projects as required by Interim Final Rule 44 CFR 201.4(c)(3).

**Chapter Five** identifies the plan maintenance and implementation strategies. The process for evaluation of the hazard mitigation plan. Implementation progress is also detailed as required by Interim Final Rule 44 CFR 201.4(c)(4) and (5).

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Purpose**

The purpose of the White County Hazard Mitigation Plan Update is to:

- Protect life, promote safety, and preserve property by reducing the potential for future damages and economic losses that result from natural and technological hazards.
- Make communities in White County safer places to live, work, and play;
- Qualify for grant funding in both the pre-disaster and post-disaster environments;
- Speed recovery and redevelopment following future disaster events;
- Demonstrate a firm local commitment to hazard mitigation principles; and
- Comply with state and federal legislative requirements for local multi-jurisdictional hazard mitigation plans.

## **Mission**

The mission of the White County Hazard Mitigation Committee is to work alongside and with local, state, federal and community groups, to identify hazards and vulnerabilities of disasters and ways to mitigate the effects to save lives, protect property and reduce the potential impacts of the hazards.

Our local governments combined with the state, federal and community partners working together can achieve this goal.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Consistency with Federal and State Mitigation Policies**

The plan is intended to enhance and complement state and federal recommendations for the mitigation of natural and technological hazards in the following ways:

- Substantially reduce the risk of life, injuries, and hardship from the destruction of natural and technological disasters on an ongoing basis.
- Create a greater awareness to the public about the need for individual preparedness and about building safer, more disaster resistant communities;
- Develop strategies for long-term community sustainability during community disasters; and,
- Develop governmental and business continuity plans that will continue essential private sector and governmental activities during disasters.

The Federal Emergency Management Agency publishes many guidance documents for local governments for mitigating natural disasters. The updated White County Hazard Mitigation Plan fully recognizes, adopts, incorporates, and endorses the following principles:

- Develop a strategic mitigation plan for White County;
- Enforce current building codes;
- Develop incentives to promote mitigation;
- Incorporate mitigation of natural hazards into land use plans;
- Promote awareness of mitigation opportunities and programs throughout our community on a continual basis; and,
- Identify potential funding sources for mitigation projects.

The private sector is often an overlooked segment of the community during disasters. It is vital that this sector of a community is included in mitigation efforts that are consistent with state and federal recommendations, such as the following:

- Develop mitigation incentives with insurance agencies and lending institutions;
- Encourage the creation of a business continuity plan for the continuance of commerce during disasters; and,

# White County Multi-Jurisdictional Hazard Mitigation Plan

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- Partner with businesses to communicate with customers about the hazards in our community and possible solutions.

Individual citizens must be made aware of the hazards they may encounter. Additionally, they must be educated on how to protect themselves from the hazards they face. They must be shown that mitigation in their community is an important part of reducing loss of life and property in their community. Their support is critical to the success of any mitigation effort. The updated White County Hazard Mitigation Plan supports the following FEMA recommendations regarding individual citizens:

- Become educated on the hazards that you and your community may encounter;
- Become part of the process by supporting and encouraging mitigation programs that reduce vulnerability to disasters; and,
- An individual's responsibility is to safeguard his/her family, as well as themselves, prior to a disaster event.

## **Plan Review**

### [Requirement §201.6\(c\)\(1\)](#)

The White County Emergency Management Agency had the primary responsibility for collecting updated information and presenting data to the committee. The approved 2016 Hazard Mitigation Plan was provided to each member of the Hazard Mitigation Plan Update Committee.

Each chapter was reviewed with updated hazard, risk, and vulnerability data; updated critical infrastructure information; and revised mitigation strategies based upon whether the strategy was completed, needed to be modified, is an ongoing strategy, or no longer applies. Irregularly attending participants were kept informed with emails containing the updated version of the plan.

## **White County Mitigation Meeting Dates:**

**(NOTE: Due to COVID-19 Restriction's meetings were held by Zoom or Email Exchange)**

Tuesday, October 2, 2018,	Kick-Off Meeting
Thursday, January 31, 2019, 10AM	Hazards Risk Committee
Tuesday, February 5, 2019, 130PM	Critical Facilities Committee
Thursday, March 7, 2019, 130PM	Hazards Risk Committee
Tuesday, May 4, 2021, 10AM	Hazards Risk Committee
Tuesday, May 4, 2021, 2PM	Critical Facilities Committee
Tuesday, May 18, 2021, 4PM	Public Meeting
Tuesday, May 18, 2021, 6PM	Public Meeting
Monday, June 7, 2021, 6PM	Public Meeting, Planning Commission

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Hazard Mitigation Plan Update Committee**

Requirement §201.6(b)(2)

The following members, representing various jurisdictions, city and county departments, and community organizations and businesses, participated in the update of White County's 2016 Hazard Mitigation Plan.

White County Hazard Mitigation Plan Update Committee – 23 Participants, October 2, 2018

Agency	Representative	Title
Board of Commissioners	<b>Shanda Murphy</b>	<b>County Clerk</b>
WC CERT	<b>Roy Stephens</b>	<b>Team Coordinator</b>
WC Maintenance	<b>Ken Payne</b>	<b>Director</b>
WC Planning Department	<b>Harry Barton</b>	<b>Director</b>
WC Fire Services	<b>Norman Alexander</b>	<b>Chief</b>
WC Fire Services	<b>Seth Weaver</b>	<b>Firefighter</b>
WC Fire Services	<b>Ana Newberry</b>	<b>Office Manager</b>
WC Emergency Management	<b>David Murphy</b>	<b>Director</b>
WC Emergency Management	<b>Cami Downey</b>	<b>Administrative Assistant</b>
WC Finance Department	<b>Jodi Ligon</b>	<b>Finance Director</b>
WC Public Works	<b>Dave Cangemi</b>	<b>Director</b>
WC Senior Center	<b>Diane Dyer</b>	<b>Office Coordinator</b>
WC Sheriff's Office	<b>Daren Welborn</b>	<b>Captain</b>
WC Water Authority	<b>Edwin Nix</b>	<b>Director</b>
WC Historical Society	<b>John Erbele</b>	<b>Board Member</b>
Cleveland City Administrator	<b>Tom O'Bryant</b>	<b>City Administrator</b>
Helen City Police	<b>Brian Stephens</b>	<b>Chief</b>
Helen City Fire	<b>Jody Prickett</b>	<b>Chief</b>
Helen City Planning	<b>Darrell Westmoreland</b>	<b>Director</b>
Helen Public Works	<b>Ross Hewell</b>	<b>Director</b>
Truett McConnell University	<b>Dr. Gary Jarnagin</b>	<b>Finance Director</b>
Truett McConnell University	<b>Justin Coalley</b>	<b>Facilities Management</b>
GEMA	<b>Kimberly Angel</b>	<b>Mitigation Specialist</b>

White County convened the Hazard Mitigation Plan Update Committee comprised of representatives from various participating jurisdictions. The Committee worked with White County EMA Planning Staff and provided input at key stages of the process. Efforts were made to involve municipal, city, and county departments and community organizations, which might have a role in the implementation of the mitigation actions or policies. These efforts included invitations to attend meetings, e-mail updates, and opportunities for input and comment on all draft deliverables.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Hazards Risk Committee:**

Agency	Representative	Title
Cleveland Police Dept	John Foster/Jeff Shoemaker	Chief
Helen City Fire	Jody Prickett	Chief
Helen City Police	Brian Stephens	Chief
WC Emergency Management	Cami Downey	Administrative Assistant
WC Fire Services	Seth Weaver	Firefighter
WC Sheriff's Office	Daren Welborn/Jim Couch	Captain

## **Critical Facilities Committee:**

Agency	Representative	Title
City of Cleveland	Tom O'Bryant	City Manager
City of Helen Public Works	Ross Hewell	Director
City of Helen Planning	Darrell Westmoreland	Director
Truett McConnell University	Justin Coalley	Facilities Management
WC Maintenance	Ken Payne	Director
WC Public Works	Dave Cangemi	Director
Helen City Police	Brian Stephens	Chief
WC Emergency Management	Cami Downey	Administrative Assistant
WC Historical Society	John Erbele	Board Member
WC Fire Services	Seth Weaver	Firefighter
WC Water Authority	Edwin Nix	Director

In addition to the White County Hazard Mitigation Plan Update Committee, all surrounding counties – Habersham, Towns, Union, Hall, and Lumpkin – were provided a copy of this plan for their review and comment through email on April 21, 2021. This plan was provided to each County EMA office for review.

## **Public Participation**

[Requirement §201.6\(b\) \(1\)](#)

[State Requirement Element F2](#)

As citizens become more involved in decisions that affect their safety, they are more likely to gain a greater appreciation of the natural hazards present in their community and take the steps necessary to reduce their impact. Public awareness is a key component of any community's overall mitigation strategy aimed at making a home, neighborhood, school, business, or city safer from the potential effects of natural hazards.

# White County Multi-Jurisdictional Hazard Mitigation Plan

Participation from local organizations and businesses during the update process included: American Red Cross, Habersham EMC, Georgia Power, and Truett McConnell University.

The White County Hazard Mitigation Plan Update Committee took it upon themselves to ensure the processes undertaken for the development, implementation, and maintenance of the White County Hazard Mitigation Plan Update adequately considered public needs and viewpoints.

A list of public outreach initiatives can be found below:

- ✓ Prior to every meeting, an email invitation was sent to all committee members and other stakeholders encouraging their attendance and encouraging them to pass along the invitation to any additional personnel within their organization or other organization that may benefit the update of the White County Hazard Mitigation Plan.
- ✓ A Public Meeting was held on May 18, 2021, at 4PM and 6PM to provide the public an opportunity to review the plan and provide comment. There were no public comments or recommendation provided prior to, during, or after the Public Meeting.
- ✓ Additionally, posting on social media, local radio stations, newspaper, announcements at public meeting were completed to solicit feedback from the citizens of White County. A survey monkey was posted on the county website for responses to established questions. See Appendix E for screen shots, survey, and sign-in sheets of public meeting.





**CHAPTER TWO**  
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**COUNTY PROFILE**

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **History**

White County, the 123<sup>rd</sup> county formed in Georgia, was created in 1857 from a part of Habersham County following its acquisition from the Cherokee Indian Nation by a treaty calling for the removal of all Indians from North Georgia. The county was named for Newton County Representative David T. White, who helped a Habersham representative successfully attain passage of an act creating the new county. Gold was found in White County in the late 1820s on the Nacoochee River, now known as Duke's Creek. This area originally belonged to the Cherokee Indians. However, miners and settlers pressured the U.S. government to such a degree that eventually the Cherokee were totally removed from North Georgia to a reservation in Oklahoma.

The county is 241 square miles in area which is 0.4% of Georgia's total area. 63 square miles or 26% of this area is the Chattahoochee National Forest and 1.5 square miles is reserved for state parks. White County is in the 9<sup>th</sup> U. S. Congressional District, the 51<sup>st</sup> State Senatorial District and the 8<sup>th</sup>, 10<sup>th</sup>, and 27<sup>th</sup> State House Districts. The county seat is Cleveland. The 2017 estimate of the population was 29,453 citizens countywide (including the Cities of Cleveland and Helen).

White County is relatively close to several large regional cities, including Gainesville and Athens. The major highways serving White County include State Routes 17, 75, 115, 129, 254, 255, 356 and 384. Roadways in the area are generally in good condition; however, some are difficult and slow to travel due to curves and steep elevations.

White County has several historic sites that draw thousands of visitors annually; The Sautee-Nacoochee Indian Mound, Nora Mill, Stovall Covered Bridge (one of 13 authentic covered bridges remaining in the state), remains of gold mines, historic cemeteries, and State Parks which include Hardman Farm, Smithgall Woods, Unicoi State Park. In proximity is the Appalachian Trail, many hiking trails, waterfalls and camping areas, and wineries making White County a favorite weekend getaway for residents of Atlanta and the highly developed metro area.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Demographics**

The population of White County grew by 13.462% from 27,144 in 2010 to an estimated 30,798 full-time and 2800 seasonal residents in 2019. During that same period, Cleveland grew to over 3900 residents while Helen’s population increased slightly too around 574 residents. While counties to the south have experienced significantly rapid growth within the past decade, White County has maintained more stable growth patterns. It was recognized early on that if growth concerns that are expected in the future are not discussed now, White County will be behind other counties in our area. Efforts were begun to assure that the citizens have opportunities to become more informed and participate to a higher degree in the planning and decision-making process of their government. Meetings concerning comprehensive land use planning, mountain protection, and other regulations have been filled with residents both interested and concerned about the direction of the county.

	2000 Census	2010 Census	2019 Estimation
<b>Population</b>	19,944	27,144	30,798
<b>White</b>	18,979	25,824	28,364
<b>African American</b>	432	457	616
<b>Hispanic/Latino</b>	311	647	1,047
<b>Asian</b>	102	124	185
<b>American Indian</b>	80	131	185
<b>Two or More Races</b>	214	369	523
<b>Median Age</b>	38.3	44.5	46.1
<b>Median Household Income</b>	\$ 36,084	\$ 41,756	\$ 54,253
<b>Person Below Poverty Line</b>	10.5	17.2	19.3
<b>Housing Units</b>	9,454	16,062	16,409

	2000 Census	2010 Census	2019 Estimation
<b>Cleveland</b>	1,907	3,410	3,920
<b>Helen</b>	430	510	574

# White County Multi-Jurisdictional Hazard Mitigation Plan

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The median household income in White Co. is \$54,253 (2019 data), up from \$41,756 in 2010. Much of this can be attributed to the resort quality of Helen as well the scenic attractions provided by the north Georgia mountains and Chattahoochee River. Many of the new residents have been drawn to the area from Atlanta, and northern states because of the climate and quality of life White County has to offer.

White County has also become a major tourism area for North Georgia. A survey of the population reveals that a large portion of growth within the county is because of tourists that have decided to become full-time and seasonal residents. Helen's Oktoberfest is recognized as one of the nation's largest, while Cleveland's Babyland General Hospital, where Cabbage Patch Kids are "born," is also a large draw for tourism. White County is home to seven wineries that make up the Unicoi Wine Trail. Combined the wineries have a total of approximately 70 acres of a wide variety of grapes. Also, our area holds a significant place within the history of the Cherokee Indian Nation, and it is among one of the top historical areas in the state.

The City of Cleveland, population in 2019 estimated to be 3920, is in the geographic center of the county. The city encompasses 3.2 sq. miles of land with no significant bodies of water. The city, named for General Benjamin Cleveland, a War of 1812 figure and grandson of Colonel Benjamin Cleveland, a Revolutionary War figure, is the county seat.

Cleveland is home to Truett McConnell University, a private institution, with an enrollment of 2604 students in 2019.

White County Public Charter School System is home to 7 schools. We are among the top 15 school systems based on the state College and Career Readiness Index. All our elementary schools have been named Georgia High Performing and High Progress Schools by the Georgia Department of Education and the Governor's Office of Student Achievement.

The City of Helen is in the northeastern portion of White County, situated on the banks of the Chattahoochee River. A former logging town that was in decline, the city resurrected itself by becoming a replica of a Bavarian alpine village. The design standards are mandated by local Land Use regulations. Tourism is the major industry in Helen with the beautiful autumn leaves and Oktoberfest drawing visitors from all over the world. Approximately 4,000-8,000 people visit each weekend during the peak season; with 1.5 million annual visitors. One of the largest hot-air balloon races in the United States is held just inside the city every June.

The population of the city in 2019 was estimated to be 574. The total land mass is 2.11 square miles and 2.7 miles of the Chattahoochee River as its major body of water.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Economy**

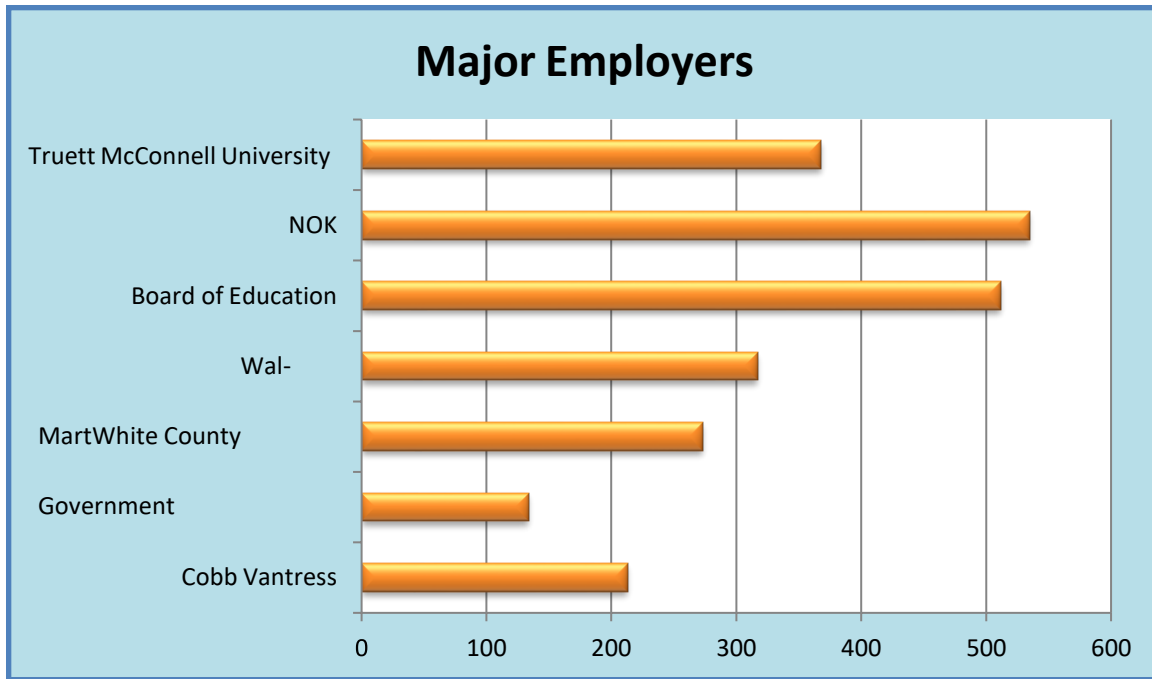
Agriculture is the largest industry in White County, valued at \$93.4 million of raw product sold off the land in the county. The biggest sector of agriculture would be the poultry industry totaling 94% of that total figure, and of that 94% the broiler production alone is estimated at \$59.4million. The remaining balance of other agriculture production is the culmination of livestock, viticulture, and various row crops. While the number of row crops agriculture and livestock farms are decreasing, the poultry industry shows promise for holding strong in the future.

Tourism is the second largest industry in White County, valued at \$67.46 million, including both the cities of Cleveland and Helen. Most of the employers representing the tourism industry are small businesses with 20 or fewer employees. This group includes retail sales, hotel/motels, and food services. In 2008 the construction industry, which was the second largest, began a marked decline due to the economic downturn. Manufacturing, while once a major employer, now ranks as one of the smaller industries.



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Transportation**

There are 4 major highways within White County. These are US Highway 129 providing north and southbound corridors and State Highway 115, providing service for east and westbound traffic. State highways 75 and 356 provide transportation spurs to the two major arteries in a northeast and southeast direction, respectively. The newly opened Appalachian Parkway bypasses the City of Cleveland on the west side of the city. Phase 1 opened in November of 2015, Phase 2 opened July of 2017 and Phase 3 is slated for completion in late 2021 totaling approximately 5 miles of four lane highway, the first in White County.

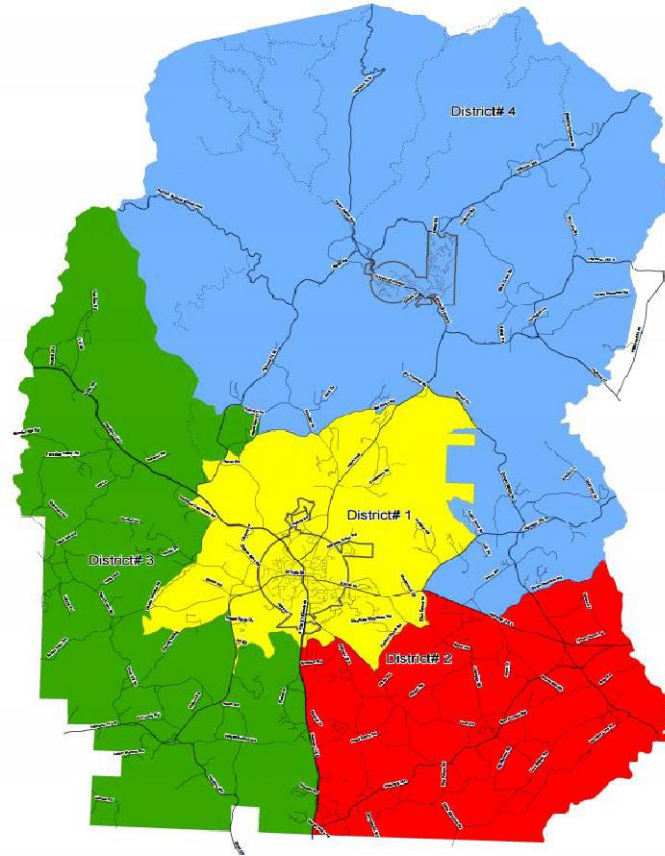
There is no rail system serving the community, however, there is one private airfield servicing the owners of the property with a grassed runway for small single-engine aircraft.

## **Government**

The form of government specified in the county charter is considered a County Manager form of Government. The County Manager is appointed by the Board of Commissioners of White County which is a 5-member board. The Board is comprised of a Commission Chairman, serving as an at large member, and four members each one elected from each of four districts.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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The main duties of the County Commission is to pass local laws, known as ordinances, that regulate a variety of items that promote the health, safety and welfare of the citizens covered by them; to pass a balanced budget each year that funds its own operations as well as to allocate funds to the four Constitutional Officers, other elected officials, the courts and a variety of programs put in place by the State but funded locally; to ensure that necessary services are funded and provided; to set the millage rate for the county government and many other secondary duties.

The County Commissioners sets the county millage rate each year to fund a portion of the county budget. They also receive the millage rate that is set by the Board of Education both of which are submitted to the Georgia Department of Revenue each year.

The County Commissioners receives, deliberates, and passes local ordinances each year and amends many others to reflect the changing times. Both require that a public hearing be held, and these are normally held during the regular Commission meetings. They also pass several resolutions, proclamations, and policies throughout the year. Generally, with some exceptions, the County Commissioners can pass any local law, ordinance, and policy they feel is needed for the county so long as it does not violate the laws of the State or Federal government or the Constitutional rights of any individual. These are researched thoroughly by legal staff before ever being brought to a hearing.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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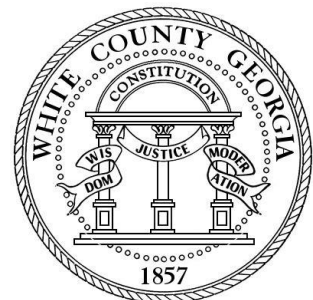
The County Commissioners, under management authority of the County Manager, provides many services that citizens expect through the revenues that are raised annually. These include Fire and Ambulance services; E-911 dispatch services; Building Inspections; Code Enforcement; Public Library; Parks and Recreation; Elections Management; Public Works; and agencies that service all these such as Building Maintenance, Finance, Human Resources, and IT. The budget also funds state mandated services, under management authority of Constitutional Officers and Appointed Boards such as Law Enforcement and Detention; Superior, Probate, Magistrate and Juvenile Courts; Tax Assessment and Tax Collection Services; District Attorney and some smaller funding for local agencies under the State of Georgia. White County is a member of the Enotah Judicial Circuit along with Lumpkin, Towns and Union Counties.



The City of Cleveland and the City of Helen both are presided over by a Mayor and Council form of government, with 4 council members, and one mayor. The City of Cleveland's Council members each represent one ward but are elected at-large by all citizens of the city. The Mayor is elected at-large by the voting public. The City of Helen elects 5 members, referred to as Commissioners, all at-large, and the Mayor is appointed by majority vote of the body. Both cities have a City Manager form of government providing essential municipal services such as Fire and Police protection; Building Inspections and Code Enforcement; Public Works and City Utilities such as wastewater treatment.



All elected members of these respective governments serve part time.





# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Incorporation of Existing Plans, Studies, and Resources**

Requirement §201.6(b)(3)

State Requirement Element F3

The Hazard Mitigation Planning Committee recognized the needs to integrate other plans, codes, regulations, procedures, and programs into this Hazard Mitigation Plan. White County did not have the opportunity to incorporate the original HMP’s strategy into other planning mechanisms but will now ensure that during the planning process for new and updated local planning documents such as the comprehensive plan or local emergency operations plan, the EMA Director will provide a copy of the HMP to the appropriate parties, so incorporation or as a reference, to be considered in future updates. All goals and strategies of new and updated local planning documents should be consistent with, and support the goals of, the HMP and not contribute to increased hazards in the affected jurisdiction(s).

### Record of Review

Existing Plan Mechanisms	Reviewed? (YES/NO)	Method of Use In Hazard Mitigation Plan
Comprehensive Plan (Multi-Jurisdictional)	Yes	Development Trends
Local Emergency Ops Plan	Yes	Identifying hazards; assessing vulnerabilities
Building and Zone Codes/Ordinances	Yes	Mitigation Strategies
Cleveland City Building/Zone Code	Yes	Mitigation Strategies
Helen City Building/Zone Code	Yes	Mitigation Strategies
Mutual Aid Agreements	Yes	Assessing Vulnerabilities
Automatic Aid Agreements	Yes	Assessing Vulnerabilities
State Hazard Mitigation Plan	Yes	Risk Assessment
Land Use Maps	Yes	Assessing Vulnerabilities; Development Trends; Future Growth
Critical Facilities	Yes	Locations
Community Wildfire Protection Plan	Yes	Mitigation Strategies
Solid Waste Management Plan	Yes	Mitigation Strategies

The jurisdictions included in the incorporation of, or as reference within include unincorporated White County, City of Cleveland, and City of Helen.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Utilities**

There are two electric power providers serving our communities. Habersham Electric Member Co-Op provides service for most of the unincorporated portions of the county while Georgia Power Company serves the City of Cleveland and the City of Helen, and a corridor in between.

The cities provide water and sewer to the citizens within their boundaries and the City of Cleveland has a dedicated sewer line that serves the Telford Hulsey Industrial Park on US Highway 129, in the southern part of the county.

The White County Water Authority provides water service to approximately 2200 customers in the unincorporated areas of White County. They currently have 185 miles of water line operational and can provide secondary water supply to the Cities of Cleveland and Helen should the need arise.

Telephone Service for all White County and its municipalities is provided by Windstream, and there are numerous voices over internet protocol (VOIP) and wireless providers in the area.

The Atlanta Gas Light Company provides natural gas pipelines into the county. At the time of this plan update there were 36 miles of pipeline completed, serving both residential and commercial customers.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Topography**

Located in the piedmont of the Blue Ridge Mountains, which makes up the southernmost part of the Appalachian Mountain range, White County is blessed with a wide range of topographical features.

The northern portion of the county provides rugged and rounded ridges, weathered peaks that vary in elevation from 1600 to over 4400 feet (Trey Mountain), displaying the natural beauty of the area by providing spectacular views. Yonah Mountain is the most prominent geological feature in White County and rises almost 1600 feet above the surrounding terrain.



Central and southern White County consists of gently rolling hills and broad valleys in stark contrast to the soft blue haze wrapped landscape of the higher elevations in the northern part of the county.

The Geology of northeast Georgia contains a fascinating array of rocks and minerals, and broad watersheds and basins. Veins of gold and asbestos and the headwaters of the Chattahoochee River make up only a few of the fascinating geologic features found here.

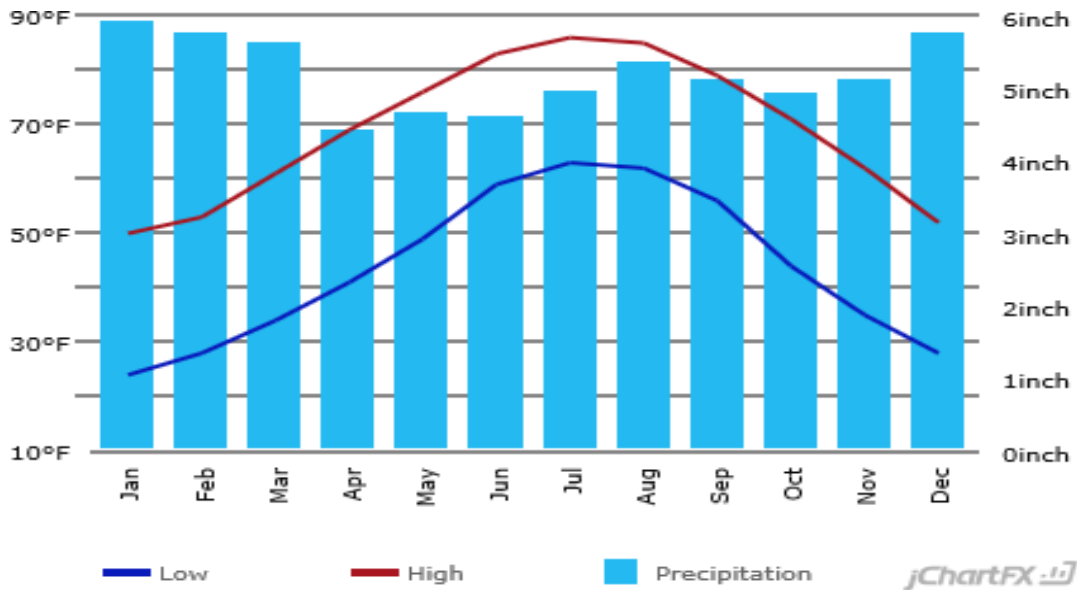
## **Climate**

White County's climate is as distinctively diverse as its land. The mountain valleys average 6-8 degrees cooler than the southern part of the county. The average rainfall for White County is 65.76 inches. Average winter temperature is 39.0 degrees in contrast with average summer temperatures of 72.0 degrees proving this to be a moderate climate with four distinct seasons.

# White County Multi-Jurisdictional Hazard Mitigation Plan

Our topography has a far-reaching effect on the weather. When conditions are correct, they form something of an orographic-lift elevator for storms that move from the south and southwest toward the northeast, intensifying some storm systems as they move up the steep elevation changes of the southerly slopes of the Appalachian/Blue Ridge Divide which forms White County's northern boundary. A second wide-ranging effect is simply known as "The Wedge" to meteorologists. This is a body of relatively dry air that forms on the eastern slopes, evaporating moisture of storms that arrive from the west, often providing a severe weather barrier.

Our Warm days outnumber our cool days 234 vs 131 days (below 50°), respectively. This alone provides an attraction to many residents of Atlanta and regions further south.



White County Averages  
Detail 3-1

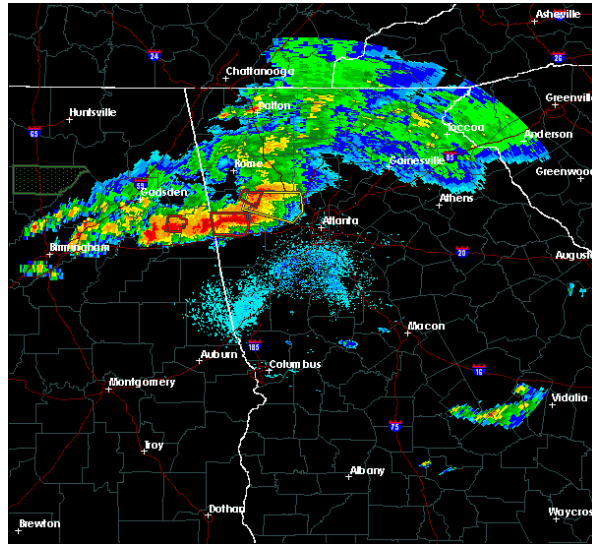
## NFIP Compliance

JURISDICTION	PARTICIPATING?	PARTICIPATION DATE
WHITE COUNTY	YES	6/11/1976
CLEVELAND	YES	4/11/1975
HELEN	YES	9/6/1974

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Past Hazards



White County has faced many hazards in its long history. In the last 50 years, White County has been subjected to 34 documented Severe Thunderstorm events. These events include torrential rainfall, hail, thunderstorm-force winds, and lightning.

Tornadoes, which can sometimes spawn from severe thunderstorms, have also occurred in White County, although with much less frequency. There have been 6 documented tornadoes in the last fifty years in White County.

Because of heavy rainfall either within or upstream from White County, flooding has occurred in the past as well. Documentation of 6 flooding events exist within the National Climactic Data Center of the National Weather Service for White County.

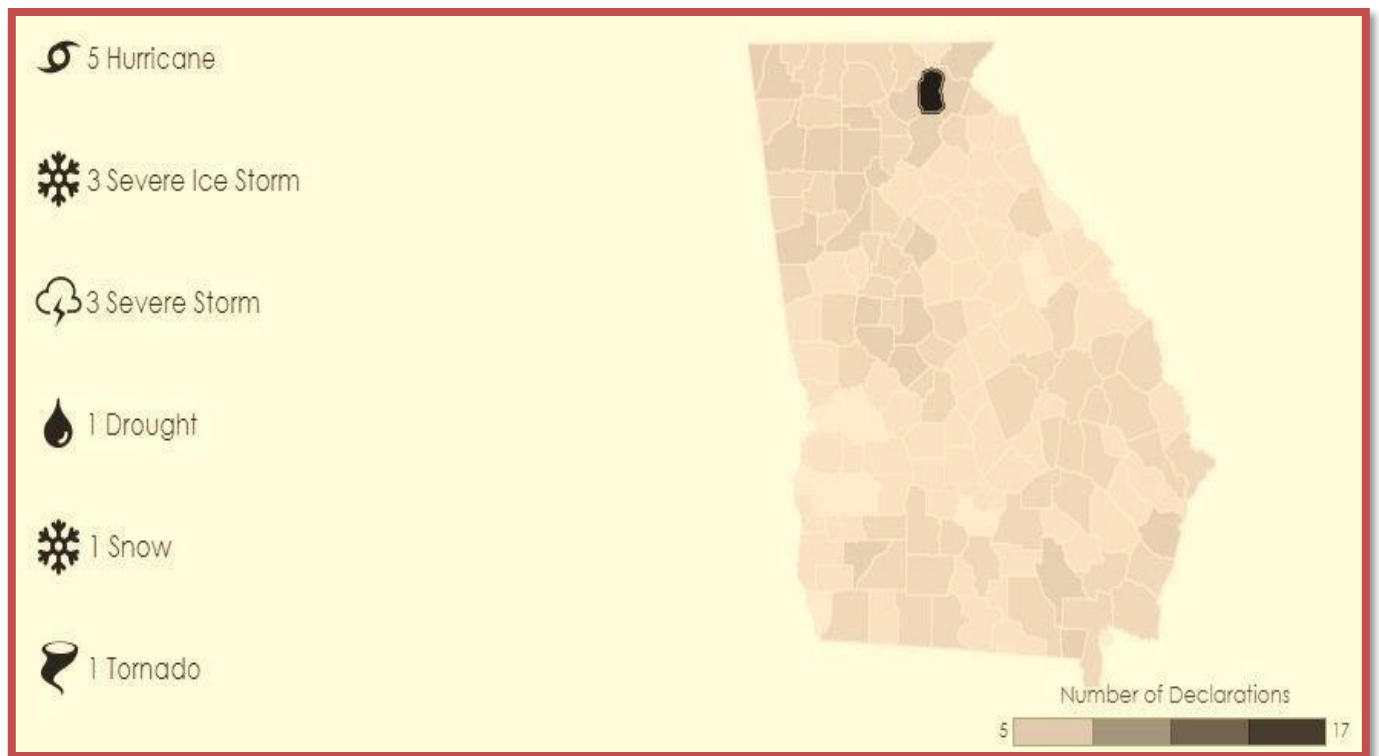
Winter storms and heavy snowfall have affected White County infrequently in the last 50 years. These events are not a yearly occurrence and typically do not have the pre-planning in place when compared to Northern and Western states who see this type of weather phenomena regularly. The NCDC record 65 documented winter storm or heavy snow events for White County with 14 of those having occurred in the last 5 years.

White County has been plagued by other less severe or less frequent hazards in the past. These hazards include, but are not limited to, the following: drought, landslides, and wildfires.

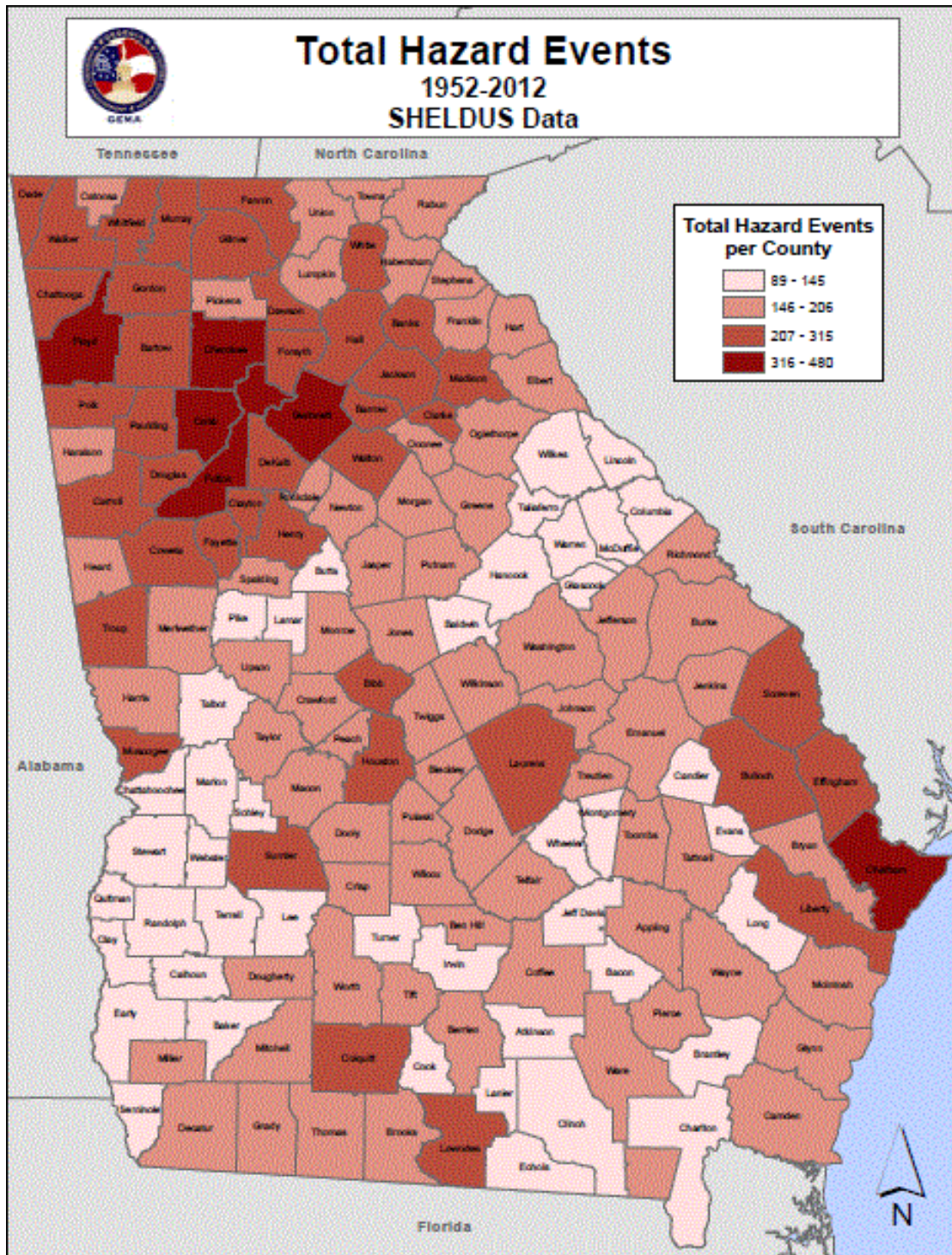
# White County Multi-Jurisdictional Hazard Mitigation Plan

## **Past Events – Presidential Declarations**

- 2020, Hurricane Zeta
- 2017, Hurricane Irma
- 2015, Severe Winter Storm
- 2014, Severe Winter Storm
- 2011, Severe Storm, Tornadoes-Flooding
- 2005, Hurricane Katrina
- 2004, Hurricane Ivan
- 2000, Severe Winter Storm
- 1998, Severe Storm, Flooding
- 1995, Hurricane Opal
- 1994, Severe Storm, Tornadoes-Flooding
- 1993, Severe Winter Storm, Blizzard
- 1977, Drought



# White County Multi-Jurisdictional Hazard Mitigation Plan



Source: 2014 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

**CHAPTER THREE**  
-  
**HAZARD PROFILE**



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Summary of Updates for Chapter Three

The following table provides a description of each section of this chapter, and a summary of the changes that have been made to the White County Hazard Mitigation Plan 2020.

Chapter 3 Section	Updates
<b>Risk Assessment</b>	Expanded the explanation of the Risk Assessment Added an explanation of each part of the Hazard Information
<b>Natural Hazard Thunderstorms</b>	Updated hazard description to match Georgia State Hazard Mitigation Plan information Updated and consolidated hazard profile with new data Content revised
<b>Natural Hazard WinterStorms</b>	Updated hazard description to match Georgia State Hazard Mitigation Plan information Updated and consolidated hazard profile with new data Content revised
<b>Natural Hazard Flooding</b>	Updated hazard description to match Georgia State Hazard Mitigation Plan information Updated and consolidated hazard profile with new data Land Use and Development trends updated to include municipal NFIP information Content revised
<b>Natural Hazard Tornado</b>	Updated hazard description to match Georgia State Hazard Mitigation Plan information Updated and consolidated hazard profile with new data Content revised
<b>Natural Hazard Drought</b>	Updated hazard description to match Georgia State Hazard Mitigation Plan information Content revised
<b>Natural Hazard Wildfire</b>	Updated hazard description to match information in the Georgia State Hazard Mitigation Plan

## White County Multi-Jurisdictional Hazard Mitigation Plan

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	Updated and consolidated hazard profile data Content revised
<b>Natural Hazard Tropical Cyclone</b>	New Section – Not in 2016 plan Separated from Severe Storms, Tornadoes, and Flooding Events (information consolidated into a single section)
<b>Technological Hazard Hazardous Materials</b>	Updated hazard description Updated and consolidated hazard profile data; content revised
<b>Technological Hazard Dam Failure</b>	Updated hazard description Updated and consolidated hazard profile data; Content revised
<b>Technological Hazard Transportation</b>	New Section – Not in 2016 plan
<b>Technological Hazard Terrorism</b>	New Section – Not in 2016 plan
<b>Technological Hazard Communications Failure</b>	New Section – Not in 2016 plan

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Risk Assessment**

*Requirement §201.6(c)(2)(i and ii)*

*Requirement §201.6(d)(3)*

The White County Hazard Mitigation Planning Committee conducted a comprehensive Threat and Hazard Identification and Risk Assessment (THIRA) for White County and its municipalities.

This assessment developed the hazard basis for this plan. The assessment includes the following components for each hazard:

1. **Hazard Identification:** The White County Hazard Mitigation Planning Committee identified seven natural hazards and four technological hazards for this Hazard Mitigation Plan. This is an increase of three natural hazards and three technological hazards from the previous iteration of the plan. Each hazard was identified using statistical data and records from a variety of sources. The list of hazards is based upon frequency, severity of impact, probability, potential losses, and vulnerability.
2. **Hazard Description:** Each hazard was described in detail. Many hazard descriptions came from the Georgia Hazard Mitigation Plan since many of the hazards that could impact the state could also potentially impact White County.
3. **Profile of Hazards:** Each hazard was profiled as to how it could potentially impact White County.
4. **Assets Exposed to the Hazard:** The plan considers critical facilities and infrastructure as part of the vulnerability assessment. This assessment determines the vulnerability of the municipalities and attempts to identify the populations most vulnerable to each hazard, although many have potential countywide impacts.
5. **Estimated Potential Losses:** Using critical facility and history data, an estimation of potential losses due to a particular hazard event were determined.
6. **Land Use and Development Trends:** Land use trends were considered when determining the potential future impacts of each hazard. This is of particular importance regarding flooding and dam failure events.
7. **Multi-Jurisdictional Concerns:** Each jurisdiction was considered when determining the potential hazard impact.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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The White County Hazard Mitigation Planning Committee (HMPC) identified seven natural hazards the County is most vulnerable based upon available data including scientific evidence, known past events, and future probability estimates. As a result of this planning process, which included an analysis of the risks associated with probable frequency and impact of each hazard, the HMPC determined that each of these natural hazards pose a threat significant enough to address within this Plan. These include thunderstorms (including hail & lightning), winter storms, flooding, tornados, drought, wildfire, and tropical cyclone. For this plan update, the HMPC reviewed the natural hazards listed in the 2014 Georgia Hazard Mitigation Strategy Standard Plan Update to assess the applicability of these hazards to White County, City of Cleveland, and the City of Helen (See Table 3.1). Each of these natural hazards is addressed in this chapter of the Plan. An explanation and results of the vulnerability assessment are found in Tables 3-1 and 3-2. The HMPC also discussed how changes in the climate may in some ways impact the County and Cities. If this is the case, at this point there is insufficient data to calculate how and to what degree such changes may impact White County in the future. However, it seems likely that the impact of any changes in climate would be manifested in the form of the same hazards currently addressed within this Plan, even though frequency, probability and severity of those hazards might change.

**Table 3.1 – Hazard Terminology Differences**

Hazards Identified in 2014 GA State Plan	Equivalent/Associated Hazards Identified in the White County Plan Update	Difference
Severe Weather	Thunderstorms	Terminology
Wind	Thunderstorms	HMPC views as an associated hazard.
Hailstorm	Thunderstorms	HMPC views as an associated hazard.
Lightning	Thunderstorms	HMPC views as an associated hazard.
Severe Winter Storms	Winter Storms	Terminology
Inland Flooding	Flooding	Terminology
Tornadoes	Tornados	Grammatical
Drought	Drought	None
Wildfire	Wildfire	None
Tropical Cyclonic Events	Tropical Cyclone	Terminology

# White County Multi-Jurisdictional Hazard Mitigation Plan

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**Table 3.2 – Hazard Description, Location & Extent**

Hazard Type	Description	Location	Extent
Thunderstorms	40-41	43	44
Winterstorms	49	50	51
Flooding	53	57	58
Tornado	62	64	63
Drought	68	69-70	69-70
Wildfire	74-75	76	76
Tropical Cyclone	80-81	82-83	86

**Table 3.3 – Previous Occurrences & Probability**

Hazard Type	Occurrences	Probability
Thunderstorms	44-48	46
Winterstorms	50-51	52
Flooding	56-59	58
Tornado	63-65	65
Drought	70	68-70
Wildfire	75	79
Tropical Cyclone	86	85

**Table 3.4 – Impact & Vulnerability**

Hazard Type	Impact	Vulnerability
Thunderstorms	43, 46	48
Winterstorms	52	52
Flooding	59	58-59
Tornado	65-67	67
Drought	72	73
Wildfire	76-78	78 ; Appendix D
Tropical Cyclone	85	84-85

# White County Multi-Jurisdictional Hazard Mitigation Plan

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**Table 3.4(a) – Vulnerability Assessment – Natural Hazards**

Hazard Type	White County	Cleveland	Helen
<b>THUNDERSTORMS</b>			
Frequency	EX	EX	EX
Severity	EX	EX	EX
Probability	EX	EX	EX
<b>WINTERSTORMS</b>			
Frequency	H	H	H
Severity	H	H	H
Probability	H	H	H
<b>FLOODING</b>			
Frequency	M	M	M
Severity	M	M	EX
Probability	M	M	M
<b>TORNADO</b>			
Frequency	H	H	H
Severity	H	EX	EX
Probability	H	H	H
<b>DROUGHT</b>			
Frequency	M	VL	VL
Severity	M	L	L
Probability	VL	VL	VL
<b>WILDFIRE</b>			
Frequency	M	VL	VL
Severity	M	M	H
Probability	M	VL	M
<b>TROPICAL CYCLONE</b>			
Frequency	VL	VL	VL
Severity	M	M	H
Probability	VL	VL	VL

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Key for Table 3.4(a) – Vulnerability Assessment Frequency and Probability Definitions**

**NA** = Not applicable; not a hazard to the jurisdiction

**VL** = Very low risk/occurrence; Very low probability within the jurisdiction in any given year.

**L** = Low risk; little damage potential (for example, minor damage to less than 5% of the jurisdiction); Low probability of occurrence within the jurisdiction of an event on an annual basis.

**M** = Medium risk; moderate damage potential (for example, causing partial damage to 5-15% of the jurisdiction, infrequent occurrence); Moderate probability within the jurisdiction; May occur annually or more often.

**H** = High risk; significant risk/major damage potential (for example, destructive, damage to more than 15% of the jurisdiction, regular occurrence); Significant probability within the jurisdiction; likely to occur multiple times per year.

**EX** = Extensive risk/probability/impact; extremely likely to occur numerous times per year.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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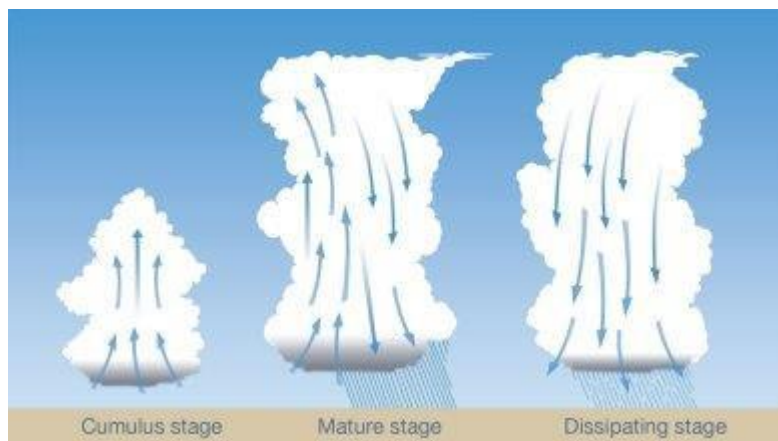
## Natural Hazard: **Thunderstorms**

### *Hazard Description*

This section provides general and historical information about thunderstorms, including high wind, lightning, and hail. Other elements of thunderstorms, such as tornadoes and flooding, are addressed in their own sections.

Thunderstorms are formed when moist air near the earth's surface is forced upward through some catalyst (convection or frontal system). As the moist air rises, the air condenses to form clouds. Because condensation is a warming process, the cloud continues to expand upward. When the initial updraft is halted by the upper troposphere, both the anvil shape and a downdraft form. This system of up-drafting and down-drafting air columns is termed a "cell."

As the process of updrafts and downdrafts feeds the cell, the interior particulates of the cloud collide and combine to form rain and hail, which falls when the formations are heavy enough to push through the updraft. The collision of water and ice particles within the cloud creates a large electrical field that must discharge to reduce charge separation. This discharge is the lightning that occurs from cloud to ground or cloud to cloud in the thunderstorm cell. In the final stage of development, the updraft weakens as the downdraft-driven precipitation continues until the cell dies.



Each thunderstorm cell can extend several miles across its base and to reach 40,000 feet in altitude. Thunderstorm cells may compound and move abreast to form a squall line of cells, extending farther than any individual cell's potential.



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Thunderstorms**

### *Hazard Description Continued*

In terms of temporal characteristics, thunderstorms exhibit no true seasonality in that occurrences happen throughout the year. Convectively, driven systems dominate the summer while frontal driven systems dominate during the other seasons. The rate of onset is rapid in that a single cell endures only 20 minutes. However, various cells in different stages of development may form a thunderstorm that lasts up to a few hours as it moves across the surface.

In terms of magnitude, the National Weather Service defines thunderstorms in terms of severity as a severe thunderstorm that produces winds greater than 57 mph and/or hail of at least 1 inch in diameter and/or a tornado. The National Weather Service chose these measures of severity as parameters more capable of producing considerable damage. Therefore, these are measures of magnitude that may project intensity.

### *Lightning*

Lightning occurs when the difference between the positive and negative charges of the upper layers of the cloud and the earth's surface becomes great enough to overcome the resistance of the insulating air. The current flows along the forced conductive path to the surface (in cloud to ground lightning) and reaches up to 100 million volts of electrical potential. In Georgia, lightning strikes peak in July, with June and August being second highest in occurrence.

### *Hail*

Hail is a form of precipitation that forms during the updraft and downdraft-driven turbulence within the cloud. The hailstones are formed by layers of accumulated ice (with more layers creating larger hailstones) that can range from the size of a pea to the size of a grapefruit. Hailstones span a variety of shapes but usually take a spherical form. Hailstorms mostly endanger cars but have been known to damage aircraft and structures.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Thunderstorms**

Hailstone size	Measurement		Updraft Speed	
	in.	cm.	mph	km/h
<b>bb</b>	< 1/4	< 0.64	< 24	< 39
<b>pea</b>	1/4	0.64	24	39
<b>marble</b>	1/2	1.3	35	56
<b>dime</b>	7/10	1.8	38	61
<b>penny</b>	3/4	1.9	40	64
<b>nickel</b>	7/8	2.2	46	74
<b>quarter</b>	1	2.5	49	79
<b>half dollar</b>	1 1/4	3.2	54	87
<b>walnut</b>	1 1/2	3.8	60	97
<b>golf ball</b>	1 3/4	4.4	64	103
<b>hen egg</b>	2	5.1	69	111
<b>tennis ball</b>	2 1/2	6.4	77	124
<b>baseball</b>	2 3/4	7.0	81	130
<b>tea cup</b>	3	7.6	84	135
<b>grapefruit</b>	4	10.1	98	158
<b>softball</b>	4 1/2	11.4	103	166

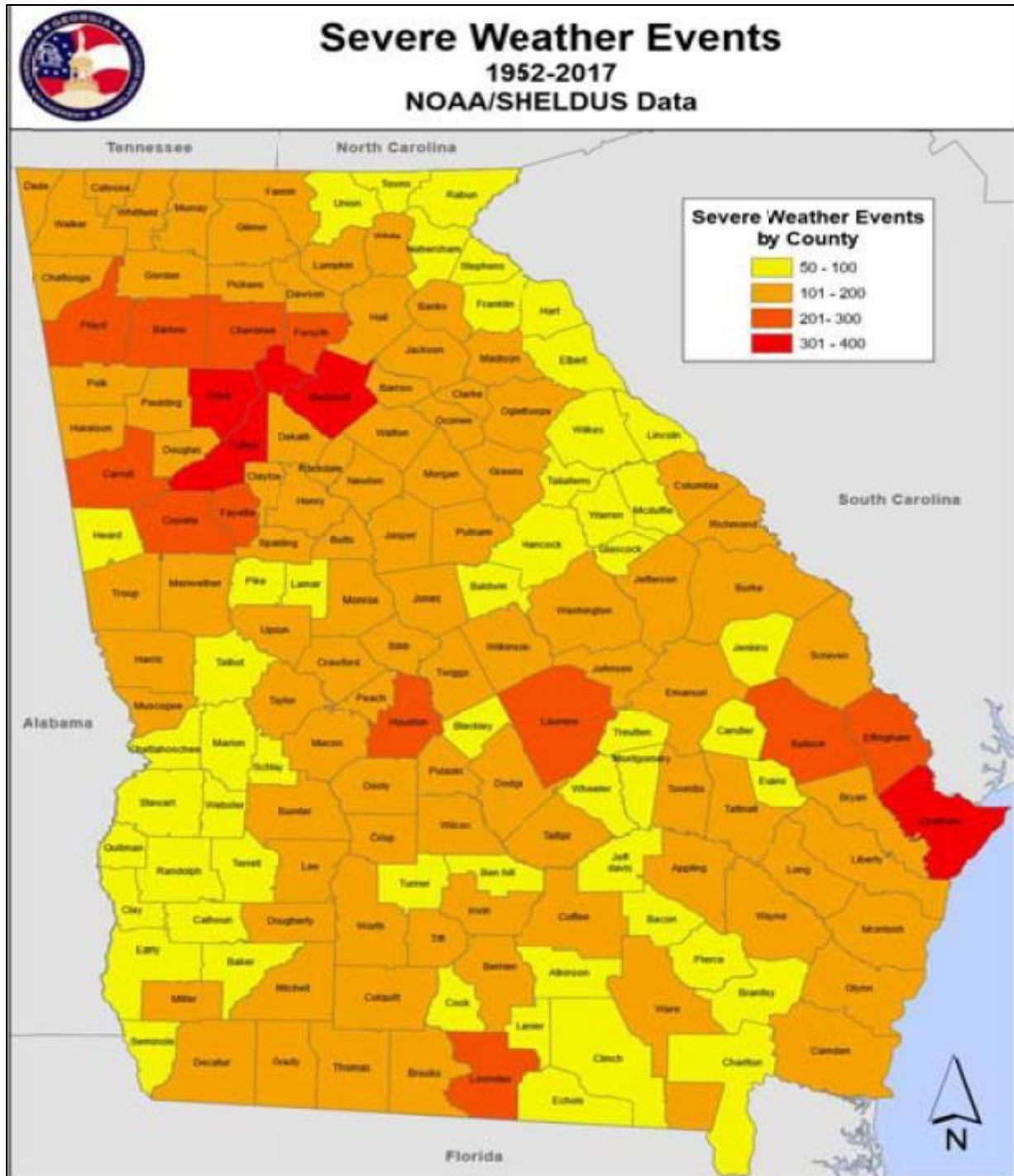
### *Hazard Profile*

Severe thunderstorms, including high winds, hail, and lightning, are a serious threat to the residents and infrastructure of White County. Severe thunderstorms are the most frequently occurring natural hazard in White County. Many of these storms include high winds, lightning, and hail.

Hail up to 1.75 inches was recorded in White County on several occasions, most recently in 2017. While there have been dozens of documented thunderstorm events affecting White County over the last 50 years, it is likely that the official number is a low estimate due to poor record keeping in decades past. For example, only 4 thunderstorm events were recorded between 1964 and 1990, likely a vast underestimation of actual events.

Natural Hazard: **Thunderstorms**

**Thunderstorms / Lightning / Hail Events**



Source: 2019 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Thunderstorms**

### *(Hazard Profile Continued)*

Most of the available information relating to severe thunderstorm events in White County fails to describe damage estimates in any detail. With each thunderstorm event, there are likely unreported costs related to infrastructure costs, public safety response costs, utility repair costs, and personal home and business repair costs. Thunderstorms have occurred during all parts of the day and night and in every month in White County.

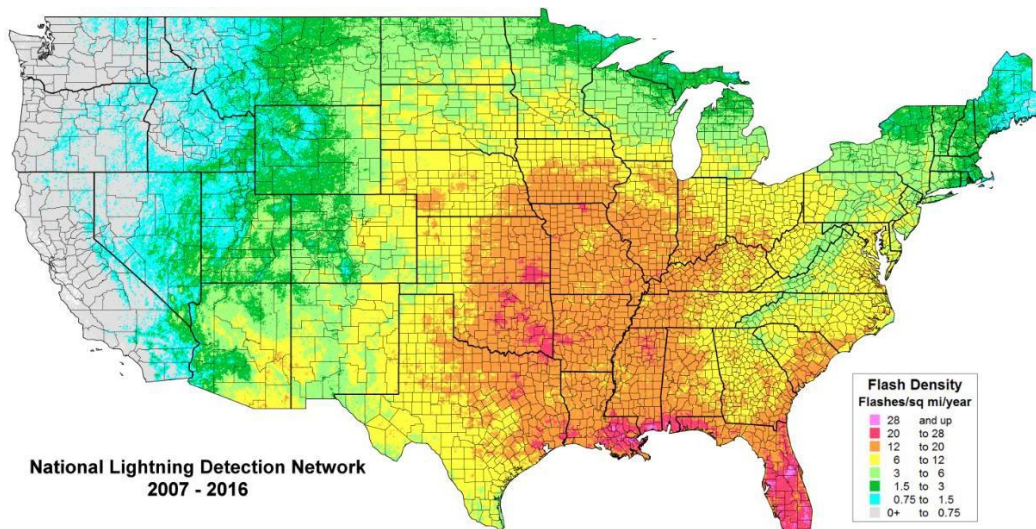
The White County Hazard Mitigation Plan Update Committee utilized data from the National Climatic Data Center, the National Weather Service, numerous weather-related news articles, and the White County LEOP in researching severe thunderstorms and their potential impacts on the county.

During the last 50 years, 90 thunderstorm events were recorded in White County, with 70 of those occurring in the last 25 years. This number includes 33 hail events and only 3 lightning reports. According to these records, White County has a 0.008% chance daily of a thunderstorm event based upon data from the last 25 years. Since the 2016 update there have been 61 events reported. This includes 25 hail events. Due to improved record keeping protocols, the White County Hazard Mitigation Plan Update Committee believes the data from the last ten years provides a more accurate representation of the thunderstorm threat to the county. The White County Hazard Mitigation Plan Update Committee has also determined that the lightning threat is severely under-reported, as shown in the NCDC data numbers.

As indicated by the below graphics, White County averages between 3 and 12 flashes of cloud to ground lightning per square mile per year. That equals a 0.008% to 0.033% chance of a cloud-to-ground lightning strike on any given day. This shows a much higher indication of lightning occurrences than has been reported to the National Weather Service and the National Climatic Data Center. It is the determination of the White County Hazard Mitigation Plan Update Committee that this data shows a more accurate representation of the scope of the threat that lightning poses to the citizens and infrastructure of White County.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Thunderstorms**

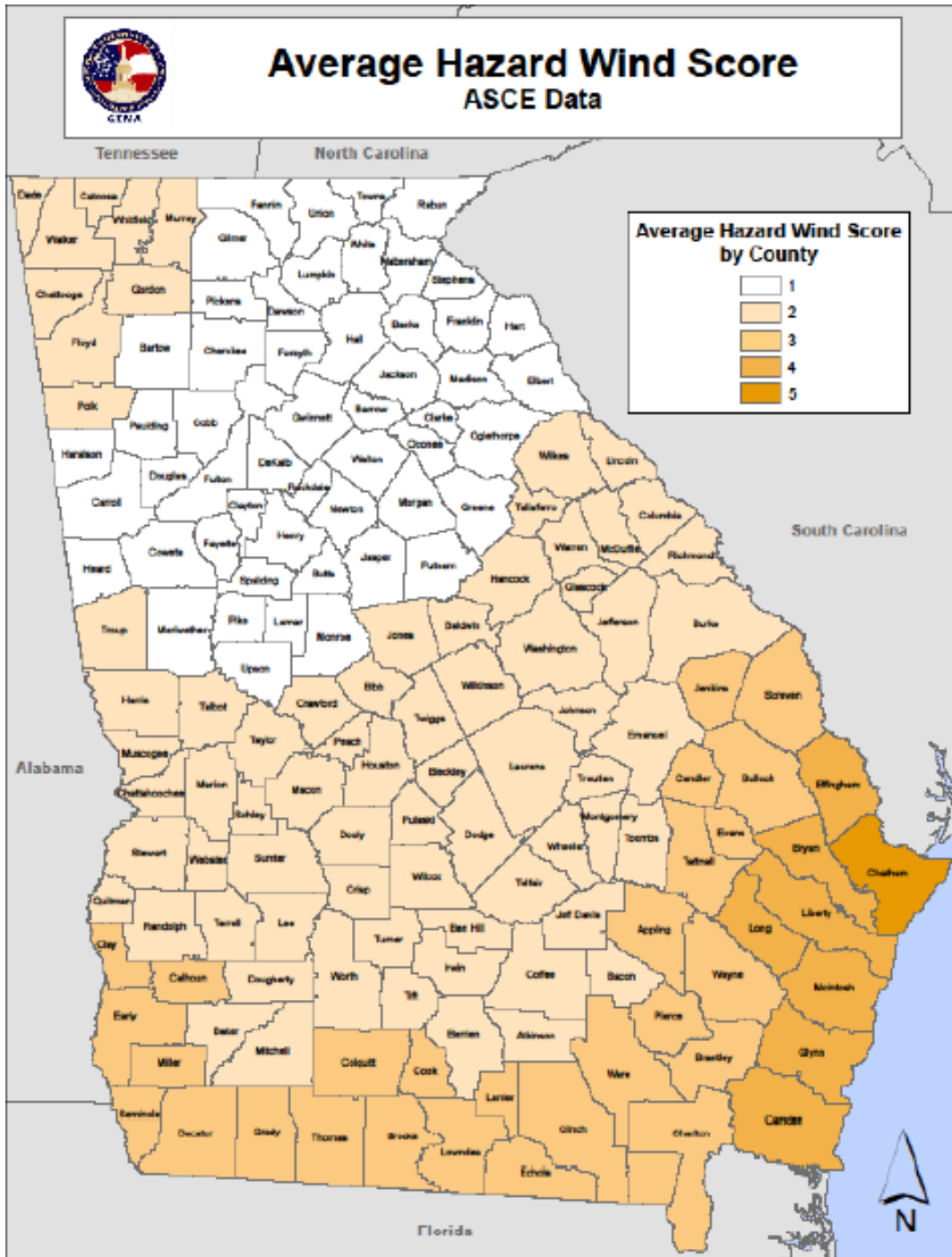


Severe thunderstorm winds, which are defined as winds of at least 58 mph in conjunction with a convective event, have occurred with many thunderstorms that have affected White County. These winds can exceed 100 mph and cause damage comparable to weak tornadoes. Below are two maps that identify the wind risk and the hazard wind score for the State of Georgia, including White County. The Hazard Wind Score maps use the following scale:

Hazard Score	Wind Speeds
1	<90 mph gust
2	91 – 100 mph gust
3	101 – 110 mph gust
4	111 – 120 mph gust
5	>120 mph gust

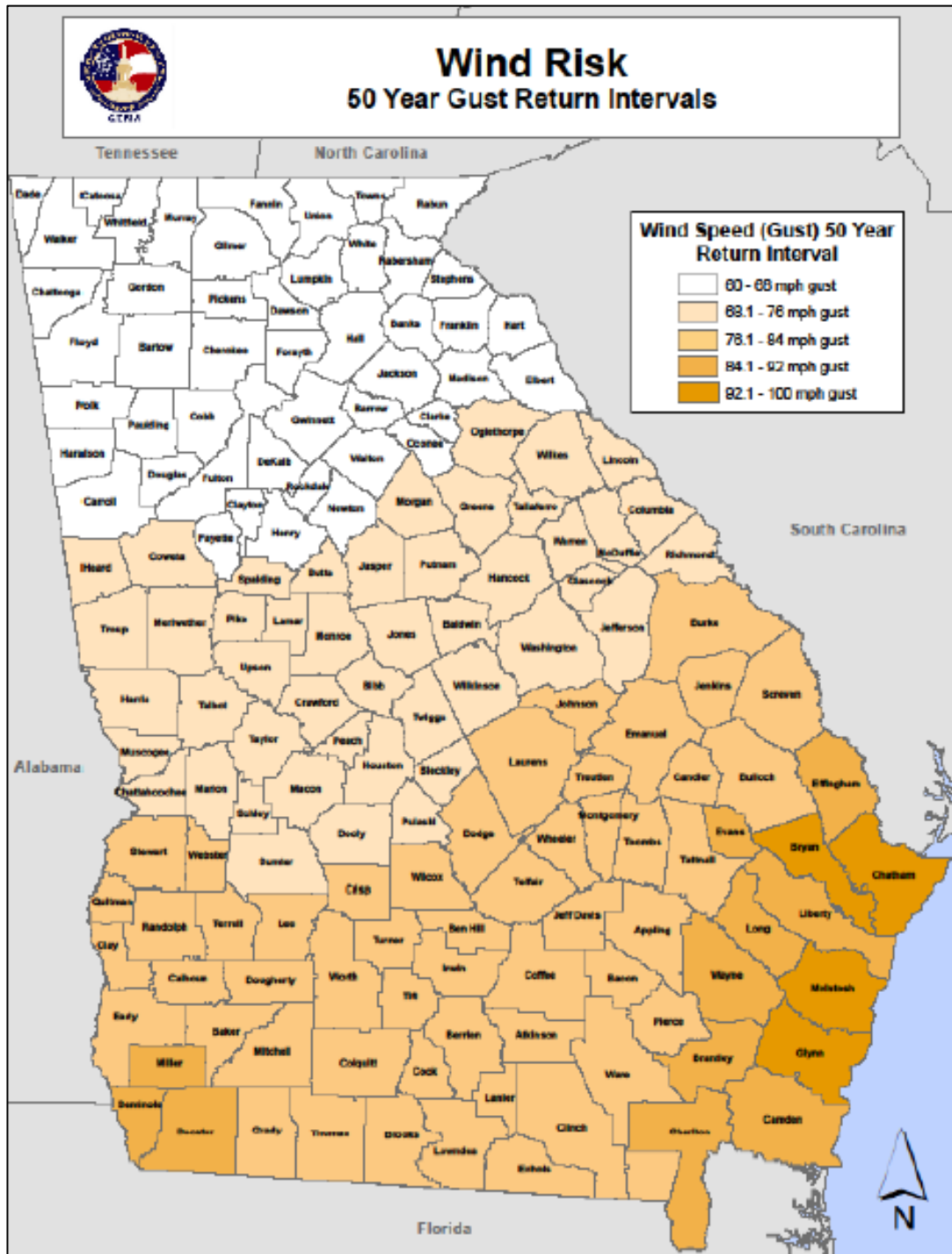
# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Thunderstorms



# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Thunderstorms



Source: 2014 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Thunderstorms**

### *Assets Exposed to the Hazard*

In evaluating assets that are susceptible to severe thunderstorms, the White County HMPC determined that all public and private property is at threat by severe thunderstorms, including all critical facilities. This is due to the lack of spatial prejudice of severe thunderstorm events.

### *Estimated Potential Losses*

Estimates of damage for the past events of the last 50 years are over \$5,900,000 or \$118,000 annually. These numbers are thought to be a gross underestimation of actual past damages.

### *Land Use & Development Trends*

White County currently has no land use trends related to Thunderstorms.

### *Multi-Jurisdictional Considerations*

Thunderstorm events have occurred across all areas of White County. Crop damage from thunderstorm events would likely have the greatest impact in the rural areas of White County. However, property damage numbers would be highest in more heavily populated areas due to greater population density. Thunderstorms have the potential to impact all areas of White County.

### *Hazard Summary*

Thunderstorm events pose one of the greatest threats of property damage, injuries, and loss of life in White County. Thunderstorm events are the most frequently occurring weather event that threatens White County. As a result, the White County HMPC recommends that the mitigation measures identified in this plan for thunderstorms should be aggressively pursued due to the frequency of this hazard and the ability for this hazard to affect any part of White County.



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Winter Storms**

### *Hazard Description*

Severe winter storms bring the threat of ice and snow. There are many types of frozen precipitation that could create a severe winter weather event. Freezing rain consists of super cooled falling liquid precipitation freezing on contact with the surface when temperatures are below freezing. This results in an ice glazing on exposed surfaces including buildings, roads, and power lines. Sleet is easily discernable from freezing rain in that the precipitation freezes before hitting the surface. Often this sleet bounces when hitting a surface and does not adhere to the surface. However, sleet can compound into sufficient depths to pose some threat to motorists and pedestrians.

A heavy accumulation of ice, which is often accompanied by high winds, can devastate infrastructure and vegetation. Destructiveness in the southern states is often amplified due to the lack of preparedness and response measures. Also, the infrastructure was not designed to withstand certain severe weather conditions such as weight build-up from snow and ice. Often, sidewalks and streets become extremely dangerous to pedestrians and motorists. Primary industries such as farming, and fishing suffer losses through winter seasons that produce extreme temperatures and precipitation.

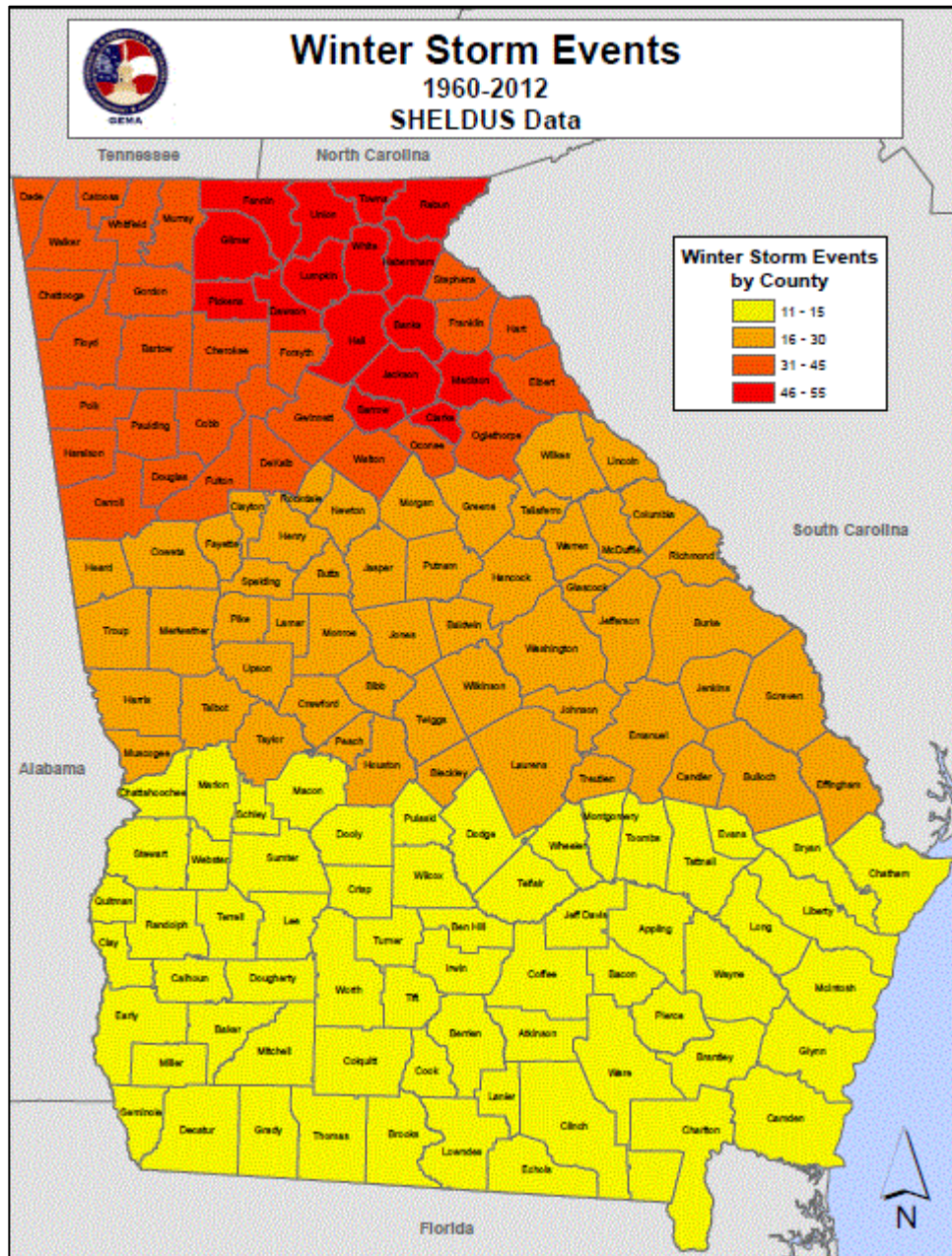
Severe winter weather exhibits seasonal qualities in that most occur within the months of January to March, with the highest probability of occurrence in February. The rate of onset and duration varies from storm to storm, depending on the weather system driving the storm. Severe winter weather rarely frequents the State of Georgia. However, the impacts of the storms substantiate severe winter weather's inclusion in the risk assessment.

### *Hazard Profile*

While winter storms are not as frequent of an occurrence in White County as they are in areas in the Northern US, they still have the potential to wreak havoc on the community when they do occur. Winter storms in White County typically cause drastic damage to infrastructure, such as roads, power lines, and bridges. They also can cause damage to private property, businesses, and trees throughout the county. Due to the county's elevation changes, many highways have steep grades that can become dangerous during icy conditions. The large number of trees in White County can also become a hazard when the tree limbs become weighed down with snow and ice and begin to break and fall to the ground, potentially damaging private property, public property, or injuring people and animals.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Winter Storms



Source: 2014 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

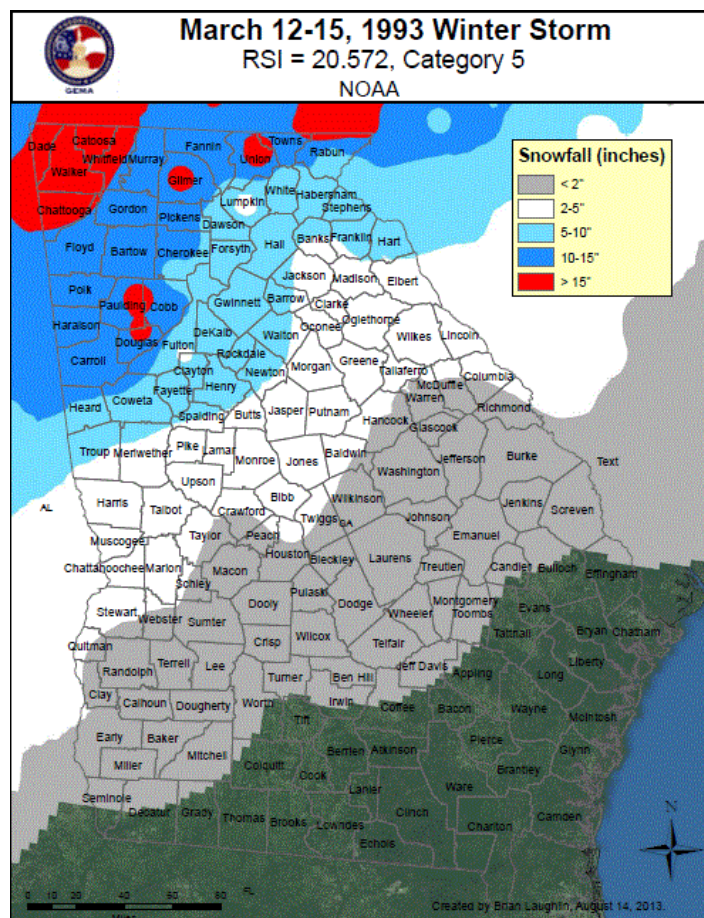
# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Winter Storms

### *(Hazard Profile Continued)*

During the past fifty years, documentation exists for 70 winter storm events in White County. No data can be located prior to this timeframe. On average, a winter storm has occurred in White County on a nearly annual basis. A 200% chance exists of a winter storm occurring in any given year in White County. Due to improved record keeping techniques, the HMPC believes that looking at the record for the last 20-year period provides a more accurate representation of the threat of winter storms for White County. White County has experienced 12 winter storms since the 2016 update and 41 winter storms in the past 20 years.

Individual events of Winter Weather can be drastically different depending on many factors, including the duration of the event, the type of precipitation involved, and the depth of the precipitation. Winter Storm events can be a light dusting of snow, ¼ inch of ice, or over a foot of snow. Other factors, such as wind, can influence the strength of these events, as happened with wind-blown snow during the March 1993 Winter Storm event. During this event, over a foot of snow was reported in multiple areas across White County and most areas received at least 10 inches of snow.



Source: 2014 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

# White County Multi-Jurisdictional Hazard Mitigation Plan

---

## Natural Hazard: **Winter Storms**

### *Assets Exposed to the Hazard*

Since winter storms are indiscriminate regarding location, the White County HMPC determined that all public and private property, including all critical infrastructure, are susceptible to impacts from winter storms.

### *Estimated Potential Losses*

Total estimated losses for winter storm events of the last 50 years indicate a total of over \$1,280,000 in losses. Extrapolated over 50 years, this averages out to \$25,600 per year. However, nearly all the documented winter storms with loss information have occurred over the last 20 years. As such, the average loss per year for the last 20 years is \$64,000 per year. It is estimated that these numbers are a gross underestimation of the impact of past winter storms and caution is expressed when using these figures to make loss determinations for winter storms in White County.

### *Land Use & Development Trends*

White County currently has no land use trends related to Winter Storms.

### *Multi-Jurisdictional Considerations*

All portions of White County could potentially be impacted by a winter storm, including freezing rain, sleet, and snow. Therefore, all mitigation actions identified regarding winter storms should be pursued on a countywide basis and include all cities and towns located within White County.

### *Hazard Summary*

Winter storms, which can include freezing rain, sleet, or snow, typically afford communities some advance warning, which is different from many other severe weather phenomena. The National Weather Service issues winter storm watches, advisories, and warnings as much as a day before the storm's impacts begin. Unfortunately, communities in the Southern United States are not equipped to handle winter storms due to their relative infrequent nature. Oftentimes, communities can face severe impact from these storms. The White County HMPC recognizes the potential threats winter storms could have on the community and have identified specific mitigation actions as a result.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Flooding**

*Requirement §201.6(c)(2)(ii)*

*Requirement §201.6(c)(3)(ii)*

### *Hazard Description*

Flooding is a temporary overflow of water on normally dry lands adjacent to the source of water, such as a river, stream, or lake. The causes of flooding include mass sources of precipitation, such as tropical cyclones, frontal systems, and isolated thunderstorms combined with other environmental variables, such as changes to the physical environment, topography, ground saturation, soil types, basin size, drainage patterns, and vegetative cover. Adverse impacts may include structural damages, temporary backwater effects in sewers and drainage systems, death of livestock, agricultural crop loss, loss of egress and access to critical facilities due to roads being washed-out or over-topped and unsanitary conditions by deposition of materials during recession of the floodwaters.

Floods are loosely classified as either coastal or riverine. Coastal flooding occurs when normally dry, low-lying land is flooded by sea water. Coastal flooding is usually associated with tropical cyclones in Georgia. Riverine flooding occurs from inland water bodies such as streams and rivers. Riverine flooding is often classified based on rate of onset. The first is slow to build, peak, and recede, often allowing sufficient time for evacuations. The other type of riverine flood is referred to as a “flash” flood, which rapidly peaks and recedes, thus giving insufficient time for evacuations. Flash floods are typically considered the most dangerous of these types.

On a broad scale, flooding can occur around any body of water or low-lying surface given enough precipitation or snowmelt. The spatial extent of the flooding event depends on the amount of water overflow but can usually be mapped because of existing floodplains (areas already prone to flooding).

Flooding in Georgia is highly dependent on precipitation amounts and is highly variable. Certain seasons are more prone to flooding to a greater likelihood of excessive precipitation. Typically, the wet seasons are during the winter, early spring, and midsummer. Late spring and fall are usually drier seasons.

### *Hazard Profile*

The White County HMPC researched flooding information for the last fifty years. The main sources of information used by the White County HMPC came from the National Climatic Data Center, the White County Emergency Operations Plan, and news media sources. It was determined that flooding has caused significant damage on a relatively small number of occasions over the last 20 years.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Flooding**

### *(Hazard Profile Continued)*

One significant flooding event that affected White County occurred in March of 2018. This flood of the Chattahoochee River, caused by a flash flood event, led to much of Helen being washed out and significant flooding in the Carolina Springs Rd. While data was collected for the entire 50-year timeframe, little information was available regarding flood events over that period, possibly due to poor record keeping.

Flood events within White County are typically associated with areas of special flood hazard as identified on Flood Rate Insurance Maps (FIRMs) published by the Federal Emergency Management Agency. Relatively little information is available regarding flooding damage estimates. However, with each flooding event, it is likely that significant costs arose related to road repair, infrastructure repair, and public safety response operations. Most of the flood damage in White County's history is related to roads and culverts washing out because of flood waters. Typically, this damage is flash flooding events with water levels between 6" to 18" depending on locations and rainfall amounts. All attempts were made to locate any documented information regarding flood depths for past events within all our jurisdictions but unfortunately no such data was recorded. In the future, necessary steps will be made to ensure this data is accurately recorded.

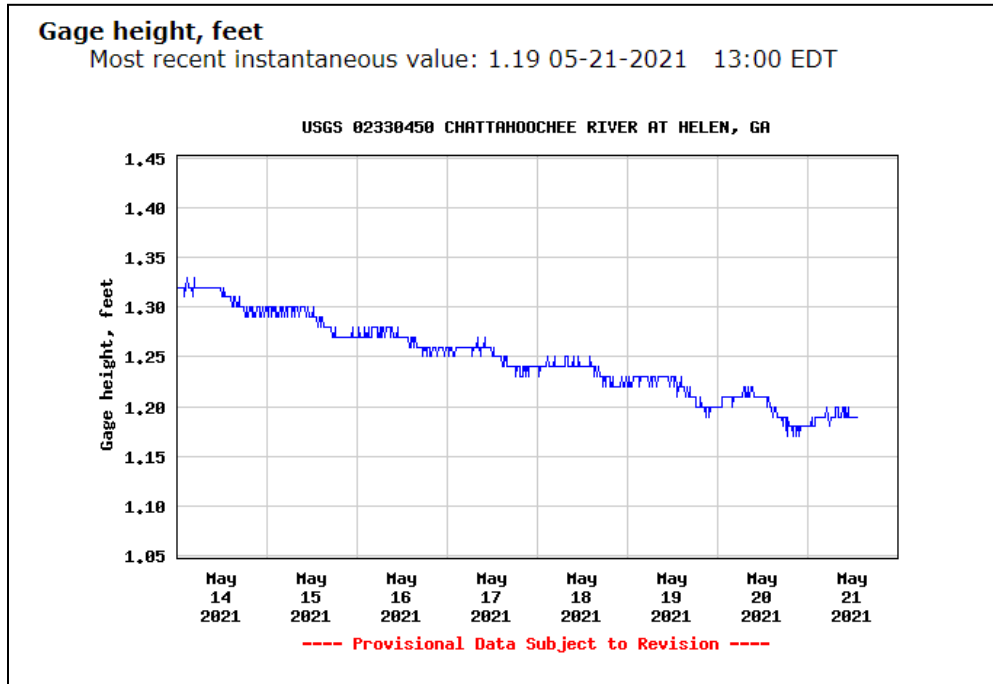
There are 16 documented flood events over the last 50 years. Based on the 50-year record, it can be inferred that such an event is likely to occur every 3.1 years in White County. This relates to a 32% chance of a flood event occurring each year. Flooding is of a significant concern to White County residents overall, but particularly to those areas along the Chattahoochee River and its tributaries.

Information from the USGS indicates that major flood stage (6 feet at the flood gauge on the Chattahoochee River near Helen) would lead to extensive flooding of residences and businesses in Helen and water would begin to flood the Troll Tavern. Flood waters more than 2 feet could inundate some of the businesses at major flood stage.

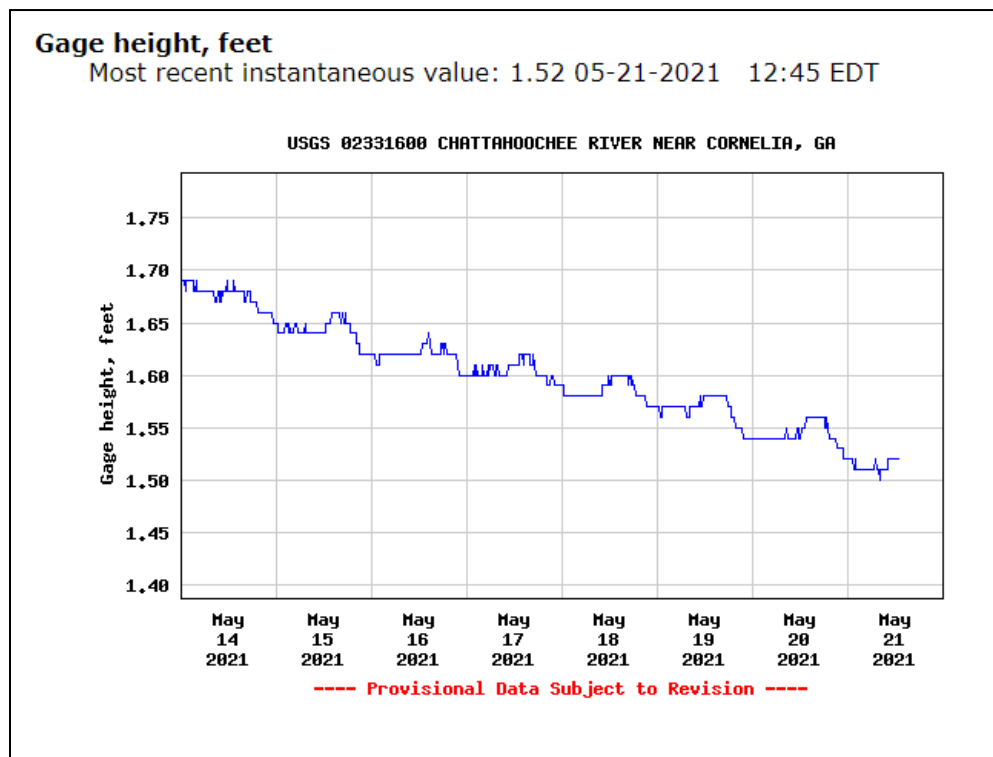
The City of Cleveland experiences flash flooding during severe thunderstorms where several inches of rain fall within a short period of time. This flooding event causes water levels on roadways, with tributaries such as Cox Creek to overflow the banks causing primarily street closures until the water recedes. One such recorded event occurred on March 25, 2021, radar estimates indicate the city received 5 to 8 inches of rainfall that resulted in flash flooding at the intersection of Old Nacoochee Road and Ash Street. While actual flood depth for this event is not recorded, it can be estimated based on observed rainfall amounts and the timeframe of the event that more than 5 inches of standing water in the roadways could have occurred over the throughout the City of Cleveland. These events have not caused any private property damages noted to local officials, however, culverts and streets have been damaged and need of repairs after the event concluded.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## City of Helen, River Gage



## White County, Unincorporated River Gage



# White County Multi-Jurisdictional Hazard Mitigation Plan

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Flood Damage – Carolina Springs Road, White County:



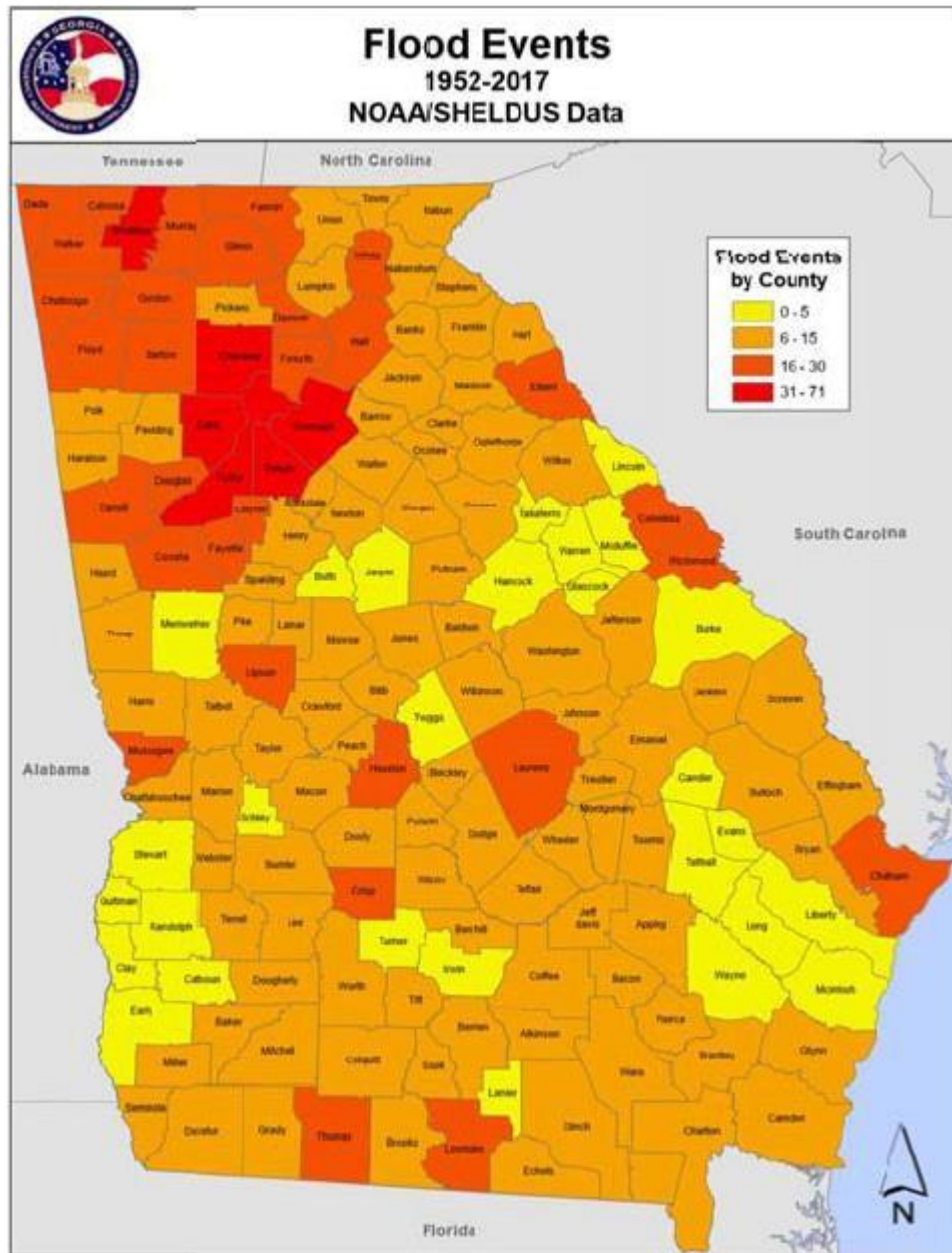


# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Flooding**

### *Assets Exposed to the Hazard*

To evaluate the assets that would potentially be impacted by flooding, the White County HMPC attempted to identify known structures within, or close to, the 100-year floodplain.



Source: 2019 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Flooding**

### *Estimated Potential Losses*

The flooding events in White County over the last 50 years have led to over \$836,000 in damages. Extrapolated over 50 years, this results in an annual average of \$16,720 per year. However, all reported damages have occurred in the last 15 years. As a result, the average over the last 15 years is \$55,733 annually. These estimations are believed to be a gross underestimation of both prior and potential damages from flood events.

Based upon the 2019 White County HAZUS Report, a flood equivalent to the 1% riverine flood levels could result in losses more than \$19.0 million. However, it is possible that some areas may not experience total losses while others may be inundated with flood waters that are not designated in the 1% riverine flood areas. Additionally, there is only one critical facility located in the 1% riverine flood areas.

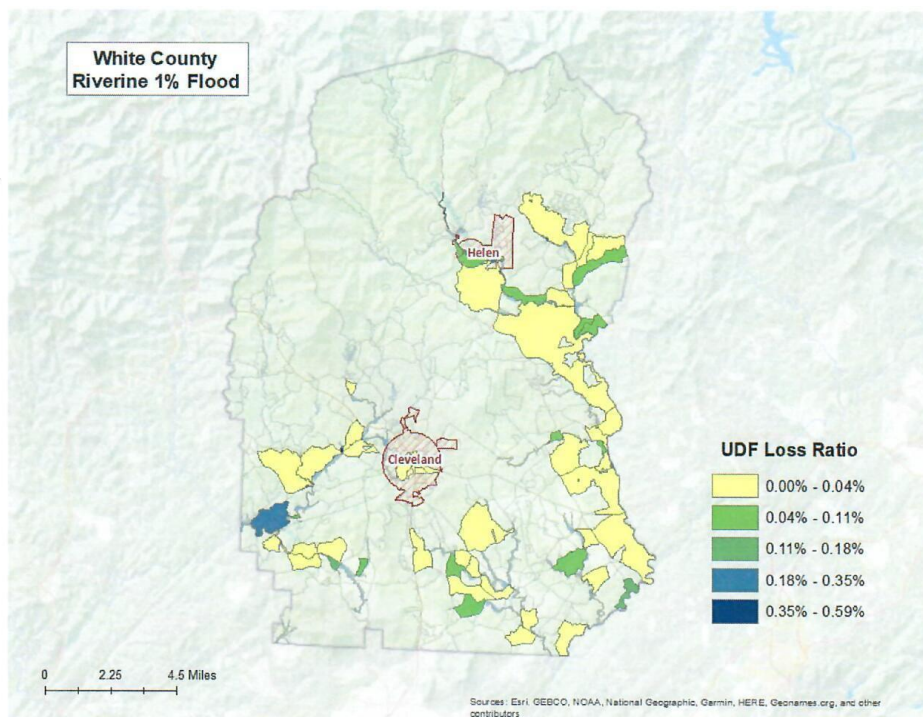


Figure 7: White County Potential Loss Ratios of Total Building Exposure to Losses Sustained to Buildings from the 1% Riverine Flood by 2010 Census Block

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Flooding**

### *Land Use & Development Trends*

White County continues to have population increases. This continued growth within White County has led to a 10.4% population increase between 2010 and 2018.

White County, the Cities of Cleveland and Helen participates in the National Flood Insurance Program (NFIP) and follows the program's guidelines to ensure future development is carried out in the best interests of the public.

The County first entered the NFIP in June of 1976, the City of Cleveland joined April of 1975 and Helen joined September of 1974. According to the NFIP guidelines, White County, and each of the municipalities, have executed a Flood Damage Prevention Ordinance. This ordinance ~~aims~~ to minimize the loss of human life and health as well as minimize public and private property losses due to flooding. The ordinance requires any potential flood damage be evaluated at the time of initial construction and that certain uses be restricted or prohibited based on this evaluation. The ordinance also requires that potential homebuyers be notified that a property is in a flood area. In addition, all construction must adhere to the Georgia State Minimum Standard Codes and the International Building Codes.

There are 2 residential repetitive loss properties identified in White County. These properties total \$9,927.

### *Multi-Jurisdictional Considerations*

During a large-scale flood event, many portions of White County would potentially be impacted by flooding. However, the area's most prone to flooding have historically been those areas located within the 100-year floodplain. All White County and its municipalities could potentially be impacted.

### *Hazard Summary*

Flooding has the potential to inflict significant damage within White County, particularly along the Chattahoochee River and its distributaries. Mitigation of flood damage requires the community to be aware of flood-prone areas, including roads, bridges, and critical facilities. The White County HMPC identified flooding as a hazard requiring mitigation measures and identified specific goals, objectives, and action items they deemed necessary to lessen the impact of flooding for their communities. These maps were updated since the previous plan.

## Natural Hazard: **Flooding**

### White County, Georgia

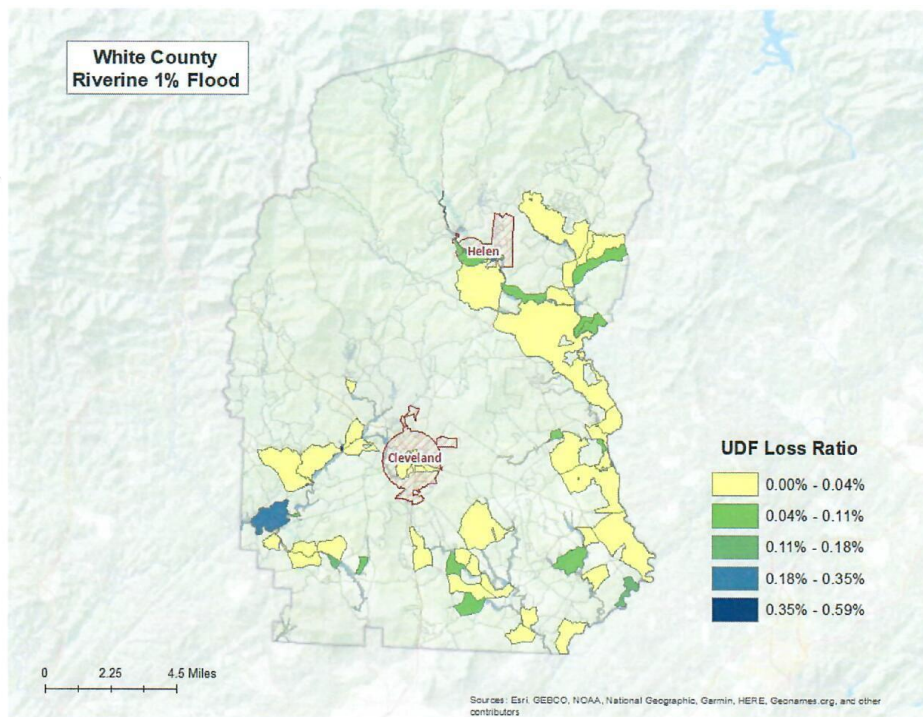
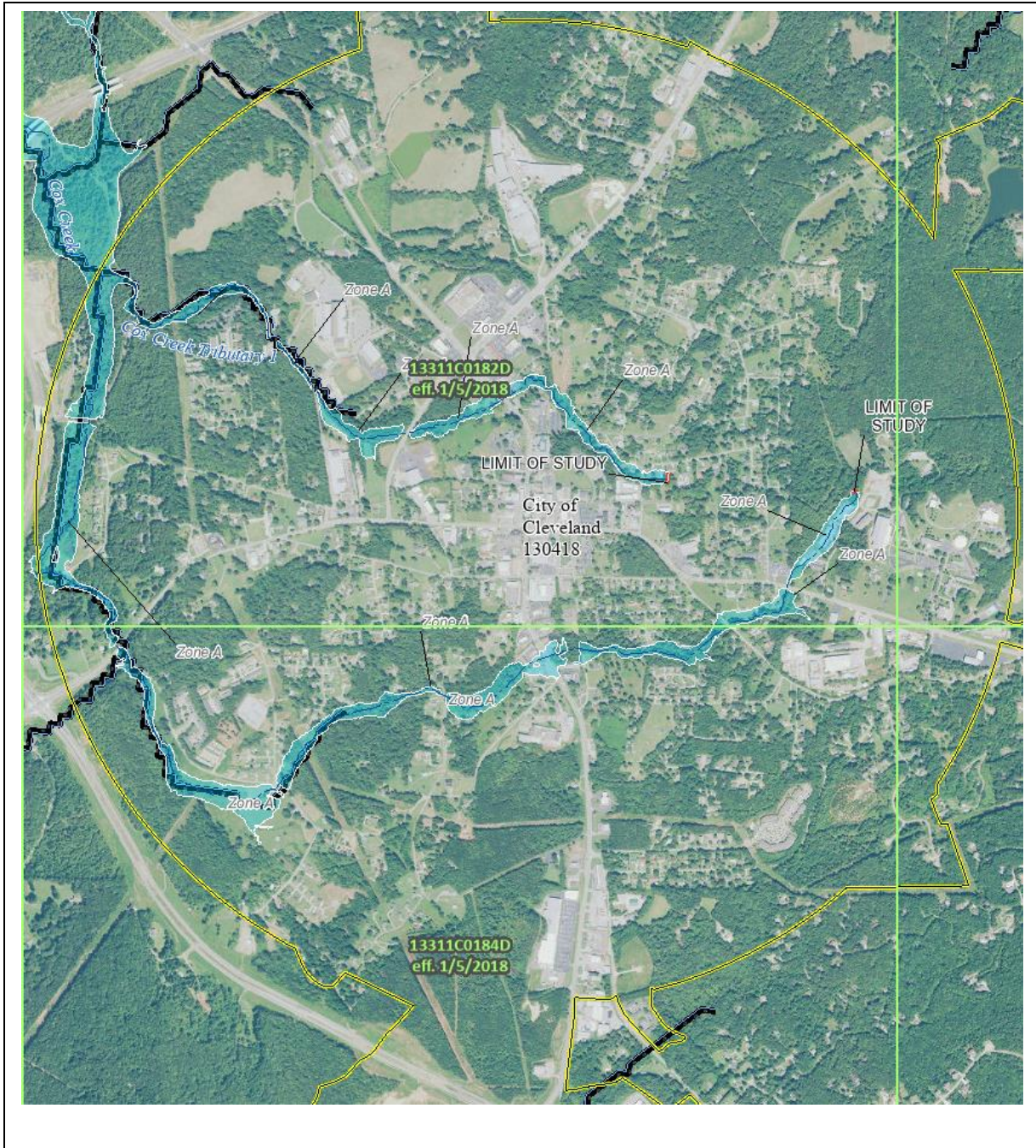
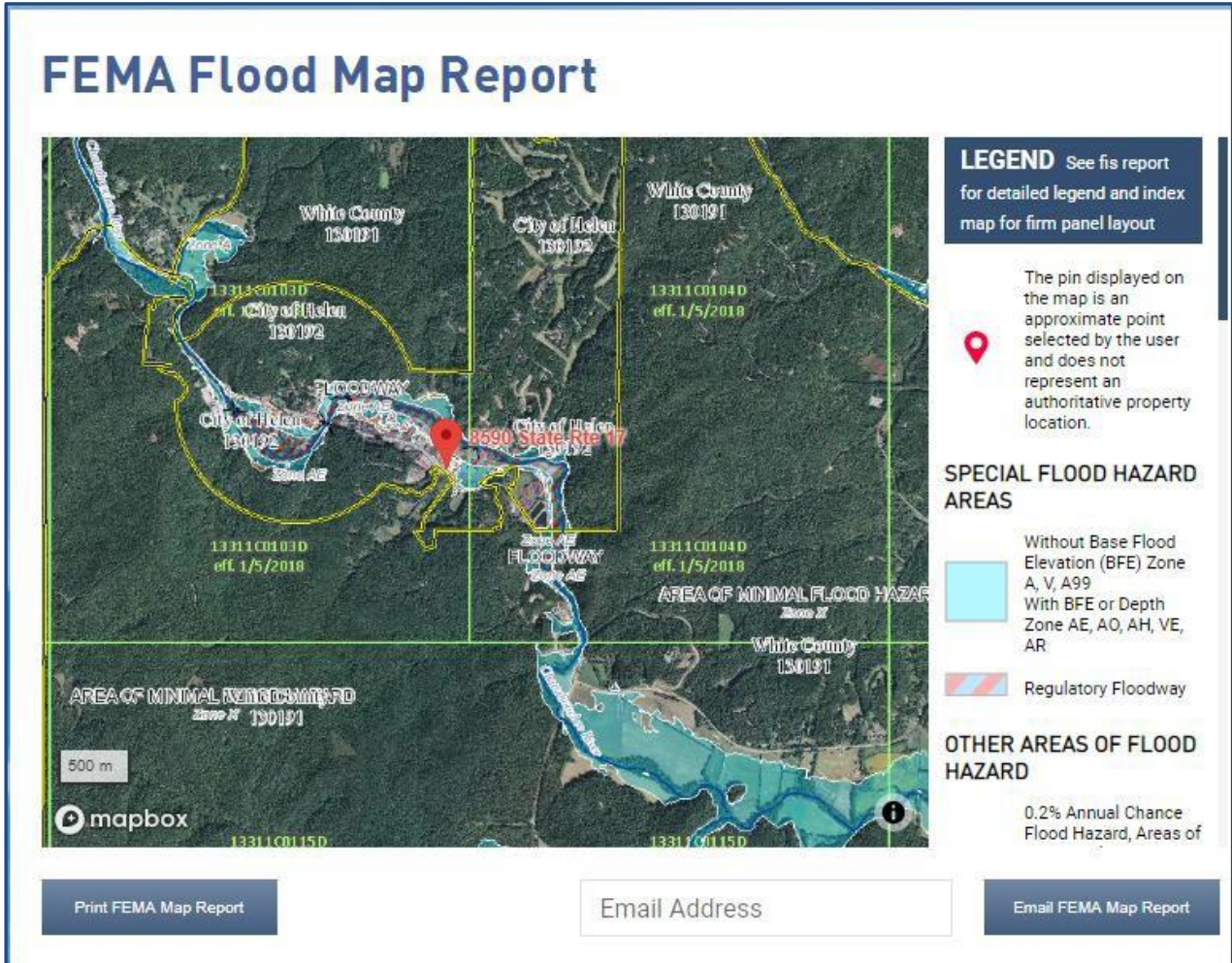


Figure 7: White County Potential Loss Ratios of Total Building Exposure to Losses Sustained to Buildings from the 1% Riverine Flood by 2010 Census Block

**Cleveland, Georgia**



Helen, Georgia



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Tornado**

### *Hazard Description*

A tornado is a violently rotating column of air (seen only when containing condensation, dust, or debris) that is in contact with the surface of the ground. Exceptionally large tornadoes may not exhibit the classic “funnel” shape, but may appear as a large, turbulent cloud near the ground or a large rain shaft. Destructive because of strong winds and windborne debris, tornadoes can topple buildings, roll mobile homes, uproot vegetation, and launch objects hundreds of yards.

Most significant tornadoes (excluding some weak tornadoes and waterspouts) stem from the right rear quadrant of large thunderstorm systems where the circulation develops between 15,000 and 30,000 feet. As circulation develops, a funnel cloud, a rotating air column aloft, or tornado descends to the surface. These tornadoes are typically stronger and longer-lived. The weaker, shorter-lived tornadoes can develop along the leading edge of a singular thunderstorm. Although tornadoes can occur in most locations, most of the tornado activity in the United States is in the Midwest and Southeast. Tornadoes can occur anywhere within the State of Georgia.

In terms of the continuum of area of impact for hazard events, tornadoes are isolated. Typically ranging from a few hundred to one or two miles across, tornadoes affect far less area than larger meteorological events such as tropical cyclones, winter storms and severe weather events. An exact season does not exist for tornadoes. However, most occur between early spring to mid-summer (February-June). The rate of onset of tornado events is rapid. Typically, the appearance of the first signs of the tornado is the descending funnel cloud. This sign may be only minutes from the peak of the event, giving those in danger minimal sheltering time. However, meteorological warning systems attempt to afford those in danger more time to shelter. The frequency of specific tornado intensities is undetermined because no pattern seems to exist in occurrence. Finally, the duration of tornado events ranges from the few minutes of impact on a certain location to the actual tornado lasting up to a few hours.

Tornadoes are measured after the occurrence using the subjective intensity measures. The Enhanced Fujita Scale describes the damage and then gives estimates of magnitude of peak 3-second gusts in miles per hour.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Tornado**

### *Hazard Profile*

All areas within White County are vulnerable to the threat of a tornado. Due to the indiscriminate and unpredictable nature of tornadoes, there is no reliable method to determine where or when a tornado will strike. There have been 9 documented tornados in the last 50 years in White County. It is likely that other tornadoes have occurred within this timeframe, but available records are limited in nature.

Based on the 50-year information available for White County, a tornado occurs every 5.5 years. On an annual basis, White County has an 18% chance of being impacted from a tornado event. When only the last twenty years are considered, the likelihood of a tornado affecting White County increased to 25% (5 tornados since 1999). There have been 4 tornadoes since the 2016 update.

Individual tornado events can cause extreme damage to an area. This holds true for White County, as well. The strongest and costliest documented tornado to impact White County was an F3 in 1998. This storm traveled through the southern portion of White County. The storm caused \$5,000,000 in damages.



# White County Multi-Jurisdictional Hazard Mitigation Plan

8/12/2019

Tornado Tracks Tool - MRCC

**Tornado Tracks, 1950-2017**

**Show Touchdown Points**

**Filter by Magnitude:**

- F/EF 0 —
- F/EF 1 —
- F/EF 2 —
- F/EF 3 —
- F/EF 4 —
- F/EF 5 —

**Filter by Year Range:**

1950 ▾ through 2017 ▾

**Filter by Month:**

All Months ▾


**Filter by Casualties:**

- Injuries > 0
- Fatalities > 0

**For more information, click any:**

- Track (for tornado data)
- County (for county image)

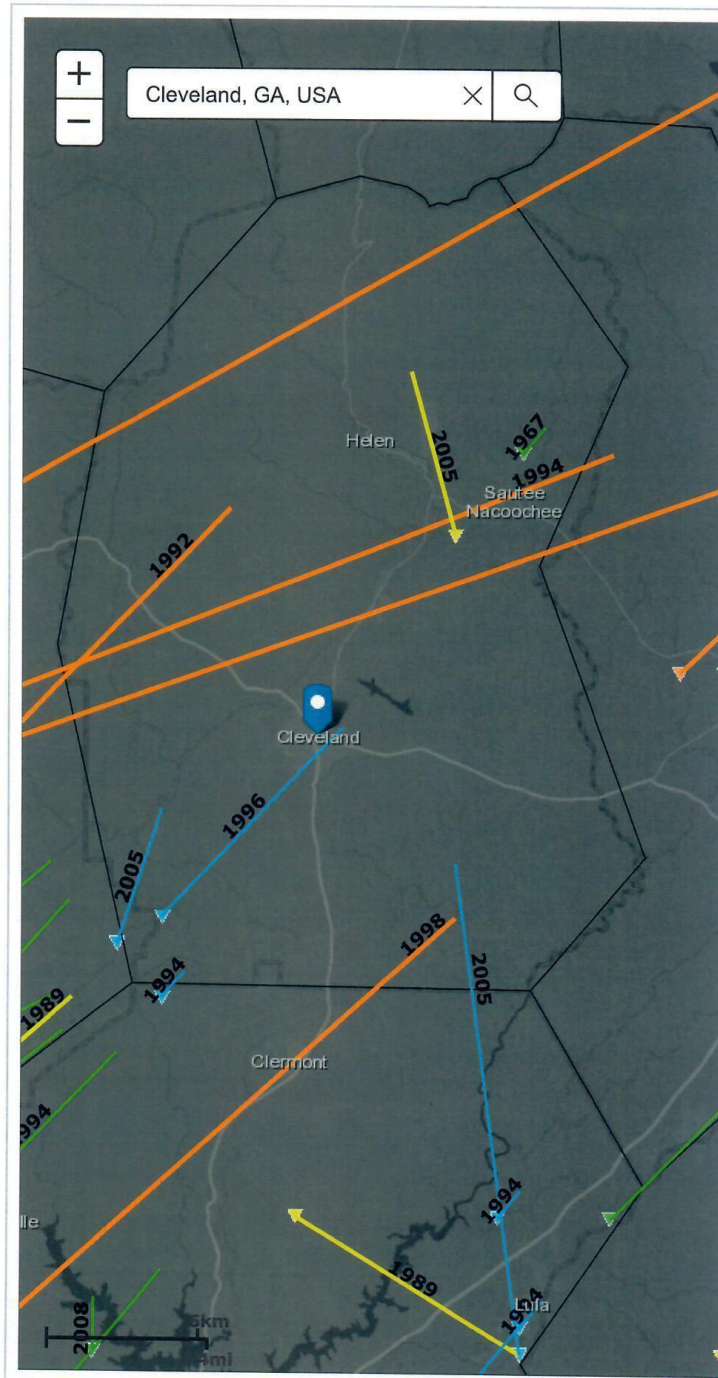
*Please note: Attempting to view many tracks may significantly hinder performance.*



**MRCC**  
Midwestern Regional  
Climate Center

**Send Feedback**

Tornado data from the  
National Weather Service  
Storm Prediction Center:  
<http://www.spc.noaa.gov/gis/svrgis>

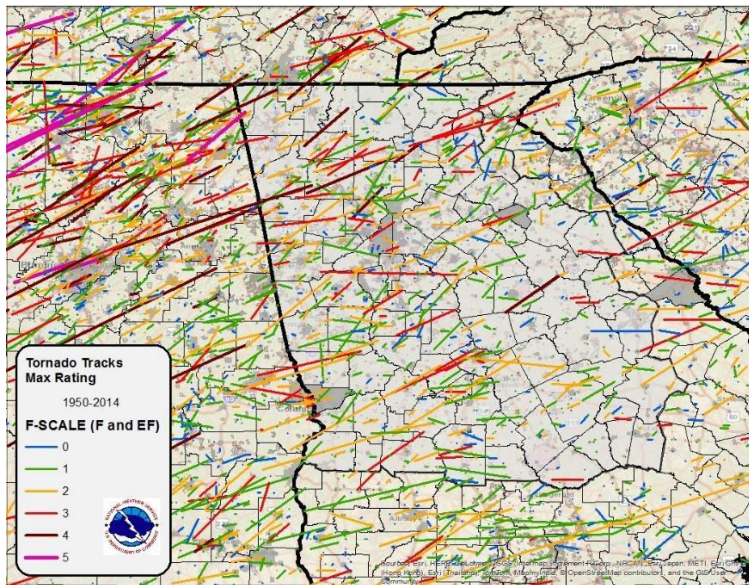


<https://mrcc.illinois.edu/gismaps/cntyorn.htm#>

1/1

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tornado



### *Assets Exposed to the Hazard*

In evaluating assets that are susceptible to tornadoes, the White County HMPC determined that all public and private property is threatened by tornadoes, including all critical facilities. This is due to the lack of spatial prejudice of tornadoes.

### *Estimated Potential Losses*

Estimates of damage for the past events of the last 50 years are \$14.7 million or \$294,100 annually. When only events of the last 20 years are considered, yearly estimations are \$180,000 annually.

Within the HAZUS report, a theoretical tornado path for an EF3 was identified that would inflict maximum damage. HAZUS estimated that this theoretical tornado would cause damage to approximately 261 buildings and result in losses more than \$20 million.

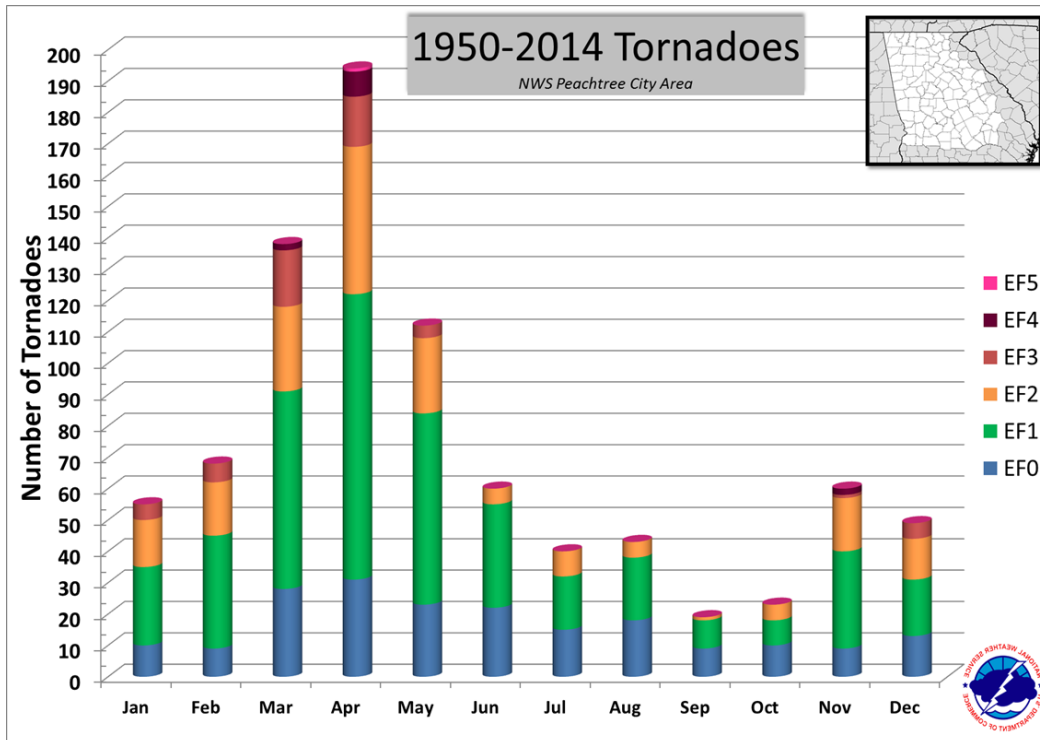
<b>The Enhanced Fujita Scale</b>	
<b>EF Rating</b>	<b>3 second gust (mph)</b>
0	65-85
1	86-110
2	111-135
3	136-165
4	166-200
5	over 200

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tornado

### Land Use & Development Trends

White County currently has no land use trends related to Tornadoes.

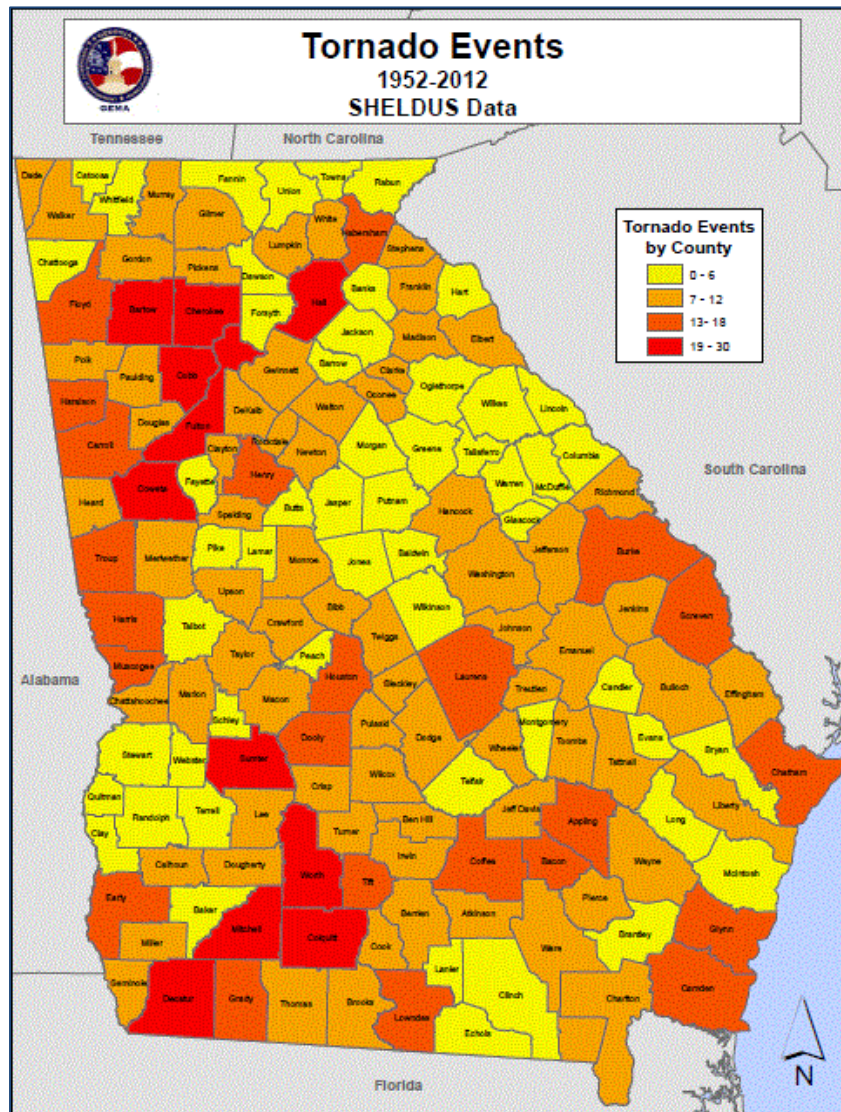


### Multi-Jurisdictional Considerations

All portions of White County could potentially be impacted by a tornado due to the indiscriminate nature of tornadic events. Therefore, all mitigation actions identified regarding tornadoes should be pursued on a countywide basis and include all cities and towns located within White County.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tornado



Source: 2014 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

### Hazard Summary

White County remains at risk to potential damage from tornadoes, especially considering the average of one tornado every 5.5 years over the last 50 years. Should a tornado strike in densely populated areas of the county, significant damage or loss of life could occur. Due to the destructive power of tornadoes, it is essential that the mitigation measures identified in this plan regarding tornado activity receive full consideration.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Drought**

### *Hazard Description*

Drought is a normal, recurrent feature of climate consisting of a deficiency of precipitation over an extended period (usually a season or more). This deficiency results in a water shortage for some social or environmental sector. Drought should be judged relative to some long-term average condition of balance between precipitation and evapotranspiration in a particular area that is considered “normal.” Drought should not be viewed as only a natural hazard because the demand people place on water supply affects perceptions of drought conditions. From limited water supplies in urban areas to insufficient water for farmland, the impacts of drought are vast. Droughts occur in virtually every climatic zone and on every continent. Because the impacts of drought conditions are largely dependent on the human activity in the area, the spatial extent of droughts can span a few counties to an entire country.

Temporal characteristics of droughts are drastically different from other hazards due to the possibility of extremely lengthy durations as well as a sluggish rate of onset. Drought conditions may endure for years or even decades. This factor implicates drought as having a high potential to cause devastation on a given area. The duration characteristic of droughts is so important that droughts are classified in terms of length of impact. Droughts lasting 1 to 3 months are considered short term, while droughts lasting 4 to 6 months are considered intermediate and droughts lasting longer than 6 months are long term. With the slow rate of onset, most populations have some inkling that drought conditions are increasingly present. However, barring drastic response measures, most only must adapt to the changing environment.

Seasonality has no general impact on droughts in terms of calendar seasons. However, “wet” and “dry” seasons obviously determine the severity of drought conditions. In other words, areas are less susceptible to drought conditions if the area is experiencing a wet season. The frequency of droughts is undetermined since the hazard spans such a long period of time. However, climatologists track periods of high and low moisture content similarly to the tracking of cooling and warming periods.

### *Hazard Profile*

The White County HMPC reviewed data for the last 50 years regarding drought conditions. Historically, agricultural losses have accounted for the vast number of losses related to drought conditions.

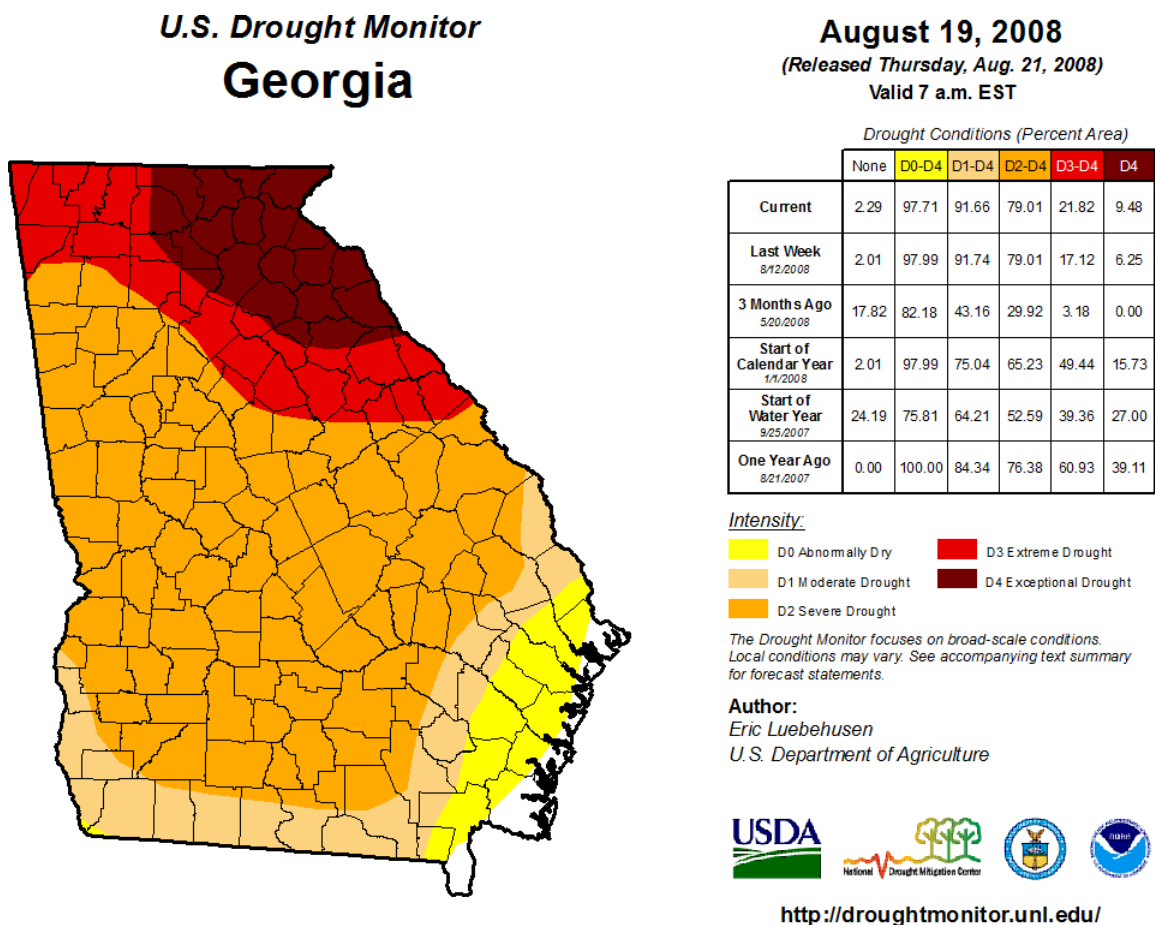
# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Drought

### *(Hazard Profile Continued)*

Due to poor record keeping and the unpredictable nature of drought conditions, reliability of historical data for the last 50 years is low. White County has been impacted by 34 drought events in the last 23 years, according to data from the National Climatic Data Center. This amounts to a 51% chance of a drought for a given year over the last 23 years. The economic impact of these droughts, including crop damage, is \$3,000,000.

There have been two recent examples of “exceptional” drought events affecting White County. These events occurred in 2008 and 2016. Both events reached the D4 (Exceptional Drought) designation, according to data from the United States Drought Monitor. Below are maps of these two events.



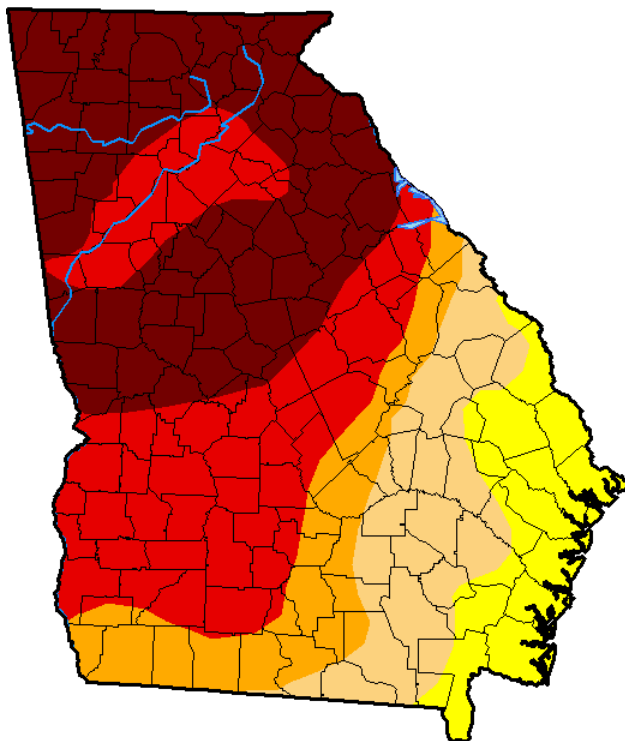
Source: USDA Drought Monitor – University of Nebraska-Lincoln

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Drought

### U.S. Drought Monitor Georgia

**November 29, 2016**  
(Released Thursday, Dec. 1, 2016)  
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	88.87	74.56	62.36	33.22
<b>Last Week</b> <i>11-22-2016</i>	0.00	100.00	76.64	67.76	56.60	33.78
<b>3 Months Ago</b> <i>08-30-2016</i>	18.68	81.32	49.28	28.20	5.27	0.00
<b>Start of Calendar Year</b> <i>12-29-2015</i>	87.36	12.64	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <i>09-27-2016</i>	35.37	64.63	45.84	34.50	14.67	1.58
<b>One Year Ago</b> <i>12-01-2015</i>	87.90	12.10	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Richard Heim  
NCEI/NOAA

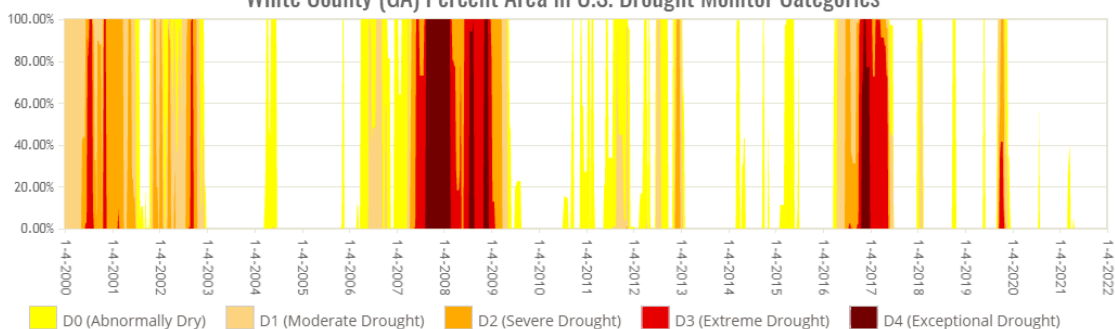


<http://droughtmonitor.unl.edu/>

Source: USDA Drought Monitor – University of Nebraska-Lincoln

Events of this extent can cause water shortages for residential and corporate needs, as well as affecting the ability for firefighting operations to be properly effective. Drought conditions of this extent can have devastating effects on the local agricultural industries, below D4 level droughts.

White County (GA) Percent Area in U.S. Drought Monitor Categories



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## *Assets Exposed to the Hazard*

While drought conditions do not typically pose a direct threat to structures, secondary hazards from drought such as increased wildfire threat, does pose a significant threat to all public and private property in White County, including all critical facilities. Water resources could also become scarce during a drought, a condition that would potentially affect all White County residences and critical facilities.



# White County Multi-Jurisdictional Hazard Mitigation Plan

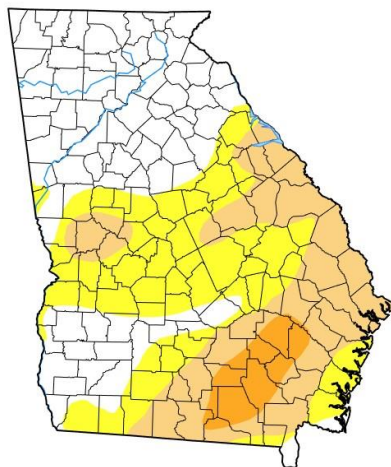
## Natural Hazard: **Drought**

### *Estimated Potential Losses*

No damage to structures or critical facilities is expected as a direct result of drought conditions. However, crop damage and subsequent losses can be expected to occur because of drought conditions. The degree of losses would depend on the duration of the drought, severity of the drought, temperatures during the drought, season in which the drought occurs, and the specific needs of the involved crops. Water system shortages and need for supply assistance for those systems could also lead to economic losses associated with the drought.

According to the 2017 Agriculture Census data, White County's market value of products sold was \$92,828,000. 1,628,000 or 2% of that total represented crop sales. Livestock sales accounted for 98%, or \$91,200,000, of the total value.

### Georgia



Map released: Thurs. May 10, 2018  
Data valid: May 8, 2018 at 8 a.m. EDT

Intensity:

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)

Author(s):  
[David Simeral](#), Western Regional Climate Center

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying [text summary](#) for forecast statements.*

#### Map Download

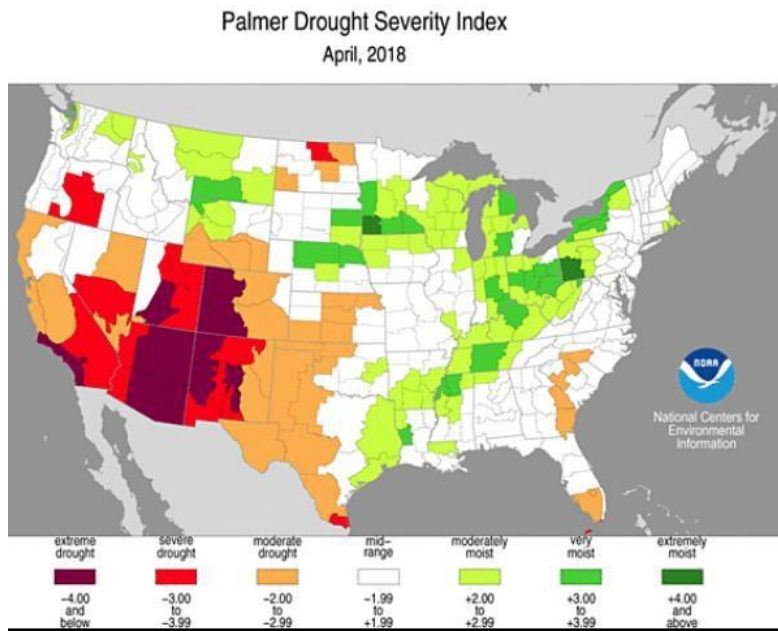
Map without text:  

Map with legend:   

*Source: United States Drought Monitor (University of Nebraska-Lincoln)*

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Drought**



### *Land Use & Development Trends*

As growth continues, drought can become a larger threat for White County due to the increased reliance on water infrastructure and wells countywide. This increased pull on these resources in White County could quicken or deepen the impacts of a drought for residential, commercial, and industrial areas.

### *Multi-Jurisdictional Considerations*

All portions of White County could potentially be impacted by a drought, but agricultural areas of the county are potentially more at risk. Therefore, all mitigation actions identified regarding drought should be pursued on a countywide basis and include all cities and towns located within White County.

### *Hazard Summary*

Drought conditions can cause significant economic stress on the agriculture and forestry interests of White County. The potential negative secondary impacts of drought are numerous. They include increased wildfire threat, decreased water supplies for residential and industrial needs, stream-water quality, and water recreation facilities. The White County HMPC recognizes the potential threats drought conditions could have on the community and have identified specific mitigation actions as a result.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Wildfire**

### *Hazard Description*

A wildfire is an uncontained fire that spreads through the environment. Wildfires can consume large areas, including infrastructure, property, and resources. When massive fires, or conflagrations, develop near populated areas, evacuations could possibly ensue. Not only do the flames impact the environment, but the massive volumes of smoke spread by certain atmospheric conditions also impact the health of nearby populations.

Wildfires result from the interaction of three crucial elements: fuel, ignition (heat), and oxygen. Natural and manmade forces cause the three crucial elements to coincide in a manner that produce wildfire events. Typically, fuel consists of natural vegetation. However, as the urban and suburban footprint expands, wildfires may utilize other means of fuel, such as buildings. In terms of ignition or source of heat, the primary source is lightning. However, humans are more responsible for wildfires than lightning. Manmade sources vary from the unintentional, such as fireworks, campfires, or machinery, to intentional arson. With these two elements provided, the wildfires may spread if oxygen is present.

Weather is the most variable factor affecting wildfire behavior. Strong winds propel wildfires quickly across most landscapes unless firebreaks are present. Shifting winds create erratic wildfires, which can complicate fire management efforts. Dry conditions provide faster-burning fuels, either making the area more vulnerable to wildfire or increasing the mobility of preexisting wildfires.

Wildfires are notorious for spawning secondary hazards, such as flash flooding and landslides, long after the original fire is extinguished. Both flash flooding and landslides result from fire consuming the natural vegetation that provides precipitation interception and infiltration as well as slope stability.

All of Georgia is prone to wildfire due to the presence of wildland fuels associated with wildfires. Land cover associated with wildland fuels includes coniferous, deciduous, and mixed forest; shrubland; grassland and herbaceous; transitional; and woody and emergent herbaceous wetlands. The spatial extent of wildfire events greatly depends on both the factors driving the fire as well as the efforts of fire management and containment operations.

See [\*\*Appendix D\*\*](#) for more Wildfire Mitigation Planning.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Wildfire**

### *(Hazard Description Continued)*

In terms of seasonality, wildfires can occur during any season of the year. However, drier seasons, which vary within the State of Georgia, are more vulnerable to severe wildfires because of weather patterns and the abundant quick-burning fuels. In terms of rate of onset and duration, wildfires vary depending on the available fuels and weather patterns. Some wildfires can engulf an area in a matter of minutes from the first signs whereas others may be slower burning and moving. The frequency of wildfires is not typically measured because of the high probability of human ignition being statistically unpredictable. Magnitude and intensity are typically only measured by size of the wildfire and locations of burning.

Three classes of fires include understory, crown, and ground fires. Naturally induced wildfires burn at relatively low intensities, consuming grasses, woody shrubs, and dead trees. These understory fires often play an important role in plant reproduction and wildlife habitat renewal and self-extinguish due to low fuel loads or precipitation. Crown fires, which consist of fires consuming entire living trees, are low probability but high consequence events due to the creation of embers that can be spread by the wind. Crown fires typically match perceptions of wildfires. In areas with high concentrations of organic materials in the soil, ground fires may burn, sometimes persisting undetected for long periods until the surface is ignited.

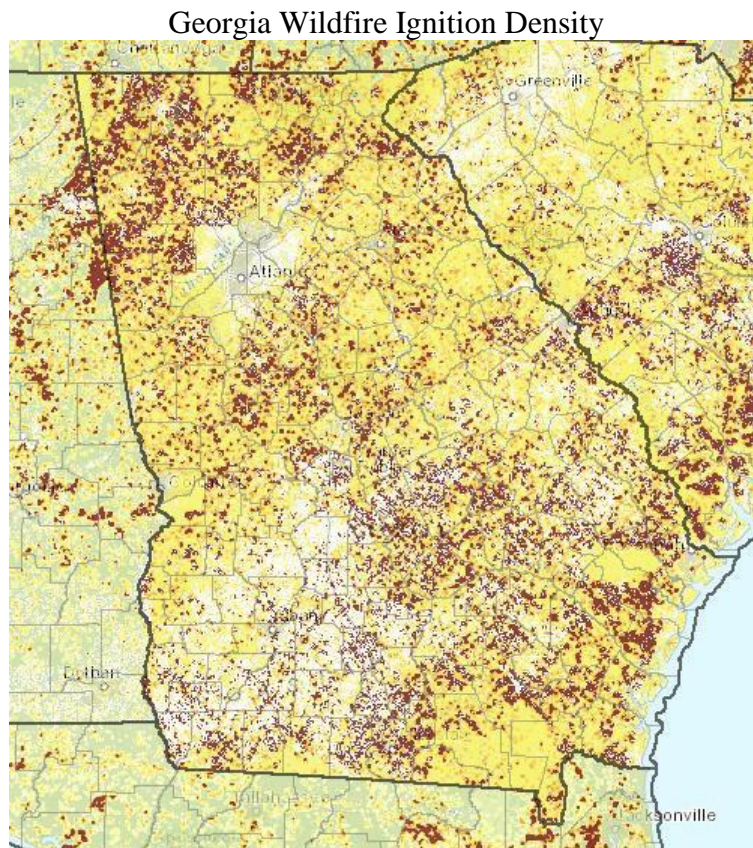
### *Hazard Profile*

Wildfires pose a serious threat to White County. This is a result of the high amount of forestland and vegetation available to fuel potential wildfires. Also, there is an increasing amount of wildland-urban interface (WUI) in White County, which is defined as areas where structures and other human development meets undeveloped wildland properties. 98% of White County's population lives within the WUI.

According to the 2016 Community Wildfire Protection Plan (CWPP) for White County (most currently available) White County has averaged 9 fires per year over the last 55 years. These fires have burned an average of 34.71 acres. Over the last six years, White County has continued to average 9 fires per year and acreage burned has decreased to 34.71 acres per year. During the six-year time frame, two residential buildings and six non-residential buildings have been destroyed by wildfire for a total loss of \$642,000. This equates to an annual loss of \$107,000 per year.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Wildfire**



*Source: Southern Group of State Foresters Wildfire Risk Assessment Portal*

### *Assets Exposed to the Hazard*

All public and private property located within the Wildland-Urban Interface, including critical infrastructures, are susceptible to impacts from wildfires. Due to the large area of wildland area in White County and the large amount of WIU, all public and private property, including critical infrastructures, could be directly or indirectly impacted by the threat of wildfire.

### *Estimated Potential Losses*

Little information is available regarding damages, in terms of dollars, for wildfire losses in White County. According to the 2017 Ag Census by the USDA, White County has \$1,628,000 in annual crop sales. These areas would potentially be impacted by a wildfire event.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Wildfire**

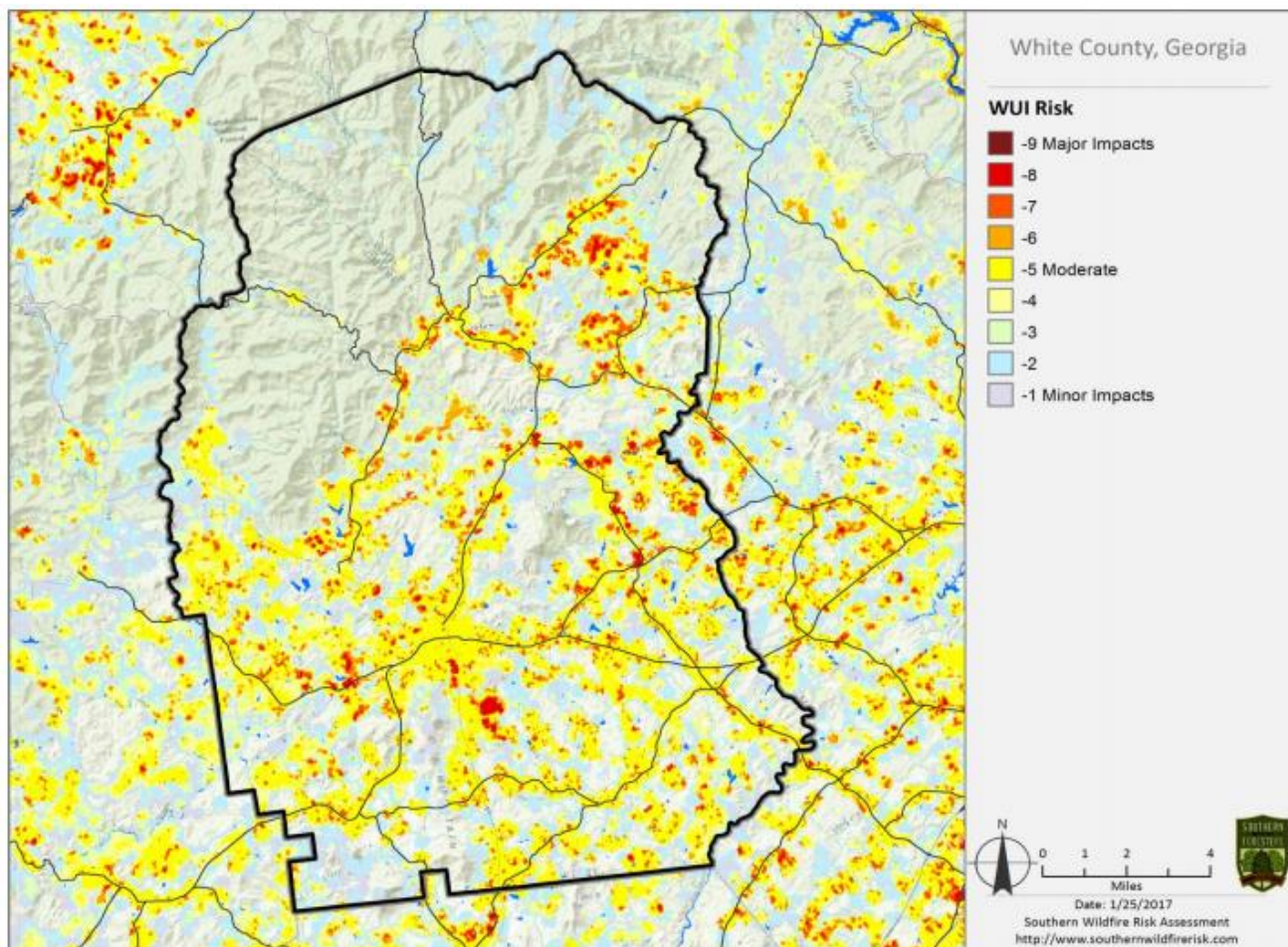
### *Land Use & Development Trends*

With the continued increase in population, Wildland-Urban Interface (WUI) is increasing in White County. The WUI creates areas where fire can easily move from wildland areas into developed areas and threaten structures and human life. The expansion of the WUI in White County complicated wildland fire management operations and planning initiatives. This development trend is expected to continue in the future.

### *Multi-Jurisdictional Considerations*

All portions of White County, including all municipalities, could potentially be impacted by a wildfire due to the large amount of Wildland-Urban Interface, but the less developed areas of the county are more vulnerable. Therefore, all mitigation actions identified regarding wildfires should be pursued on a countywide basis and include all cities and towns located within White County.

White County Wildland Urban Interface Risk



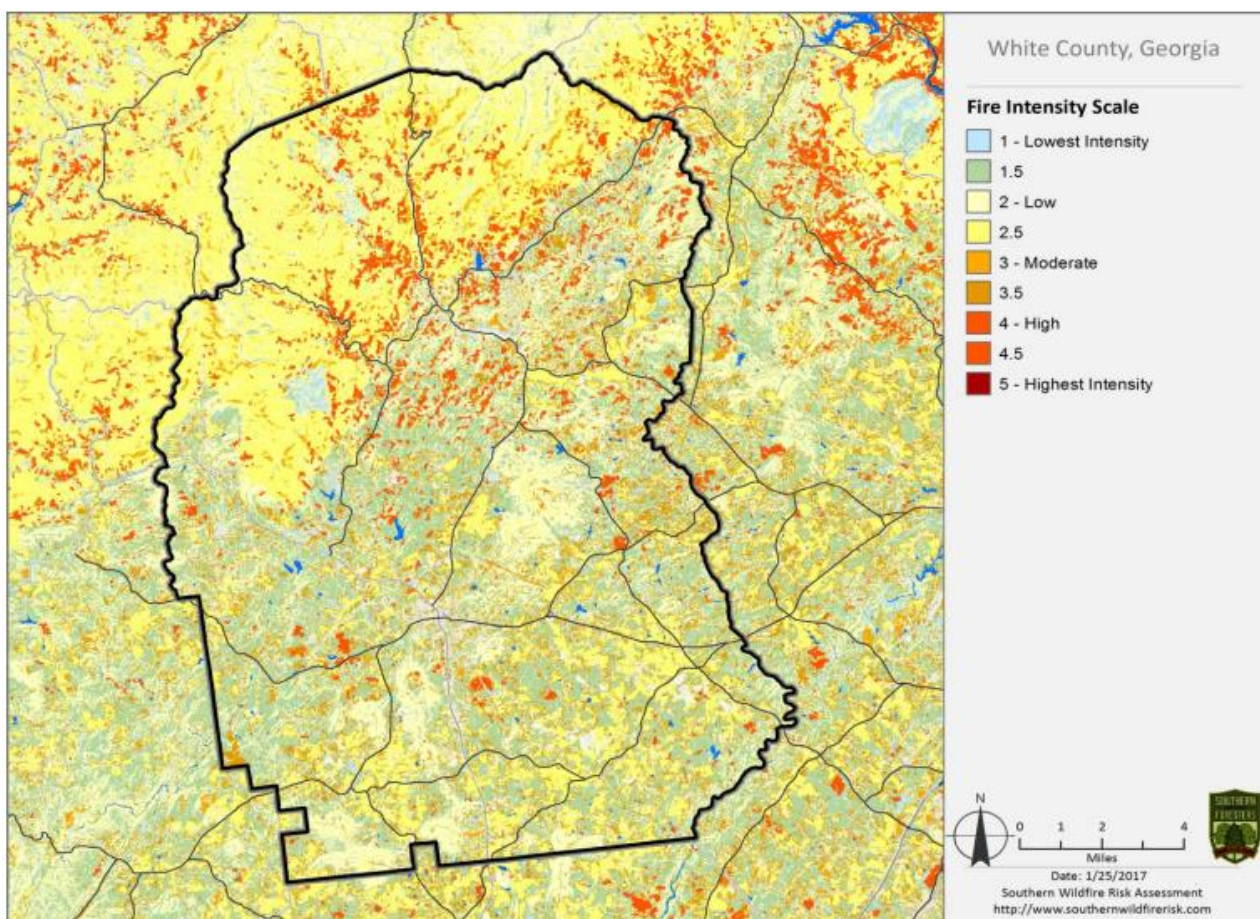
# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Wildfire**

### *Hazard Summary*

Wildfire is a significant threat to White County due to the increased amount of Wildland-Urban Interface. The increasing amount of area where structures and other human development meets undeveloped, wildland property is where 98% of White County's population lives. The mitigation measures identified in this plan should be aggressively pursued based on the high frequency of this hazard and the ability for wildfires to inflict devastation anywhere in White County.

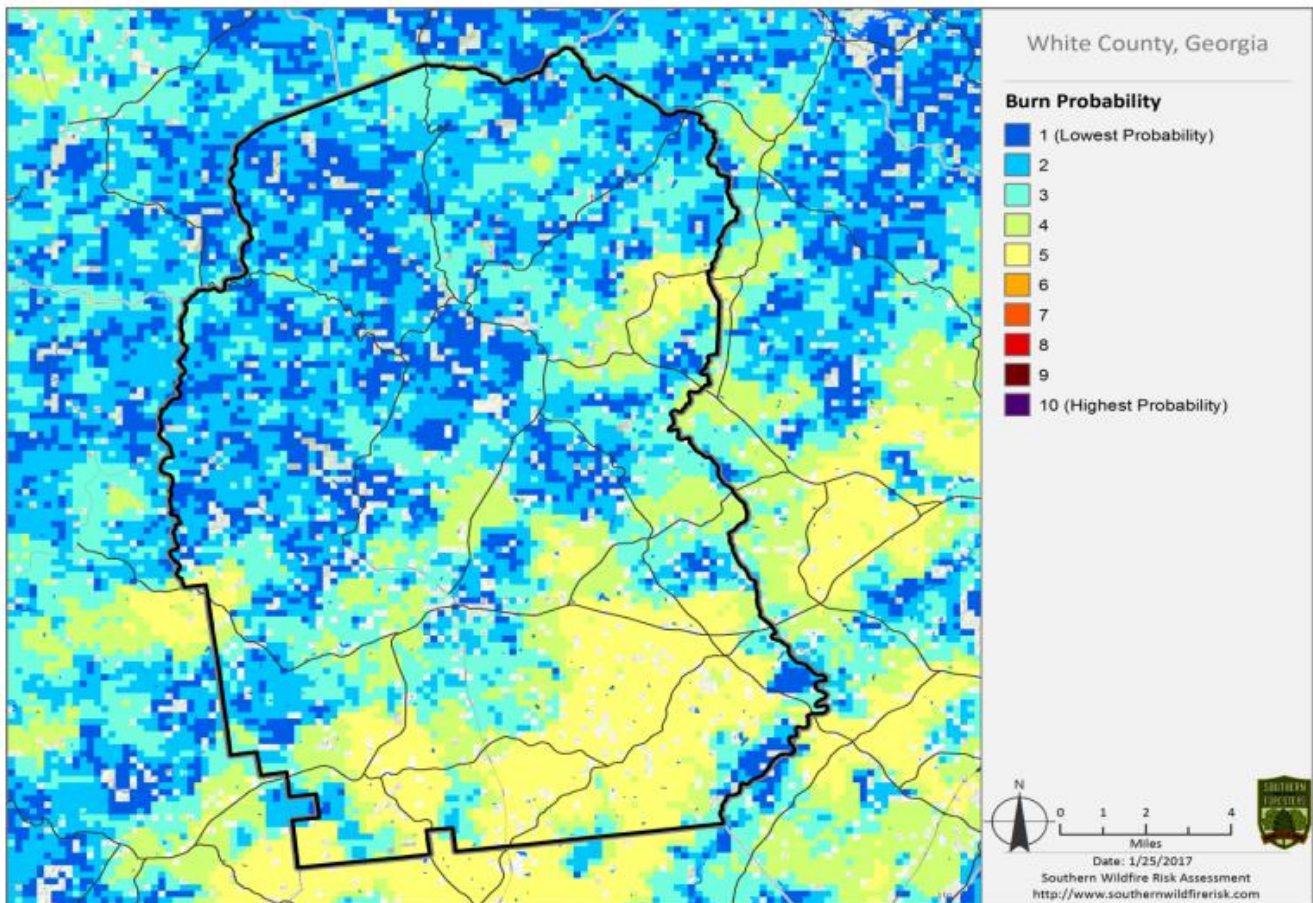
White County Wildfire Intensity



# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: **Wildfire**

### Wildfire Burn Probability





# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tropical Cyclone

### *Hazard Description*

The National Weather Service describes tropical cyclones systems in the Atlantic Basin, including the Gulf of Mexico and Caribbean Sea, into four types based on strength.

**Tropical Disturbance:** A discrete tropical weather system of apparently organized thunderstorms – generally 100 to 300 nautical miles in diameter – originating in the tropics or subtropics and maintaining its identity for 24 hours or more.

**Tropical Depression:** An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph (33 knots) or less.

**Tropical Storm:** An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39 mph to 73 mph (34-63 knots).

**Hurricane:** An intense tropical weather system with a well-defined circulation, producing maximum sustained winds of 74 mph (64 knots) or greater. Hurricane intensity is classified into five categories using the Saffir-Simpson Hurricane scale. Winds in a hurricane range from 74-95 mph for a Category 1 hurricane to greater than 156 mph for a Category 5 hurricane.

Saffir-Simpson Scale for Hurricane Classification				
Strength	Wind Speed (Kts)	Wind Speed (MPH)	Pressure (Millibars)	Pressure
Category 1	64- 82 kts	74- 95 mph	>980 mb	28.94 "Hg
Category 2	83- 95 kts	96-110 mph	965-979 mb	28.50-28.91 "Hg
Category 3	96-113 kts	111-130 mph	945-964 mb	27.91-28.47 "Hg
Category 4	114-135 kts	131-155 mph	920-944 mb	27.17-27.88 "Hg
Category 5	>135 kts	>155 mph	919 mb	27.16 "Hg
Tropical Cyclone Classification				
Tropical Depression		20-34kts		
Tropical Storm		35-63kts		
Hurricane		64+kts or 74+mph		

# White County Multi-Jurisdictional Hazard Mitigation Plan

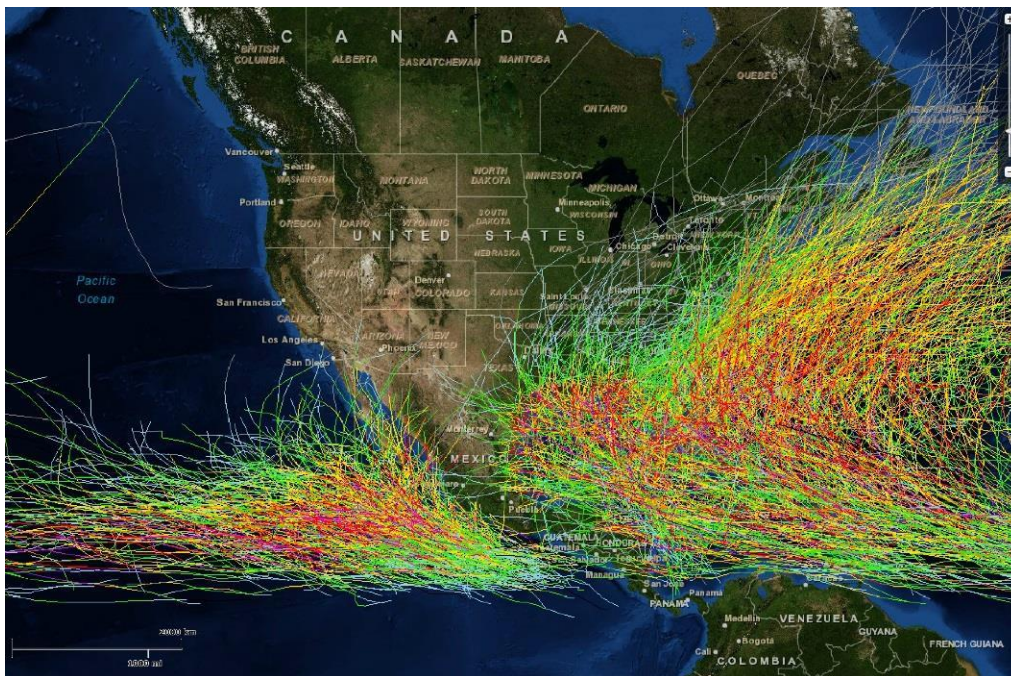
## Natural Hazard: Tropical Cyclone

### *(Hazard Description Continued)*

Tropical cyclones can cause catastrophic damage to coastlines and areas several hundred miles inland. Tropical cyclones can produce sustained high winds and spawn tornadoes and microbursts. Additionally, tropical cyclones can create storm surges along the coast and cause extensive damage from heavy rainfall. Floods and flying debris from the excessive winds are often the deadly and destructive results of these weather events.

Slow moving tropical cyclones traveling into mountainous regions tend to produce especially heavy rain. Excessive rain can trigger landslides or mudslides. Flash flooding can also occur due to intense rainfall.

Each of these hazards' present unique characteristics and challenges; therefore, the following have been separated and analyzed as individual hazards: Tropical cyclones, Thunderstorms, Tornadoes, and Flooding. This section will focus on the direct effects of tropical cyclones.



### *Hazard Profile*

Tropical cyclones have directly impacted White County on an infrequent basis over the last 50 years. However, the possibility of a hurricane or tropical storm retaining their wind strength as far inland as White County is possible.

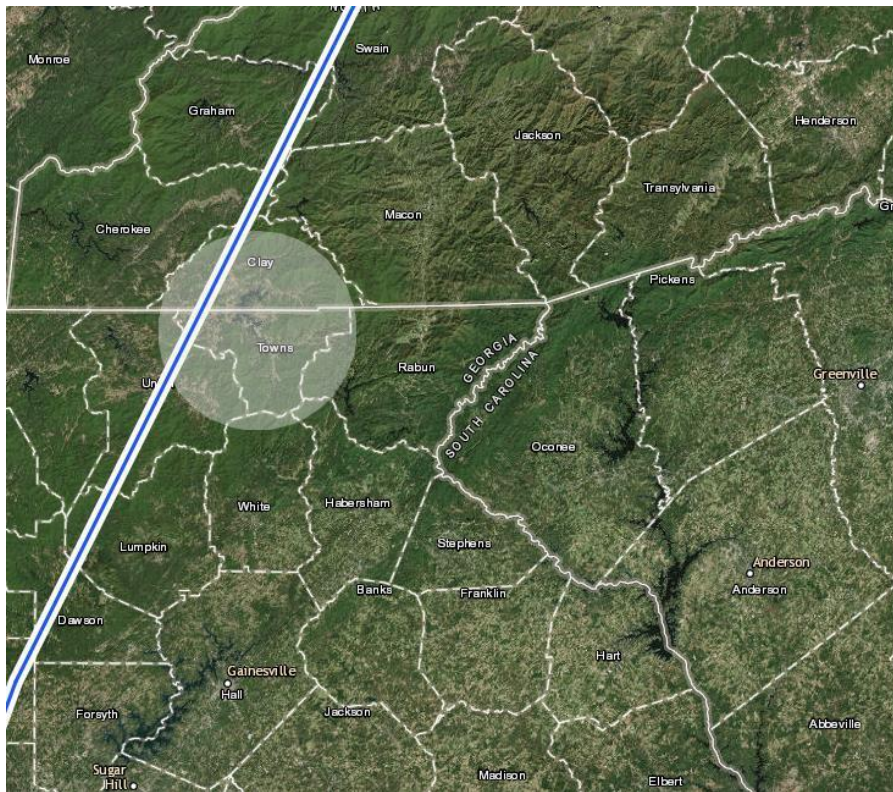
# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tropical Cyclone

### *(Hazard Profile Continued)*

There have been fifteen documented impacts from Tropical Cyclones in White County through 2017. This equates to a 30% chance of a tropical cyclone impacting White County in any given year. All these impactful storms have occurred in the last 16 years, which equates to a 93% chance of a tropical cyclone impacting White County each year. The White County Hazard Mitigation Update Committee believes this percentage is more representative of the potential impact.

Only one storm – Hurricane Frances in 2004 – had a track that directly dissected White County in the last 50 years. This storm was below Tropical Storm strength at the time they entered White County. Frances brought strong winds across north Georgia with sustained speeds of 35-40 mph and gusts more than 50 mph.



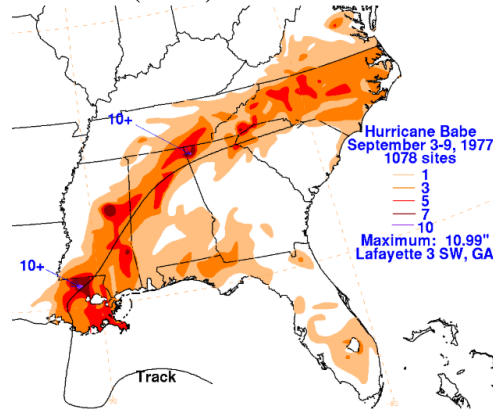
*Source: Office of Coastal Management (NOAA)*

According to the 2019 White County HAZUS, White County has been impacted by three additional Tropical Cyclones in the last 50 years – Hurricane Babe in 1977, Tropical Storm Bill in 2003, and Hurricane Cindy in 2005. Additionally, White County was impacted by Hurricane Irma in 2017.

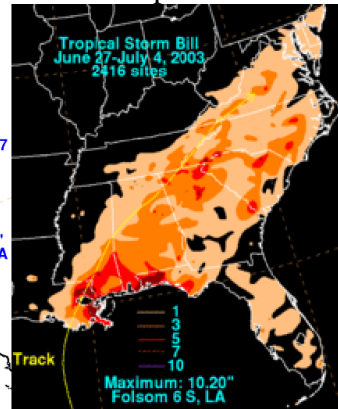
# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tropical Cyclone

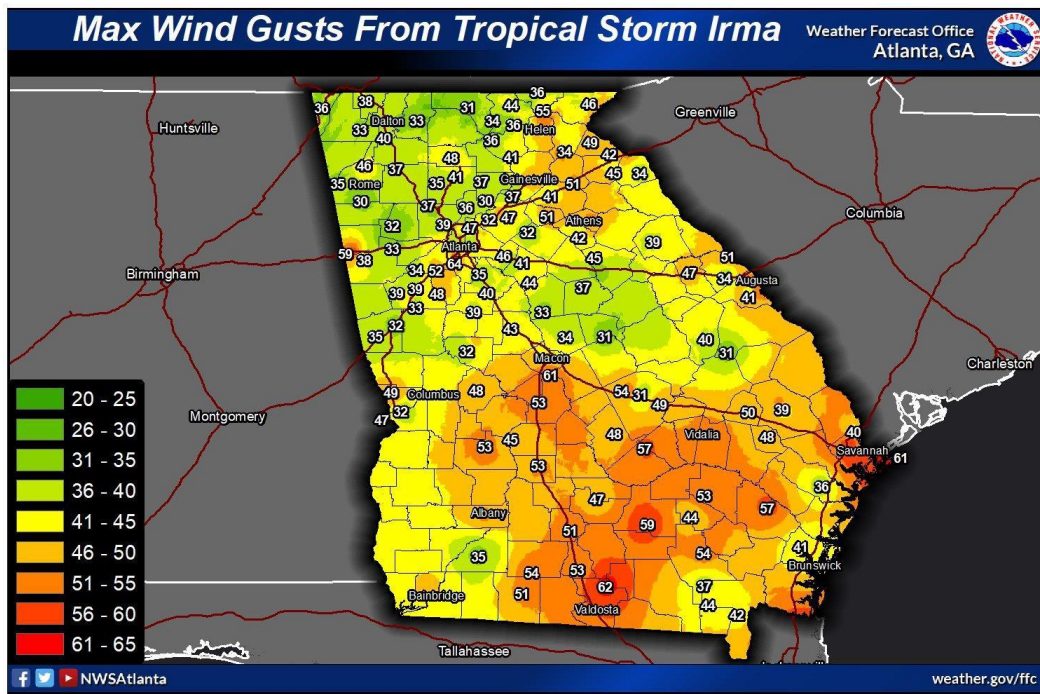
Hurricane Babe (1977)



Tropical Storm Bill (2003)

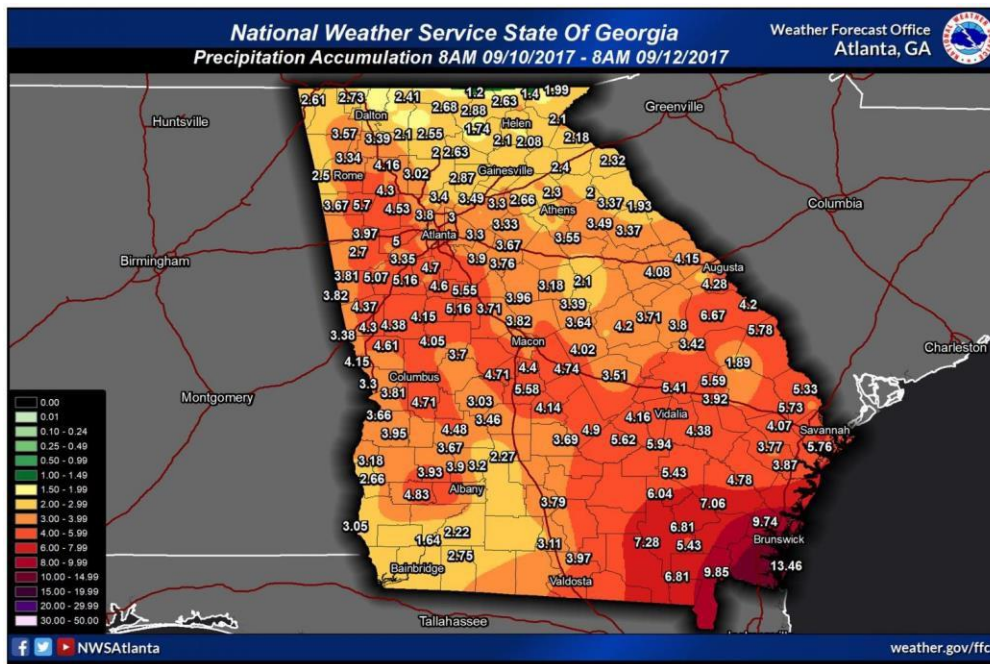


Hurricane Irma downed numerous trees in White County, according to the National Weather Service Storm Report. Several major roadways were closed due to fallen trees and thousands of customers were without power. A gust of 55 mph was recorded at the Brasstown RAWS. A total of \$50,000 in damages was reported for Hurricane Irma, although this is thought to be a significant underestimation.



# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tropical Cyclone



Even with the infrequent occurrences, the impacts that would result from hurricane or tropical storm forces on the citizens, infrastructure, and critical facilities of White County could be potentially catastrophic in nature.

### *Assets Exposed to the Hazard*

The White County HMPC determined that all critical facilities and all public and private property within White County are susceptible to the direct and indirect impacts of a tropical cyclone. This includes all cities and towns located within White County.

### *Estimated Potential Losses*

Little information is available regarding damages, in terms of dollars, is available for tropical cyclone losses in White County. Most losses for these events have been labeled under other impacts, such as tornadoes and flooding. However, the 2019 White County HAZUS Report projected a loss ratio of 0.01% and a total loss of \$135,960 for a 100-year Tropical Storm Event.

### *Land Use and Development Trends*

White County currently has no land use trends related to Tropical Cyclones.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Natural Hazard: **Tropical Cyclone**

### *Multi-Jurisdictional Considerations*

All White County, including all municipalities, potentially could be threatened by tropical cyclones. As such, all tropical cyclone mitigation actions should be pursued on a countywide basis and include all cities and towns located within White County.

### *Hazard Summary*

Even with the relative infrequency of tropical cyclone impacts in White County in the recent past, the potential losses and impacts associated with the event would severely damage the infrastructure and economic viability of the County and its municipalities. White County's proximity to the Atlantic coast increases the likelihood of a tropical cyclone impacting the area. The mitigation measures identified in this plan for tropical cyclones should be pursued based on the high impact potential of this hazard and the ability for tropical cyclones to inflict widespread devastation anywhere in White County.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Natural Hazard: Tropical Cyclone

### Storm Events Database

#### Search Results for White County, Georgia

Event Types: [Hurricane \(Typhoon\)](#), [Tropical Depression](#), [Tropical Storm](#)

White county contains the following zones:

'White'

15 events were reported between 08/01/1950 and 08/31/2020 (25599 days)

#### Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	15
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	1
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	2

#### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on **Location** below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By: Date/Time (Oldest) ▾

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
<b>Totals:</b>							0	0	50.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	09/14/2002	11:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	07/01/2003	00:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	09/06/2004	12:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	09/16/2004	00:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	09/26/2004	00:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	06/12/2005	00:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	07/06/2005	15:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	07/10/2005	10:00	EST	Hurricane (typhoon)	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	08/29/2005	11:00	EST	Hurricane (typhoon)	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	10/05/2005	04:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	09/14/2007	00:00	EST-5	Hurricane (typhoon)	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	08/21/2008	12:00	EST-5	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	11/10/2009	05:00	EST-5	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	09/04/2011	11:00	EST-5	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">WHITE (ZONE)</a>	WHITE (ZONE)	GA	09/11/2017	16:00	EST-5	Tropical Storm	0	0	50.00K	0.00K	
<b>Totals:</b>							0	0	50.00K	0.00K	

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Hazardous Materials**

### *Hazard Description*

Hazardous materials, or hazmat, refers to any materials that may pose a real hazard to human health and/or the environment because of its quantity, concentration, and/or physical or chemical characteristics. Hazardous materials include explosives, flammables, combustibles, oxidizers, toxic materials, radioactive substances, and corrosives. Specific federal and state regulations exist regarding the transport and storage of hazardous materials.

A hazardous materials spill or release occurs when a hazardous material gets into the environment in an uncontrolled fashion. Response to a hazmat spill or release depends greatly on the type of material involved and the subsequent physical and chemical characteristics. Major sources of hazardous materials spills include transportation accidents on roadways and railways, pipeline breaches, and spills into rivers and creeks. Jurisdictions with facilities that produce, process, or store hazardous materials are at risk, as are facilities that treat or dispose of hazardous materials.

### *Hazard Profile*

Data from the United States Coast Guard National Response Center was reviewed regarding hazardous materials spill history in White County. Data is available from 1982 to 2019 and all available data was reviewed. There were 10 NRC reported hazardous materials spills or releases in White County over a 25-year period. It is anticipated that many more hazardous materials incidents have occurred over the last 25 years but have not been reported. According to the NRC data, White County averages 0.1 hazardous materials incidents of a reportable amount in any given year or one incident every 8.3 years. The reported incidents led to 3 injuries. The greatest threat for a hazardous materials spill comes from the transportation of materials through White County. This is particularly true for the US Highway 129 corridor that runs through the center of the county.

Hazardous materials releases can also be the result of railway or fixed facility incidents. Fixed facilities continue to be an increasing concern due to White County's growing industrial footprint. 33% of reported hazardous materials incidents have occurred at fixed facilities.

### *Assets Exposed to Hazard*

The environment is particularly vulnerable to the threat posed by hazardous materials. Waterways are at a high risk for contamination from hazardous materials. Public and private property located near fixed hazardous materials facilities are also a greater risk than the general population of White County.



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Hazardous Materials**

### *Estimated Potential Losses*

Estimation of potential losses is difficult regarding hazardous materials due to the vast array of potential types of hazardous materials that could be involved in the incident and unknown costs regarding environmental damages. No recorded information was found regarding the losses associated with hazardous materials incidents in White County. However, a hazardous materials release, whether in transport or at a fixed facility, would incur significant costs regarding emergency response, potential road closures, evacuations, watershed protection measures, expended man-hours, and cleanup materials, equipment, and personnel

### *Land Use and Development Trends*

White County currently has no land use trends related to Hazardous Materials.

### *Multi-Jurisdictional Considerations*

All White County, including all municipalities, are vulnerable to both fixed facility and transportation-related hazardous materials releases.

### *Hazard Summary*

Hazardous materials incidents pose a significant threat to the citizens, infrastructure, and critical facilities of White County. Unknown quantities of hazardous materials are transported daily through White County and its municipalities. These materials are transported via highways, with Highway 129 being of greatest concern. As a result of the threat posed by hazardous materials, the White County HMPC has identified mitigation actions directly related to this threat.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Dam Failure**

### *Hazard Description*

Georgia law defines a dam as any artificial barrier, which impounds or diverts water, is 25 feet or more in height from the natural bed of a stream or has an impounding capacity at maximum water storage evaluation of 100 acre-feet or more. Dams are generally constructed to provide a ready supply of water for drinking, irrigation, recreation, and other purposes. Dams can be constructed from earth, rock, masonry, concrete, or any combination of these materials.

Dam failure is a term used to describe a significant breach of a dam and the subsequent loss of contained water. Dam failure can cause significant damages downstream to structures, roads, utilities, and crops. Dam failure can also put human and animal lives at risk. National statistics indicate that one-third of all dam failures in the United States are caused by overtopping due to inadequate spillway design, debris blocking spillways, or settlement of the dam crest. Another third of all US dam failures are the result of foundation defects, including settlement and slope instability.

### *Hazard Profile*

There are 11 category I and 33 category II dams located within White County. Category I dams are those that would pose a possible threat to human life if a failure were to occur. All category I dams must be inspected annually according to Georgia's Safe Dams Act. The threat of a dam failure in White County could potentially lead to downstream flooding. This downstream flooding would have many of the same hazards as a flood event, but with the onset of such an event being much quicker than in a typical flood event.

### *Assets Exposed to Hazard*

To evaluate the assets that would potentially be impacted by a dam failure, the White County HMPC attempted to identify known structures within, or close to, the 100-year floodplain. White County's municipalities could be exposed to the hazards of other dams or face secondary hazards from the category I dams.

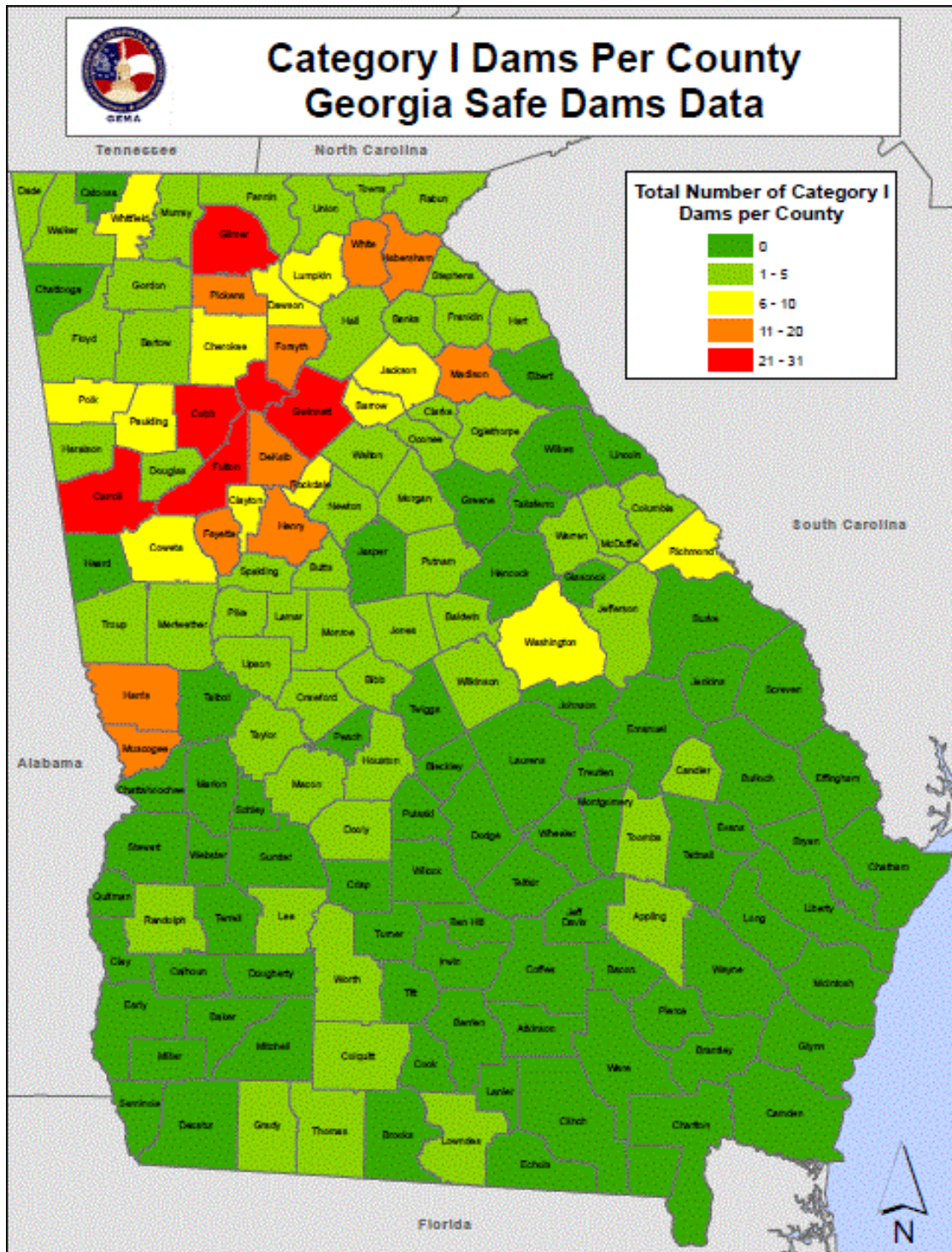
### *Estimated Potential Losses*

Loss estimations are not applicable since it is not known which dam will fail and how significant of failure will occur.

See **Appendix – F Maps** for Category I Dam Failure Flooding Potential

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Technological Hazard: Dam Failure



Source: 2014 State of Georgia Hazard Mitigation Strategy (most up-to-date version)

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Dam Failure**

### *Land Use and Development Trends*

White County continues to have population increases. This continued growth within White County has led to a 12% population increase between 2000 and 2010.

White County participates in the National Flood Insurance Program (NFIP) and follows the program's guidelines to ensure future development is carried out in the best interests of the public. The County (CID No. 130191) first entered the NFIP on July 6, 1998. According to the NFIP guidelines, the County has executed a Flood Damage Prevention Ordinance. This ordinance attempts to minimize the loss of human life and health as well as minimize public and private property losses due to flooding. The ordinance requires any potential flood damage be evaluated at the time of initial construction and that certain uses be restricted or prohibited based on this evaluation. The ordinance also requires that potential homebuyers be notified that a property is in a flood area. In addition, all construction must adhere to the Georgia State Minimum Standard Codes and the International Building Codes. Currently, the White County municipalities of Cleveland and Helen also participate in NFIP.

### *Multi-Jurisdictional Considerations*

During a dam failure event, many portions of White County would potentially be impacted by flooding. However, the area's most prone to flooding have historically been those areas located within the 100-year floodplain and downstream from dams.

### *Hazard Summary*

Dam failure poses a threat to White County and its citizens, infrastructure, and critical facilities. A dam failure could prove catastrophic for areas downstream of the dam, particularly those areas downstream of one of the Category I dams. As a result, mitigation efforts for dam failure should be focused in this potentially affected area.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Transportation Incident**

### *Hazard Description*

There are many secondary hazards that could be associated with transportation incidents. Injuries or deaths can occur because of the impact of a transportation accident, by a hazardous materials release because of a transportation incident, or by other related transportations hazards.

Transportation can occur via roadways, highways, interstates, railways, air, or navigable waterways. Each transportation type poses their own unique hazard issues and consequences. Roadway hazards are most likely to be caused by a motor vehicle accident involving one or more cars, trucks, vans, or transport vehicles. These incidents can have injuries because of the impact of the MVA or a hazardous materials release into the local environment, including waterways.

Railway incidents pose many of the same dangers as motor vehicle accidents. However, the threat of a hazardous materials release is greatly increased when railway transportation incidents are considered.

Air accidents can include commercial airplanes, private airplanes, hot air balloons, helicopters, or other forms of air travel. Each of these incidents can cause a significant threat to human life as well as posing a hazardous material threat due to the cargo being transported or the fuel being used. Navigable waterway incidents can create formidable incidents for response organizations. Because of the waterway, technical expertise is needed to carry out rescue operations, especially in swift-moving waterways. Also, any incident in a waterway is likely to have environmental impacts.

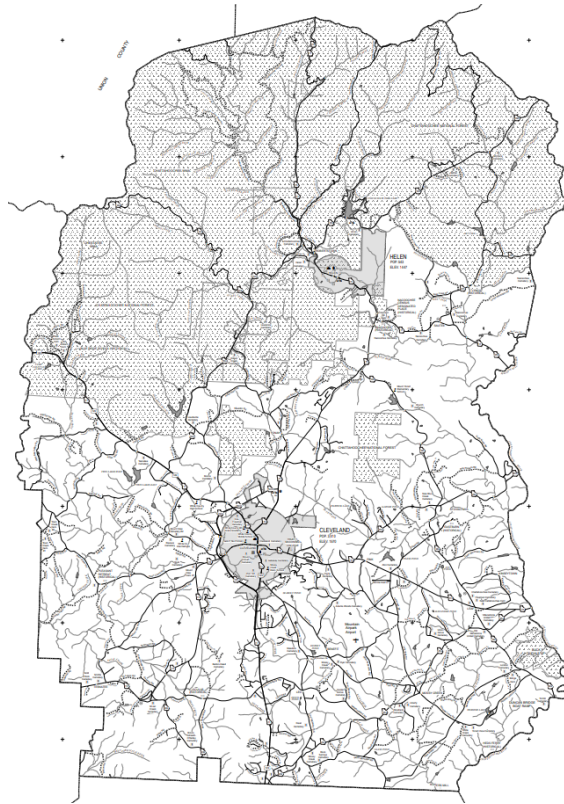
### *Hazard Profile*

Transportation incidents are of a significant concern in White County. Passing through White County are US Highway 129, and Georgia State Routes 17, 19, 75, 75A, 115, 254, 255, 284, 356 and 384.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Transportation Incident**



### *Assets Exposed to Hazard*

All assets and critical facilities located along or near any transportation route could potentially be impacted by a transportation incident. Areas within White County that are not located along or near a transportation route could still face residual impacts.

### *Estimated Potential Losses*

Estimated potential losses cannot be anticipated with this event due to the vast number of differing scenarios regarding transportation incidents.

### *Land Use and Development Trends*

White County currently has no land use trends related to Transportation Incidents beyond an increase in overall population which, in turn, increases the likelihood and potential impact of a transportation incident.

### *Multi-Jurisdictional Considerations*

White County as well as all municipalities could potentially be impacted by a transportation incident. However, areas along US Highway 129 are the greatest at risk. This includes the municipality of Cleveland.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Transportation Incident**

### *Hazard Summary*

The White County HMPC has determined that transportation incidents pose a high risk to their jurisdictions due to the unpredictable nature and likelihood of the incident. As a result, the White County HMPC has developed mitigation strategies and actions with transportation incidents in mind.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Terrorism**

### *Hazard Description*

The Federal Bureau of Investigation (FBI) defines terrorism as violent acts or acts dangerous to human life that violate federal or state law, appear to be intended to intimidate or coerce a civilian population, affect the conduct of a government by mass destruction, assassination, or kidnapping, and is calculated to influence or affect the conduct of a government by intimidation or retaliate against government conduct. Terrorism is usually referenced as being premeditated and politically motivated.

Terrorist acts are, by their very nature, designed and carried out with the intention of inflicting mass casualties and extensive property damage. When an act of terrorism is carried out in a jurisdiction, it will likely be necessary to implement multiple aspects of the emergency management system and summon additional resources from local, state, and federal partners. Terrorism is generally divided into two types: domestic terrorism and international terrorism. Domestic terrorism is defined as terroristic acts focused on facilities and populations without foreign direction. International terrorism involves activities that are foreign-based and/or sponsored by organizations outside of the United States.

Terrorists often use threats to create fear among the public, to convince citizens that government is powerless to prevent terrorism and to get immediate publicity for their causes. Weapons of Mass Destruction (WMDs), including incendiary, explosive, chemical, biological, radiological, and nuclear agents, have the capability to cause death or serious bodily injury to a significant number of people, thus posing the threat of a catastrophic incident. Terrorism can also include arson, Agri-terrorism, armed attack, intentional hazardous materials release, and attacks on infrastructure and electronic information systems.

### *Hazard Profile*

Terrorism targets have historically been facilities that make a large economic or social impact on the targeted government or jurisdiction. In White County, all critical facilities could be seen as potential targets. Terrorism includes a multitude of potential approaches, including Agri-terrorism, which is terrorism targeted toward agriculture. Due to the high economic impact of agriculture in White County, Agri-terrorism could be of concern.

While active shooter situations are not always classified as terrorism, for this plan, the White County HMPC has chosen to classify them as such. Active shooter situations can occur in any location, including businesses, schools, government buildings, and public spaces. Schools are seen as particularly vulnerable to these types of situations due to the high publicity of recent active shooter events. While active shooter events and other acts of terrorism occur worldwide, they have low probability for White County but would have devastating impacts if they were to occur. To help mitigate some of these impacts, White County has exercised an active shooter response in the past to better prepare for any such event.



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Terrorism**

### *Assets Exposed to the Hazard*

Due to the unpredictable nature of terrorism, all public and private structures are threatened by the terrorism hazard. This includes all critical facilities.

### *Estimated Potential Losses*

Losses due to terrorism are difficult to estimate due to the unpredictable nature of terrorism. The type of terrorist act carried out, location of the act, and the impact of the act would all affect the potential losses. Please see the critical facilities information for estimated potential losses for each critical facility.

### *Land Use and Development Trends*

White County currently has no land use trends related to Terrorism.

### *Multi-Jurisdictional Considerations*

All White County, including all municipalities, are vulnerable to potential acts of terrorism. However, critical facilities and their surrounding areas are at the greatest risk.

### *Hazard Summary*

Terrorism, while a low-probability hazard, would have devastating effects on White County and its municipalities. These impacts would be immediate and long-lasting and could be potentially economically crippling. Because of these considerations, the White County HMPC has developed mitigation actions with terrorism in mind.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Technological Hazard: **Communications Failure**

### *Hazard Description*

Communications infrastructures are particularly vulnerable to both natural and manmade hazards. While a communications failure would most likely be a secondary hazard of one of the other hazards identified in this plan, a communications failure could be a solo incident itself. A lack of communication with outside sources could lead to public panic, poor emergency response capabilities, and other domino hazards. These events pose a significant threat to many jurisdictions.

### *Hazard Profile*

In case of any failure of a communications infrastructure, general communication difficulties would be exacerbated for both emergency responders and for the public. The reliance on wireless communications, particularly for the public safety sector, increases the vulnerability of White County's emergency response agencies to a communications failure.

### *Assets Exposed to Hazard*

All assets and critical facilities within White County could potentially be impacted by a transportation incident.

### *Estimated Potential Losses*

Estimated potential losses cannot be anticipated with this event due to the vast number of differing scenarios regarding communications failure.

### *Land Use and Development Trends*

White County currently has no land use trends related to communications failures.

### *Multi-Jurisdictional Considerations*

White County as well as all municipalities could potentially be impacted by a communications failure. However, the City of Cleveland is particularly vulnerable due to population density and higher reliability on technological communications.

### *Hazard Summary*

The White County HMPC has determined that communications failures pose a high risk to their jurisdictions due to the unpredictable nature of the incident. As a result, the White County HMPC has developed mitigation strategies and actions with communications failures in mind.

**CHAPTER FOUR**  
-  
**HAZARD MITIGATION STRATEGIES**

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Summary of Updates to Chapter Four

The following table provides a description of each section of this chapter, and a summary of the changes that have been made to the White County Hazard Mitigation Plan 2016.

<b>Chapter 4 Section</b>	<b>Updates</b>
Goals and Objectives	<ul style="list-style-type: none"><li>• Updated goals to match the needs of White County and its municipalities</li></ul>
Identification and Analysis of Mitigation Techniques	<ul style="list-style-type: none"><li>• The beginning of this section includes new information regarding rating the mitigation strategies based upon the EMAP Standard Hazard Mitigation Section</li><li>• The Mitigation Strategies have been updated, reorganized by objective, and new strategies have been added</li><li>• A chart of completed Mitigation Strategies has been added</li></ul>
Multi-Jurisdictional Considerations	<ul style="list-style-type: none"><li>• Revised</li><li>• Multi-Jurisdictional considerations listed for each identified hazard</li></ul>

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Goals and Objectives

Requirement §201.6(c)(3)

Requirement §201.6(c)(3)(i)

It is important that State and local government, public-private partnerships, and the average citizen can see the results of these mitigation efforts, therefore, the goals and strategies need to be achievable. The mitigation goals and objectives form the basis for the development of specific mitigation actions. County and municipal officials should consider the listed goals before making community policies, public investment programs, economic development programs, or community development decisions for their communities. The goals of White County have changed slightly in the last five years (since 2016) due to specific threat events, such as the snow and ice storms, Hurricane Irma in 2017, and Tropical Storm Zeta. The Ice Storms led to changes at the State and local levels regarding the importance of winter weather preparedness, both for the public and the response ability of local jurisdictions, including White County. Because of the recent impacts of these hazards and the devastation that occurred, these types of events have taken a greater priority, particularly in the increased priority of mitigation strategies directly related to these events and the development of new mitigation strategies related to these hazards.

Each jurisdiction covered by the White County Hazard Mitigation plan update – White County and the Cities of Cleveland and Helen – has limited ability to fully implement the mitigation actions described in this plan. These jurisdictions are severely hampered by their small population and tax base when attempting to raise enough revenue to pursue many of these actions. All jurisdictions lack the needed financial strength and staffing to implement all the actions described in this plan. Many of the actions will be pursued through grant programs and by partnering with public and private organizations who can supplement the needed resources to accomplish the goals outlined in this plan. For actions where grant funding or partnerships are not available, White County or municipality revenue streams may be supplemented through Special Purpose Local Option Sales Tax (SPLOST) funds, which are voted on by the electorate.

Since the adoption of the 2016 White County Hazard Mitigation Plan, White County has implemented many mitigation strategies to protect their community. White County has promoted hazard awareness information on the county website, ran a multi-jurisdictional exercise (including state and federal response partners), created a debris management plan, and created a list of approved debris removal contractors. Additionally, White County purchased generators for six fire stations, and portable/mobile generators to provide emergency power at various critical infrastructure locations. Finally, White County purchases all-wheel drive vehicles for all county departments.

- GOAL 1      Maximize the use of all resources by promoting intergovernmental coordination and partnerships in the public and private sectors
  
- GOAL 2      Harden communities against the impacts of disasters through the development of new mitigation strategies and strict enforcement of current regulations that have proven effective
  
- GOAL 3      Reduce and, where possible, eliminate repetitive damage, loss of life and property from disasters

# White County Multi-Jurisdictional Hazard Mitigation Plan

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GOAL 4      Bring greater awareness throughout the community about potential hazards and the need for community preparedness

These objectives state a more specific outcome that White County strives to accomplish over the next five years. Action steps are the specific steps necessary to achieve these objectives. Objectives are not listed in order of importance.

- OBJECTIVE 1      Reduce damage to property and loss of life from flooding
- OBJECTIVE 2      Reduce damage to property and loss of life from high wind events
- OBJECTIVE 3      Provide advanced severe weather warning and notification
- OBJECTIVE 4      Provide educational awareness to citizens regarding the dangers of natural hazards
- OBJECTIVE 5      Increase the ability for Local Government and citizens to respond to natural and manmade hazards
- OBJECTIVE 6      Maintain continuity of critical operations during and after hazard events
- OBJECTIVE 7      Increase knowledge and preparedness of man-made hazard events

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Identification and Analysis of Mitigation Techniques

Requirement §201.6(c)(3)(iv)

Requirement §201.6(c)(3)(iii)

In updating White County's mitigation strategy, a wide range of activities were considered to help achieve the mitigation goals and objectives. This includes the following activities as by the Emergency Management Accreditation Program (EMAP):

- 1) The use of applicable building construction standards.
- 2) Hazard avoidance through appropriate land-use practices.
- 3) Relocation, retrofitting, or removal of structures at risk.
- 4) Removal or elimination of the hazard.
- 5) Reduction or limitation of the amount or size of the hazard.
- 6) Segregation of the hazard from that which is to be protected.
- 7) Modification of the basic characteristics of the hazard.
- 8) Control of the rate of release of the hazard.
- 9) Provision of protective systems or equipment for both cyber and physical risks.
- 10) Establishment of hazard warning and communication procedures; and
- 11) Redundancy or duplication of essential personnel, critical systems, equipment, and information materials.

Part of the prioritization includes a general assessment according to the STAPLEE criteria, which stands for Social, Technical, Administrative, Political, Legal, Economic and Environmental. This process led to three designated priorities: High, Medium, and Low. Most items that require grant funding must undergo a full Benefit Cost Analysis to determine the action's actual cost effectiveness prior to funding. This process will be completed as part of the grant opportunity application process. All estimations listed in the plan are just that – estimations. Actual costs associated with the project will be determined prior to implementation and will be subjected to a full Benefit-Cost Analysis to ensure the most appropriate use of local tax monies.

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Identification and Analysis of Mitigation Techniques

Strategy Priority	Priority Description	Strategies Within This Priority
<b>LOW</b>	<b>Low priority strategies are those that will have less direct impact on mitigating hazards, are in the early stages of strategy development, or score poorly on a preliminary cost-benefit analysis.</b>	<b>3.a; 5.e, 6.a</b>
<b>MEDIUM</b>	<b>Medium priority strategies are those that will have a direct impact on mitigating hazards but will not have as large of an anticipated impact or may be focused on hazards that are not as potentially impactful or prevalent. These maybe in the earlier stages of development or score mediocre on a preliminary cost-benefit analysis.</b>	<b>1.a; 1.b; 1.c; 1.d; 1.e; 2.a; 2.b; 3.h; 3.j; 4.a; 4.b; 4.c; 4.d; 4.e; 4.f; 5.a; 5.b; 5.c; 5.f; 5.g; 5.h; 5.i; 5.j; 5.k; 5.o; 5.p; 6.a; 6.d; 6.e; 6.g; 6.h; 6.j; 6.k; 6.l; 7.a; 7.b; 7.c; 7.d</b>
<b>HIGH</b>	<b>High priority strategies are those that will have a direct, large impact on mitigation hazards. These strategies are often-times well established needs and have a score high on the preliminary cost-benefit analysis.</b>	<b>3.b; 3.c; 3.d; 3.e; 3.f; 3.g; 3.i; 3.k; 3.l; 5.d; 5.l; 5.m; 5.n; 6.b; 6.c; 6.f; 6.i; 7.e; 7.f</b>

The lead agency listed in the Mitigation Strategy charts will be responsible for the jurisdictional administration and implementation of the mitigation strategy prioritization. Prioritization was determined based on many factors. These include the likelihood of the event, the potential impact of the event, the current readiness posture of White County for the event, the all-hazard impact of the mitigation strategy, and a cost-benefit analysis for the action. For example, mitigation actions addressing high-likelihood, high-impact events with low cost would rate higher than low-likelihood, high-impact events with high cost.

Many of the mitigation strategies identified in this and previous plans have had little to no progress towards completion. This is due to a lack of funding associated with the project, grant opportunities to complete the project, and personnel to dedicate to the project and/or project management.



# White County Multi-Jurisdictional Hazard Mitigation Plan

## Identification and Analysis of Mitigation Techniques

All mitigation strategies considered by the White County Hazard Mitigation Plan Update Committee can be classified under one of the following six (6) broad categories of mitigation techniques:

### *Prevention*

#### Requirement §201.6(c)(3)(ii)

Preventative activities are intended to keep hazard problems from getting worse and are typically administered through government programs or regulatory actions that influence the way land is developed and buildings are built. They are particularly effective in reducing a community's future vulnerability, especially in areas where development has not occurred, or capital improvements have not been substantial. Examples of preventative activities in this updated plan are listed in the following table:

<b>Natural Hazards</b>	<b>Mitigation Strategies</b>
<b>Drought</b>	1.b
<b>Flood</b>	1.a; 1.b; 1.c; 1.d; 1.e
<b>Thunderstorms</b>	1.a; 1.b; 1.c; 1.d; 1.e
<b>Tornadoes</b>	
<b>Tropical Cyclone</b>	1.a; 1.b; 1.c; 1.d; 1.e
<b>Wildfire</b>	1.a; 1.b
<b>Winter Storms</b>	1.a
<b>Technological Hazards</b>	<b>Mitigation Strategies</b>
<b>Communications Failure</b>	
<b>Dam Failure</b>	
<b>Hazardous Materials</b>	
<b>Terrorism</b>	
<b>Transportation</b>	

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Identification and Analysis of Mitigation Techniques

### *Property Protection*

Property protection measures involve the modification of existing buildings and structures to help them better withstand the forces of a hazard or involve the removal of the structures from hazardous locations. Examples of property protection in this updated plan are listed in the following table:

<b>Natural Hazards</b>	<b>Mitigation Strategies</b>
Drought	
Flood	6.i
Thunderstorms	2.a; 6.c; 6.d; 6.e; 6.f; 6.g; 6.h; 6.i
Tornadoes	2.a; 6.c; 6.d; 6.e; 6.f; 6.g; 6.h; 6.i
Tropical Cyclone	2.a; 6.c; 6.d; 6.e; 6.f; 6.g; 6.h; 6.i
Wildfire	6.i
Winter Storms	2.a; 6.c; 6.d; 6.i
<b>Technological Hazards</b>	<b>Mitigation Strategies</b>
Communications Failure	
Dam Failure	
Hazardous Materials	
Terrorism	
Transportation	

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Identification and Analysis of Mitigation Techniques

### *Natural Resource Protection*

Natural resource protection activities reduce the impact of natural hazards by preserving or restoring natural areas (ex: floodplains, wetlands, steep slopes, sand dunes) and their protective functions. Parks, recreation, or conservation agencies and organizations often implement these protective measures. Examples of natural resource protection in this updated plan are listed in the following table:

<b>Natural Hazards</b>	<b>Mitigation Strategies</b>
Drought	
Flood	
Thunderstorms	
Tornadoes	
Tropical Cyclone	
Wildfire	
Winter Storms	
<b>Technological Hazards</b>	<b>Mitigation Strategies</b>
Communications Failure	
Dam Failure	
Hazardous Materials	
Terrorism	
Transportation	

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Identification and Analysis of Mitigation Techniques

### *Structural Projects*

Structural mitigation projects are intended to lessen the impact of a hazard by modifying the environmental natural progression of the hazard event through construction. They are usually designed by engineers and managed or maintained by public works staff. Examples of structural projects in this updated plan are listed in the following table:

<b>Natural Hazards</b>	<b>Mitigation Strategies</b>
Drought	
Flood	
Thunderstorms	
Tornadoes	
Tropical Cyclone	
Wildfire	
Winter Storms	
<b>Technological Hazards</b>	<b>Mitigation Strategies</b>
Communications Failure	
Dam Failure	
Hazardous Materials	
Terrorism	
Transportation	

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Identification and Analysis of Mitigation Techniques

### *Emergency Services*

Although not typically considered a “mitigation” technique, emergency service measures do minimize the impact of a hazard event on people and property. These commonly are actions taken immediately prior to, during, or in response to a hazard event. Examples of emergency services in this updated plan are listed in the following table:

<b>Natural Hazards</b>	<b>Mitigation Strategies</b>
<b>Drought</b>	5.a; 5.h; 5.n
<b>Flood</b>	3.d; 3.e; 3.f; 3.g; 3.j; 3.k; 3.l; 3.m; 5.a; 5.b; 5.c; 5.d; 5.f; 5.g; 5.h; 5.i; 5.j; 5.k; 5.l; 5.m; 5.n; 5.o; 5.r; 5.s; 5.t; 6.a; 6.j
<b>Thunderstorms</b>	3.a; 3.d; 3.e; 3.f; 3.g; 3.h; 3.i; 3.j; 3.k; 3.l; 3.m; 5.a; 5.b; 5.c; 5.d; 5.f; 5.g; 5.h; 5.i; 5.j; 5.k; 5.l; 5.m; 5.n; 5.p; 5.r; 5.s; 5.t; 6.a; 6.b; 6.j
<b>Tornadoes</b>	3.a; 3.b; 3.c; 3.d; 3.e; 3.f; 3.g; 3.h; 3.i; 3.j; 3.k; 3.l; 3.m; 5.a; 5.b; 5.c; 5.d; 5.f; 5.g; 5.h; 5.i; 5.j; 5.k; 5.m; 5.n; 5.o; 5.p; 5.r; 5.s; 5.t; 5.u; 6.a; 6.b
<b>Tropical Cyclone</b>	3.a; 3.b; 3.c; 3.d; 3.e; 3.f; 3.g; 3.h; 3.i; 3.j; 3.k; 3.l; 3.m; 5.a; 5.b; 5.c; 5.d; 5.f; 5.g; 5.h; 5.i; 5.j; 5.k; 5.l; 5.m; 5.n; 5.o; 5.p; 5.r; 5.s; 5.t; 5.u; 6.a; 6.b; 6.j
<b>Wildfire</b>	5.a; 5.d; 5.f; 5.g; 5.h; 5.i; 5.j; 5.k; 5.m; 5.n; 5.o; 5.r; 6.a
<b>Winter Storms</b>	3.a; 3.d; 3.e; 3.f; 3.g; 3.h; 3.i; 3.j; 3.k; 3.l; 3.m; 5.a; 5.b; 5.c; 5.d; 5.f; 5.g; 5.h; 5.i; 5.j; 5.k; 5.m; 5.n; 5.p; 5.r; 5.s; 5.t; 5.u; 6.a; 6.b
<b>Technological Hazards</b>	<b>Mitigation Strategies</b>
<b>Communications Failure</b>	
<b>Dam Failure</b>	
<b>Hazardous Materials</b>	
<b>Terrorism</b>	
<b>Transportation</b>	

# White County Multi-Jurisdictional Hazard Mitigation Plan

## Identification and Analysis of Mitigation Techniques

### *Public Education and Awareness*

Public education and awareness activities are used to advise residents, elected officials, business owners, potential property buyers, and visitors about hazards, hazardous areas, and mitigation techniques that they can use to protect themselves and their property. Examples of public education and awareness strategies in this updated plan are listed in the following table:

<b>Natural Hazards</b>	<b>Mitigation Strategies</b>
<b>Drought</b>	4.a; 4.b; 4.c; 4.d
<b>Flood</b>	3.n; 4.a; 4.b; 4.c; 4.d; 4.e; 4.f; 4.g; 5.e
<b>Thunderstorms</b>	3.n; 4.a; 4.b; 4.c; 4.d; 4.e; 4.f; 4.g; 5.e; 5.q
<b>Tornadoes</b>	3.n; 4.a; 4.b; 4.c; 4.d; 4.e; 4.f; 4.g; 5.e; 5.q
<b>Tropical Cyclone</b>	3.n; 4.a; 4.b; 4.c; 4.d; 4.e; 4.f; 4.g; 5.e; 5.q
<b>Wildfire</b>	4.a; 4.d; 5.e
<b>Winter Storms</b>	3.n; 4.a; 4.b; 4.c; 4.d; 4.e; 4.f; 4.g; 5.e; 5.q
<b>Technological Hazards</b>	<b>Mitigation Strategies</b>
<b>Communications Failure</b>	
<b>Dam Failure</b>	
<b>Hazardous Materials</b>	
<b>Terrorism</b>	
<b>Transportation</b>	

### *Overall*

<b>Mitigation Technique</b>	<b>Percentage</b>
<b>Prevention</b>	8.6%
<b>Property Protection</b>	13.8%
<b>Natural Resource Protection</b>	0.0%
<b>Structural Projects</b>	0.0%
<b>Emergency Services</b>	60.4%
<b>Public Education and Awareness</b>	17.2%

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# White County Multi-Jurisdictional Hazard Mitigation Plan

The following Mitigation Charts meet:

Requirement §201.6(c)(3)(ii)

Requirement §201.6(d)(3)

MITIGATION MEASURES – NATURAL HAZARDS																
STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ <i>JURISDICTION</i>	FLOOD	WINTER	THUNDERSTORM	TORNADO	DROUGHT	WILDFIRE	TROPICAL CYCLONE	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (In Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE	
<b>OBJECTIVE ONE: Reduce Damage to Property and Loss of Life from Flooding</b>																
1.a	Maintain & enforce building codes that ensure protection against natural hazards.	BUILDING INSPECTIONS <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$3K Ann	12	On-Going	MED	2016 Plan	
1.b	Maintain & enforce Mountain Protection Act.	COMMUNITY PLANNING <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$3K Ann	12	On-Going	MED	NEW	
1.c	Maintain & enforce Erosion & Sediment Control Act.	Georgia DNR/EPD <i>White Co &amp; Municipalities</i>	X		X		X	X	X	State Budget	Local Staff	12	On-Going	MED	NEW	
1.d	Maintain NFIP Compliance.	COMMUNITY PLANNING <i>White Co &amp; Municipalities</i>	X		X				X	Local Budget	Local Staff	12	On-Going	MED	2016 Plan	
1.e	Maintain flood plain mapping for all CAT 1 Dams.	GIS-Mapping <i>White Co &amp; Municipalities</i>	X		X				X	Local Budget	Local Staff	12	On-Going	MED	2016 Plan	
<b>OBJECTIVE TWO: Reduce Damage to Property and Loss of Life from High Wind Events</b>																
2.a	Provide adequate shelters for citizens, especially vulnerable populations.	EMA & Red Cross <i>White Co &amp; Municipalities</i>		X	X	X			X	Local Budget, public & private grants.	\$8K	24	On-Going	MED	NEW	
2.b	Evaluate additional regulations for RV Parks & Mobile Home lots requiring tie downs and other safety measures.	COMMUNITY PLANNING <i>White Co &amp; Municipalities</i>		X	X	X			X	Local Budget	Local Staff	12	On-Going	MED	2016 Plan	



# White County Multi-Jurisdictional Hazard Mitigation Plan

## MITIGATION MEASURES – NATURAL HAZARDS

STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ <i>JURISDICTION</i>	FLOOD	WINTER	THUNDERSTORM	TORNADO	DROUGHT	WILDFIRE	TROPICAL CYCLONE	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (In Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE
<b>OBJECTIVE THREE: Provide Advanced Severe Weather Warning &amp; Notification</b>															
3.a	Purchase & Install Two (2) Weather Monitoring Stations	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X			X	Local Budget, public & private grants.	\$10K	24	NEW	LOW	NEW
3.b	Re-evaluate location plan for outdoor warning sirens, update sites and priorities.	EMA <i>White Co &amp; Municipalities</i>				X			X	Local Budget	Local Staff	12	NEW	HIGH	NEW
3.c	Implement recommendations from study in 3. b.	EMA <i>White Co &amp; Municipalities</i>				X			X	Local Budget, public & private grants.	\$28K Per Site	72	On-Going	HIGH	2016 Plan
3.d	Study outdoor warning systems for river flooding within tourist center of the City of Helen.	EMA <i>City of Helen</i>	X		X	X			X	Local Budget, public & private grants.	\$75K	72	NEW	HIGH	NEW
3.e	Purchase direct connects and NOAA weather radios for school system, and Truett McConnell University.	WC Schools & TMU <i>White Co &amp; City of Cleveland</i>		X	X	X		X	X	Local Budget, public & private grants.	\$3K Per Site	36	NEW	HIGH	NEW
3.f	Purchase direct connects and NOAA weather radios for local government facilities/agencies.	EMA <i>White Co &amp; Municipalities</i>		X	X	X		X	X	Local Budget, public & private grants.	\$3K Per Site	36	NEW	HIGH	NEW
3.g	Purchase NOAA weather radios for healthcare, assisted living, daycare, and recreation facilities.	EMA & Local Partners <i>White Co &amp; Municipalities</i>		X	X	X		X	X	Local Budget, public & private grants.	\$10K	36	NEW	HIGH	NEW
3.h	Purchase & Distribute NOAA Weather radios to low-income family & elderly populations.	EMA <i>White Co &amp; Municipalities</i>		X	X	X		X	X	Local Budget, public & private grants.	\$4K	18	On-Going	MED	2016 Plan
3.i	Purchase voice-over outdoor warning & alert system for Yonah Preserve.	White Co Parks <i>White Co &amp; Municipalities</i>			X	X			X	Local Budget, public & private grants.	\$28K	12	NEW	HIGH	NEW

# White County Multi-Jurisdictional Hazard Mitigation Plan

MITIGATION MEASURES – NATURAL HAZARDS															
STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ <i>JURISDICTION</i>	FLOOD	WINTER	THUNDERSTORM	TORNADO	DROUGHT	WILDFIRE	TROPICAL CYCLONE	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (In Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE
<b>OBJECTIVE THREE CONTINUED: Provide Advanced Severe Weather Warning &amp; Notification</b>															
3.j	Perform annual update and maintain emergency mass notification system.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget	\$8K	12	On-Going	MED	2016 Plan
3.k	Encourage local churches to have NOAA weather radios in their facilities.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget	Local Staff	12	NEW	HIGH	NEW
3.l	Encourage local businesses to have NOAA weather radios in their facilities.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget	Local Staff	12	NEW	HIGH	NEW
<b>OBJECTIVE FOUR: Provide Educational Awareness to Citizens Regarding the Dangers of Natural Hazards</b>															
4.a	Provide school system and Truett McConnell University with All Hazard awareness programs.	EMA, WC Schools & TMU <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget, public & private grants.	\$10K	36	On-Going	MED	2016 Plan
4.b	Publish articles about weather awareness, drought, and water restrictions in local media.	EMA & Water Authority <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget, public & private grants.	\$10K	36	On-Going	MED	2016 Plan
4.c	Publish articles about weather awareness using social media.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Local Staff	12	NEW	MED	NEW
4.d	Designate and provide section in local libraries for preparedness and severe weather information.	WC Library System <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Local Staff	12	NEW	MED	NEW
4.e	Public Awareness Seminars and public appearances regarding what to do before, during and after severe weather.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Local Staff	12	On-Going	MED	2016 Plan

# White County Multi-Jurisdictional Hazard Mitigation Plan

MITIGATION MEASURES – NATURAL HAZARDS																
STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ <i>JURISDICTION</i>	FLOOD	WINTER	THUNDERSTORM	TORNADO	DROUGHT	WILDFIRE	TROPICAL CYCLONE	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (In Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE	
<b>OBJECTIVE FOUR CONTINUED: Provide Educational Awareness Regarding the Dangers of Natural Hazards</b>																
4.f	Public service announcements in all media outlets and forms to encourage sign-up for mass notification system.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	\$1K	12	On-Going	MED	2016 Plan	
<b>OBJECTIVE FIVE: Increase the Ability for Local Government &amp; Citizens to Respond to Natural &amp; Manmade Hazards</b>																
5.a	Purchase & maintain EOC equipment and software.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	\$5K	12	On-Going	MED	NEW	
5.b	Purchase & maintain equipment for field disaster units such as damage assessments, and debris management.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	\$5K	12	On-Going	MED	NEW	
5.c	Train emergency response teams such as damage assessment teams, debris, chainsaw, and CERT programs.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	\$5K	12	On-Going	MED	2016 Plan	
5.d	Purchase Mobile Incident Command Vehicle	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$300K	36	MCV Options Researched	HIGH	NEW	
5.e	Encourage citizens on oxygen to bring concentrator to open shelters.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget	Staff Time	12	NEW	LOW	NEW	
5.f	Coordinate with Truett McConnell University regarding an evacuation plan.	EMA & TMU <i>White Co &amp; City of Cleveland</i>	X	X	X	X		X	X	Local Budget	Staff Time	12	NEW	MED	NEW	
5.g	Purchase & equip AWD or 4WD capabilities within local government.	White County Board of Commissioners & City Administration <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$45K EA	36	On-Going	MED	NEW	

# White County Multi-Jurisdictional Hazard Mitigation Plan

MITIGATION MEASURES – NATURAL HAZARDS																
STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ <i>JURISDICTION</i>	FLOOD	WINTER	THUNDERSTORM	TORNADO	DROUGHT	WILDFIRE	TROPICAL CYCLONE	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (In Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE	
<b>OBJECTIVE FIVE CONTINUED: Increase the Ability of Local Govt &amp; Citizens to Respond to Natural &amp; Manmade Hazard</b>																
5.h	Continue coordination efforts with state and federal partners.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Staff Time	12	On-Going	MED	NEW	
5.i	Update emergency plans, guidelines, procedures, and policies.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Local Staff	12	On-Going	MED	2016 Plan	
5.j	Maintain debris removal contracts and resources.	SOLID WASTE <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget	Local Staff	12	On-Going	MED	2016 Plan	
5.k	Maintain and purchase additional ATV/UTV resources.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$20K EA	36	On-Going	MED	NEW	
5.l	Purchase flat bottom boat for water rescue and flash flooding events.	EMA <i>White Co &amp; Municipalities</i>	X		X				X	Local Budget, public & private grants.	\$10K	24	NEW	HIGH	NEW	
5.m	Update mutual/automatic aid agreements with local and area agencies.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Local Staff	12	On-Going	HIGH	2016 Plan	
5.n	Update CAD/RMS Systems	9-1-1 Center <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget, public & private grants.	\$270 K	36	NEW	HIGH	NEW	
5.o	Coordinate with state and federal partners with efforts of SAR and weather events.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Local Staff	18	On-Going	MED	NEW	

# White County Multi-Jurisdictional Hazard Mitigation Plan

MITIGATION MEASURES – NATURAL HAZARDS															
STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ JURISDICTION	FLOOD	WINTER	THUNDERSTORM	TORNADO	DROUGHT	WILDFIRE	TROPICAL CYCLONE	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (In Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE
<b>OBJECTIVE FIVE CONTINUED: Increase the Ability of Local Govt &amp; Citizens to Respond to Natural &amp; Manmade Hazard</b>															
5.p	Encourage citizens to register and sign up for the mass notification system.	PUBLIC AFFAIRS <i>White Co &amp; Municipalities</i>		X	X	X			X	Local Budget	Staff Time	12	On-Going	MED	NEW
5.q	Maintain and update radio system infrastructure for current and future needs assessment.	911-COMMUNICATIONS <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget, public & private grants.	\$60K EA YR	12	On-Going	MED	NEW
<b>OBJECTIVE SIX: Maintain Continuity of Critical Operations During &amp; After Hazard Events</b>															
6.a	Purchase satellite phones for each public safety agency.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$25K	36	NEW	LOW	NEW
6.b	Maintain a list of residents/citizens dependent upon electricity for life sustaining equipment and medications.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X			X	Local Budget, public & private grants.	\$6K	24	NEW	HIGH	NEW
6.c	Purchase generators for critical facilities.	EMA <i>White Co &amp; Municipalities</i>		X	X	X			X	Local Budget, public & private grants.	\$5M	60	On-Going	HIGH	2016 Plan
6.d	Purchase generators for each resident hall at Truett McConnell University.	TMU <i>White Co &amp; Municipalities</i>		X	X	X			X	Public & private grants.	\$250 K	72	NEW	MED	NEW
6.e	Purchase and install automatic transfer switches at Public Safety Facilities currently without system.	EMA <i>White Co &amp; Municipalities</i>		X	X	X			X	Local Budget, public & private grants.	\$150 K	36	NEW	MED	NEW
6.f	Evaluate & Enhance Security at Critical Facilities	LAW ENFORCMENT <i>White Co &amp; Municipalities</i>								Local Budget, public & private grants.	\$300 K	72	On-Going	HIGH	2016 Plan

# White County Multi-Jurisdictional Hazard Mitigation Plan

MITIGATION MEASURES – NATURAL HAZARDS															
STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ JURISDICTION	FLOOD	WINTER	THUNDERSTORM	TORNADO	DROUGHT	WILDFIRE	TROPICAL CYCLONE	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (In Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE
<b>OBJECTIVE SIX CONTINUED: Maintain Continuity of Critical Operations During &amp; After Hazard Events</b>															
6.g	Evaluate and designate safe shelter areas for temporary use.	EMA <i>White Co &amp; Municipalities</i>	X	X		X		X	X	Local Budget	Staff Time	24	On-Going	MED	2016 Plan
6.h	Expand roadway and debris maintenance capabilities.	PUBLIC WORKS <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$600K	72	On-Going	MED	2016 Plan
6.i	Create and maintain a resource list for White County and municipalities using the IRIS FEMA program.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X	X	X	X	Local Budget	Staff Time	12	NEW	HIGH	NEW
6.j	Purchase portable outdoor lighting for countywide operations.	EMA <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$30K	24	NEW	MED	NEW
6.k	Purchase skid steer and grapple for debris removal operations.	Public Works <i>White Co &amp; Municipalities</i>		X	X	X			X	Local Budget, public & private grants.	\$35K	36	NEW	MED	NEW
6.l	Purchase four (4) portable electronic signs.	Public Works <i>White Co &amp; Municipalities</i>	X	X	X	X		X	X	Local Budget, public & private grants.	\$120K	36	NEW	MED	NEW

# White County Multi-Jurisdictional Hazard Mitigation Plan

MITIGATION MEASURES – MANMADE HAZARDS													
STRATEGY NUMBER	MITIGATION ACTION	LEAD AGENCY/ JURISDICTION	COMMUNICATIONS	HAZARDOUS MATERIALS	TERRORISM	DAM FAILURE	TRANSPORTATION	FUNDING SOURCE	ESTIMATED COST	TIMEFRAME (in Months)	PROGRESS/STATUS	PRIORITY (Low, Medium, High)	SOURCE
<b>OBJECTIVE SEVEN: Increase Knowledge and Preparedness of Manmade Hazard Events</b>													
7.a	Perform preplanning walk thru of Tier 2 facilities with potentially involved agencies.	FIRE SERVICES <i>White Co &amp; Municipalities</i>		X	X		X	Local Budget	Staff Time	18	On-Going	MED	NEW
7.b	Create and maintain Hazardous Materials Response Plan.	FIRE SERVICES <i>White Co &amp; Municipalities</i>		X	X			Local Budget	Staff Time	12	On-Going	MED	NEW
7.c	Maintain EAP on all Category 1 Dams, and GIS Flood Plain for Category 2 Dams.	EMA <i>White Co &amp; Municipalities</i>				X		Local Budget	Staff Time	24	NEW	MED	NEW
7.d	Conduct multi-jurisdictional mass casualty/active shooter/terrorism exercise.	EMA <i>White Co &amp; Municipalities</i>		X	X		X	Local Budget, public & private grants.	\$5K	36	On-Going	MED	NEW
7.e	Assess vulnerability to cyberattacks and mitigate IT system's, accordingly, produce written emergency plan.	IT Services <i>White Co &amp; Municipalities</i>	X		X			Local Budget, public & private grants.	\$20K	36	NEW	HIGH	NEW
7.f	GIS mapping of all defined critical infrastructure in White County.	GIS <i>White Co &amp; Municipalities</i>	X	X	X	X	X	Local Budget, public & private grants.	\$15K	36	On-Going	HIGH	NEW

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## *Completed Strategies*

Previous Strategy #	Strategy Description	Status
	Emergency Response Teams	COMPLETE
	Flood Plain Mapping for CAT 1 Dams	COMPLETE
	Urban Interface Education	COMPLETE
	Evaluate & Designate Safe Shelter Options	COMPLETE
	Mass Notification System	COMPLETE

## *Deleted Strategies*

Previous Strategy #	Strategy Description	Reason for Deletion
	Community Rating System	No need to define as strategy.
	Recommend additional signage for HazMat facilities listing chemicals on site/along gas line routes.	Handled by Federal and State regulations.
	Upgrade or expand water storage capabilities.	Cost prohibitive; efforts focused on other strategies.



## Multi-Jurisdictional Considerations

### *Thunderstorms*

Thunderstorm events have occurred across all areas of White County. Property damage numbers would be most impactful due to greater population density than many other Georgia jurisdictions. Thunderstorms have the potential to impact all areas of White County.

### *Winter Storms*

All portions of White County could potentially be impacted by a winter storm, including freezing rain, sleet, and snow. Therefore, all mitigation actions identified regarding winter storms should be pursued on a countywide basis.

### *Flooding*

During a large-scale flood event, many portions of White County would potentially be impacted by flooding. However, the area's most prone to flooding have historically been those areas located within the 100-year floodplain. All White County and its municipalities could potentially be impacted.

### *Tornado*

All portions of White County could potentially be impacted by a tornado due to the indiscriminate nature of tornadic events. Therefore, all mitigation actions identified regarding tornadoes should be pursued on a countywide basis.

### *Drought*

All portions of White County could potentially be impacted by a drought. Therefore, all mitigation actions identified regarding drought should be pursued on a countywide basis.

### *Wildfire*

All portions of White County could potentially be impacted by a wildfire due to the large amount of Wildland-Urban Interface, but the less developed areas of the county are more vulnerable. Therefore, all mitigation actions identified regarding wildfires should be pursued on a countywide basis within White County.

## Multi-Jurisdictional Considerations

### *Hazardous Materials Incidents*

All White County, including all municipalities, are vulnerable to both fixed facility and transportation-related hazardous materials releases.

### *Dam Failure*

During a dam failure event, many portions of White County would potentially be impacted by flooding. However, the area's most prone to flooding have historically been those areas located within the 100-year floodplain and downstream from dams.

### *Transportation Incidents*

White County as well as all municipalities could potentially be impacted by a transportation incident. However, areas along US Highway 129, State Highway 75N and State Highway 115 are the greatest at risk. This includes the municipalities of Cleveland and Helen.

### *Terrorism*

All White County, including all municipalities, are vulnerable to potential acts of terrorism. However, critical facilities and their surrounding areas are at the greatest risk.

### *Communications Failure*

All White County, including all municipalities, are vulnerable to a communications failure.

**CHAPTER FIVE**  
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**MAINTENANCE AND  
IMPLEMENTATION**

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Maintenance

### Requirement §201.6(c)(4)(iii)

To adhere to best practices, state and federal guidelines, and lessons learned, the White County Hazard Mitigation Plan Update Committee has developed a method to ensure the regular review and update of the plan occurs. Plan maintenance protocols identified during the 2016 White County Hazard Mitigation Plan were followed, to the best abilities of White County. This most importantly included an increased attempt for public participation and inclusion in the planning process. The White County Hazard Mitigation Plan Update Committee will reconvene annually to monitor and evaluate the progress of the mitigation strategies in the plan. White County's Emergency Management Director will be responsible for convening this meeting. The Committee will discuss the following questions annually:

- Do the goals address current and expected hazards and conditions?
- Are the goals and objectives still relevant to the County?
- Has the nature or magnitude of risks changed?
- Does the risk assessment portion of the Plan need to be updated or modified?
- Are the goals and objectives meeting changes in state and federal policy?
- Are the current resources appropriate for implementing the Plan?
- Are there local implementation problems, such as technical, political, legal, or coordination issues with other agencies?
- Have the outcomes occurred as expected?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?

The responsible parties for various mitigation strategies will provide a report during this annual meeting regarding the following:

- How well did the implementation processes work?
- Were any difficulties encountered during implementation?
- How successful was the coordination of efforts?
- Are there any suggestions for revision of any strategies?

White County's Emergency Management Director will send the minutes from this annual meeting to White County Board of Commissioners and City Councils of Cleveland and Helen for review. If there are any updates or modifications to the White County Hazard Mitigation Plan, the Emergency Management Director will forward the changes to the Georgia Emergency Management Agency's Hazard Mitigation Officer. All annual reviews of the White County Hazard Mitigation Plan will be open to the public. These meetings will be advertised both in the local newspapers, but also on signage in the publicly used facility hosting the meeting.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## **Plan Distribution**

This Plan will be distributed, but not limited, to the following departments and organizations within White County:

White County Board of Commissioner's – on file in Clerk's Office  
White County Office of Public Safety – Emergency Management and Fire Services Divisions  
White County Sheriff's Office  
White County Department of Public Works  
White County Department of Community Development  
White County Board of Education  
City of Cleveland  
City of Helen

A printed copy of the approved plan will be available for viewing at the White County Emergency Management Agency located at 1241 Helen Hwy Suite 100, Cleveland, GA 30528. A printed copy of the approved plan will also be available for viewing at the White County Public Library located at 10 Colonial Drive in Cleveland. The existence and location of these copies will be publicized in the County's local newspaper, the White County News.

All comments, questions, concerns, and opinions about the plan will be directed to, Director of the White County Emergency Management Agency for follow-up.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Implementation

### Requirement §201.6(c)(4)(ii)

Each jurisdiction participating in the White County Hazard Mitigation Plan is responsible for implementing specific mitigation actions as prescribed in this plan. In the Mitigation Strategies section, every proposed strategy is assigned to a specific local department or agency to assign responsibility and accountability and increase the likelihood of subsequent implementation.

In addition to the designation of a local lead department or agency, some strategies have secondary or assisting department or agencies listed as well. This allows for a sharing of responsibility and coordination of effort for some of the identified strategies that cross lines of departmental responsibility. The completion date has been assigned to assess whether identified mitigation strategies are being implemented in a timely fashion.

White County and its municipalities will seek outside funding sources to implement mitigation projects in both the pre-disaster and post-disaster environments. When applicable, potential funding sources have been identified and targeted for the proposed actions listed in the mitigation strategies. It will be the responsibility of each participating jurisdiction to determine additional implementation procedures beyond those listed within the White County Hazard Mitigation Plan.

This plan, as a joint effort between White 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 White 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. Aspects of this plan will be integrated into the White County Comprehensive Plan during the next planning cycle.

Identified hazards and mitigation strategies of the 2016 White 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. White County will integrate mitigation strategies identified in this plan into the White County Comprehensive Plan, Community Wildfire Protection Plan, and the Local Emergency Operations Plan Annexes. Strategies identified in the previous plan were applied to grant applications, building and zoning requirements, and development planning considerations for White County and all municipalities therein. Many of these strategies will be applied using previously identified policies and ordinances, including the NFIP compliance ordinances and water-use ordinances, which have now been applied countywide. 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 documents authorities available to the jurisdiction 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.

## White County Multi-Jurisdictional Hazard Mitigation Plan

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Regulatory Tools/Plans	Regulatory Type: Ordinance, Resolution, Codes, Plans, etc.	Local Authority	State Prohibited	Higher Authority
<b>Building Codes</b>	County/Municipal Code	Yes	No	No
<b>Capital Improvements Plan</b>	Report (SPLOST)	Yes	No	No
<b>Comprehensive Plan</b>	XXXX White County Joint Comprehensive Plan	Yes	No	No
<b>Economic Development Plan</b>	XXXX GMRC Comprehensive Economic Development Strategy	Yes	No	Yes
<b>Emergency Management Accreditation Program</b>		No	No	Yes
<b>Emergency Response Plan</b>	County Local Emergency Operations Plan (LEOP)	Yes	No	Yes
<b>Flood Management Plan</b>		Yes	No	No
<b>Historic Preservation</b>	White County Codes	Yes	No	No
<b>National Flood Insurance Program Participation</b>	White County Codes	Yes	No	Yes
<b>Continuity of Government/ Operations Plan</b>		No	No	No
<b>Post-Disaster Ordinance</b>	White County Codes	Yes	No	No
<b>Zoning Ordinances</b>	County and Municipal Codes	Yes	No	No

The City of Cleveland has several administrative and technical services to the community. City departments include City Clerk, Police Department, Water Department, Wastewater treatment plant, and water treatment plant.

The City of Helen has several administrative and technical services to the community. City departments include City Clerk, Water Department, and Wastewater treatment.

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 White County Hazard

# White County Multi-Jurisdictional Hazard Mitigation Plan

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Mitigation Planning Committee to be the most effective and appropriate method to implement local hazard mitigation actions currently.

## **Evaluation**

### Requirement §201.6(c)(4)(i)

Periodic revisions and updates of the White County Hazard Mitigation Plan may be required to ensure that the goals of this plan are kept current with federal, state, and local regulations. These revisions should also consider any potential changes in the hazard vulnerability and mitigation priorities of White County.

The White County Hazard Mitigation Plan Update Committee will meet annually to review the White County Hazard Mitigation Plan. During this annual review, mitigation strategies will be reviewed to evaluate the progress that has occurred for each identified mitigation strategy. The White County Hazard Mitigation Plan Update Committee will also meet following any disaster event to review the identified mitigation strategies for that hazard and determine if timelines should be adjusted or additional mitigation strategies should be identified and added to the plan. These steps will ensure that the White County Hazard Mitigation Plan is continuously updated to allow for changes in hazard vulnerabilities and identified mitigation strategies.

The White County Hazard Mitigation Plan Update Committee will complete all evaluations of the White County Hazard Mitigation Plan.



# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Peer Review

### State Requirement Element F1

To maintain standards of quality, improve performance, and provide credibility to the White County Hazard Mitigation Plan Update, representatives of local emergency management agencies bordering White County conducted a peer review of the plan. The peer review of this plan constitutes a form of self-regulation, accountability, and new insights offered by qualified professionals in neighboring communities, which face many of the same natural and man-made hazards.

White County Hazard Mitigation Plan Update was peer reviewed by:

(See Attached EMAIL)

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Lynn Smith	Date
Director	
Habersham County Emergency Management Agency	

(See Attached EMAIL)

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Casey Ramsey	Date
Director	
Hall County Emergency Management Agency	

(See Attached EMAIL)

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David Wimpy	Date
Director	
Lumpkin County Emergency Management Agency	

(See Attached EMAIL)

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David Dyer	Date
Director	
Union County Emergency Management Agency	

(See Attached EMAIL)

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Marty Roberts	Date
Director	
Towns County Emergency Management Agency	

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## EMAIL SENT FOR PEER REVIEW (EMAIL RECEIPTS IN APPENDIX E)

### David Murphy

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**From:** David Murphy  
**Sent:** Wednesday, April 21, 2021 2:01 PM  
**To:** Lorraine Morris; Union Co EMA David Dyer; Lynn R. Smith; Director Casey Ramsey; 911@townscountyga.com; Mark (Mark.Palen@dph.ga.gov) Palen (Mark.Palen@dph.ga.gov); Don Strength (donald.strength@gema.ga.gov) (donald.strength@gema.ga.gov); david.shanks@gema.ga.gov; Jonathan Jones (Jonathan.Jones@gema.ga.gov); Scott Justus; Laurie Burkett; beth@whitecountychamber.org; Kevin Benson (kbenson@cpa4schools.com); Riemann, Mike J.; Marc Turner (marc@thecwconline.org); Rick; Graffagnino, Jason; Alan Sykes; Charles Dewalt; Aaron Cosson(gm@skylakepoa.org)  
**Subject:** White County HMP Draft  
**Attachments:** WC Hazard Mitigation Plan Update\_2020\_Rev2021-4\_DRAFT.pdf

To our neighboring communities, agencies, and other interested parties:

White County, along with the City of Cleveland and the City of Helen, has completed a draft update to the White County Hazard Mitigation Plan over the past several months which is now being reviewed by GEMA. We would like to provide an opportunity for neighboring communities, agencies and other interested parties to be involved in our planning process. Therefore, we are requesting that you please review the draft update attached to this email and provide us with any feedback you may have within the next 15 days. Any help you can provide will be greatly appreciated. Please feel free to forward this information to other parties that may also have an interest in reviewing this update. If you have any questions or concerns, please contact White County Emergency Management by responding to this email or via the contact information below. Thank you in advance for your time and help!

David L. Murphy, Jr. GA-PCEM  
Director of Public Safety  
White County Government  
1241 Helen Hwy Ste 100  
Cleveland, GA 30528

706-865-9500

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Plan Update

### Requirement §201.6(c)(4)(i)

The Federal Disaster Mitigation Act of 2000 requires that the Hazard Mitigation Plan be updated at least once every five years. The White County Emergency Management Agency is the department responsible with ensuring this requirement is met. The White County Hazard Mitigation Plan Update Committee will be involved in this future process and will aid the White County Emergency Management Agency in ensuring that all jurisdictions provide input into the planning process. The public will be invited to participate in the planning process through public hearings to be held whenever major updates to this plan are needed and during annual review meetings. This plan will expire in the fourth quarter of 2026; therefore, the approval and adoption of the next plan update must be completed before that time.

In the fourth quarter of 2025, White County plans to begin the Hazard Mitigation Plan Update process for the fourth time. This planning process will include bi-monthly meetings to accomplish the identified goals of the White County Hazard Mitigation Plan Update. This process will be headed up by the White County Emergency Management Agency. The White County Hazard Mitigation Planning Committee will follow a similar process as was undertaken during this planning cycle to complete all FEMA and GEMA requirements for the Hazard Mitigation Plan Update. This process will be completed by the first quarter of 2026 to meet all identified planning deadlines.

# White County Multi-Jurisdictional Hazard Mitigation Plan

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## Conclusion

As a result of the hazard mitigation planning process, White County, and the Cities of Cleveland and Helen, as well as additional participating organizations have obtained a great deal of information and knowledge regarding White County's disaster history, natural and technological hazards, vulnerabilities, and potential strategies to lessen the impacts of the identified hazards.

One consistent theme identified by the White County Hazard Mitigation Planning Committee was the inability to consistently identify geographic locations that were more vulnerable to most hazards due to the widespread potential effects and random impact areas each hazard could have. This was exceedingly true for most natural hazards. Recognizing this challenge, the White County Hazard Mitigation Plan Update Committee determined it was best to identify many mitigation goals, objectives, and strategies that were both general and specific in nature. These strategies allow the White County Hazard Mitigation Plan Update Committee to adopt strategies that will have the greatest positive effect on the greatest amount of the population.

The White County Hazard Mitigation Planning Committee adopted strategies in all six of the major mitigation categories: Prevention, Property Protection, Natural Resource Protection, Structural Projects, Emergency Services, and Public Education and Awareness. Public Education/Awareness and Emergency Services comprised the greatest number (over 77%) of the mitigation strategies identified by White County.

**APPENDICES**

## APPENDIX A

<b>WHITE COUNTY CRITICAL FACILITY AND CRITICAL INFRASTRUCTURE INVENTORY of ASSETS</b>	<b>CRITICAL FACILITY TYPE</b>							<b>COMMUNITY ELEMENTS</b>				
<b>Name of Critical Structure or Building</b>	<b>Essential Facility</b>	<b>Critical Response Level**</b>	<b>Transportation System</b>	<b>Lifeline System</b>	<b>High Potential Loss</b>	<b>Haz Mat Facility</b>	<b>Important Facility</b>	<b>Vulnerable Population</b>	<b>Economic Assets</b>	<b>Special Consideration</b>	<b>Historic Consideration</b>	<b>Other</b>
<b>GOVERNMENT</b>												
Helen City Hall		1					Y					
Cleveland City Hall		1					Y					
White County Courthouse		3					Y					
White County Senior Center		3					Y	Y				
White County Public Works	Y	1	Y									
Cleveland Public Works	Y	1	Y									
Helen Public Works	Y	1	Y									
<b>PUBLIC SAFETY</b>												
Cleveland City Fire Station	Y	1										
Allen Mauney Safety Bldg.	Y	1										
White County Fire Station #2	Y	1										
White County Fire Station #3	Y	1										
White County Fire Station #4	Y	1										
White County Fire Station #5	Y	1										
White County Fire Station #6	Y	1										
White County Fire Station #7	Y	1										

\*\* Critical Response Level -- 1= Immediate assessment/response 2= Immediate assessment/response as facility is needed  
3=Secondary or delayed assessment/response as possible

WHITE COUNTY CRITICAL FACILITY AND CRITICAL INFRASTRUCTURE INVENTORY of ASSETS	CRITICAL FACILITY TYPE							COMMUNITY ELEMENTS				
	Essential Facility	Critical Response Level**	Transportation System	Lifeline System	High Potential Loss	Haz Mat Facility	Important Facility	Vulnerable Population	Economic Assets	Special Consideration	Historic Consideration	Other
<b>PUBLIC SAFETY</b>												
Helen City Fire Station	Y	1										
Long Mountain Tower Site	Y	1										
Hamby Mountain Tower Site	Y	1										
White County Sheriff's Office	Y	1										
Helen City Police	Y	1										
Cleveland City Police	Y	1										
White County EMS	Y	1										
White County Animal Ctrl		2					Y					
<b>EDUCATIONAL</b>												
Tesnatee Elementary		2					Y	Y				
White County High		2					Y	Y				
White County Middle		2					Y	Y				
Jack P. Nix Primary		2					Y	Y				
9 <sup>th</sup> Grade Academy		2					Y	Y				
Mount Yonah Elementary		2					Y	Y				
Mossy Creek Elementary		2					Y	Y				
Pre-K Child Development		2					Y	Y				
Truett McConnell University		2					Y	Y				

\*\* Critical Response Level -- 1= Immediate assessment/response 2= Immediate assessment/response as fully needed  
3=Secondary or delayed assessment/response as possible

WHITE COUNTY CRITICAL FACILITY AND CRITICAL INFRASTRUCTURE INVENTORY of ASSETS	CRITICAL FACILITY TYPE							COMMUNITY ELEMENTS				
	Essential Facility	Critical Response Level**	Transportation System	Lifeline System	High Potential Loss	Haz Mat Facility	Important Facility	Vulnerable Population	Economic Assets	Special Consideration	Historic Consideration	Other
<b>UTILITIES</b>												
White County Water Authority	Y	1		Y		Y						
WC Water Tank GA 75 Alt	Y	3		Y								
WC Water Tank Westmoreland	Y	3		Y								
WC Water Pump Town Creek	Y	2		Y								
WC Water Pump Logan's Rdg	Y	2		Y								
WC Water Pump Mtn Lakes	Y	2		Y								
GA Power Substation Leaf	Y	1		Y								
HEMC Substation Helen	Y	1		Y								
HEMC Substation Cleveland	Y	1		Y								
HEMC Substation Sandy Flats	Y	1		Y								
HEMC Substation Pless	Y	1		Y								
Helen Wastewater Plant	Y	1		Y		Y						
Helen Water Tank Hex Strass	Y	2		Y								
Cleveland Wastewater Plant	Y	1		Y		Y						
Cleveland Well Site Faulkner	Y	2		Y								
Cleveland Well Site Faulkner 2	Y	2		Y								
Cleveland Well Site Cemetery	Y	2		Y								
Cleveland Well Site Clint	Y	2		Y								
Cleveland Water Tank Blue Crk	Y	2		Y								

\*\* Critical Response Level -- 1= Immediate assessment/response 2= Immediate assessment/response as facility is needed  
3=Secondary or delayed assessment/response as possible



WHITE COUNTY CRITICAL FACILITY AND CRITICAL INFRASTRUCTURE INVENTORY of ASSETS	CRITICAL FACILITY TYPE							COMMUNITY ELEMENTS				
	Essential Facility	Critical Response Level**	Transportation System	Lifeline System	High Potential Loss	Haz Mat Facility	Important Facility	Vulnerable Population	Economic Assets	Special Consideration	Historic Consideration	Other
<b>UTILITIES</b>												
Cleveland Water Tank Warrior	Y	2		Y								
Natural Gas Pipeline Routes	Y	1		Y		Y		Y				
Fiber Optic Routes		2					Y	Y				
<b>PUBLIC FACILITIES</b>												
White County Courthouse		3					Y					
White County Admin Bldg.	Y	2										
White Co Library Cleveland		3					Y					
White Co Library Helen		3					Y					
Historic Courthouse		3					Y			Y		
<b>LONG TERM CARE</b>												
Gateway Health		1					Y	Y				
Friendship Health		1					Y	Y				
Laurel Lodge		1					Y	Y				

\*\* Critical Response Level -- 1= Immediate assessment/response 2= Immediate assessment/response as fully needed  
3=Secondary or delayed assessment/response as possible

## APPENDIX B

### Critical Facilities Vulnerabilities

(Low = less than 10% of structures likely to be affected; Moderate = 10-25% of structures likely to be affected; High = greater than 25% of structures likely to be affected)

<b>WHITE COUNTY CRITICAL FACILITY AND CRITICAL INFRASTRUCTURE INVENTORY OF VULNERABILITY</b>		<b>HAZARDS</b>								
<b>Name of Critical Structure or Building</b>	<b>Jurisdiction</b>	<b>Wildfire</b>	<b>Thunderstorms</b>	<b>Winter Storms</b>	<b>Drought</b>	<b>Flooding</b>	<b>Tornados</b>	<b>Hazardous Materials Spills</b>	<b>Dam Failures</b>	<b>Terrorism</b>
<b>GOVERNMENT FACILITIES</b>										
Helen City Hall	Helen	Low	Mod	High	Low	Mod	High	Low	Low	Mod
Cleveland City Hall	Cleveland	Low	Mod	High	Low	Low	Mod	Mod	N/A	Mod
White County Courthouse	White Co.	Low	Mod	High	Low	Low	Mod	Mod	N/A	Low
White County Senior Center	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
White County Public Works	White Co.	Low	Mod	High	Low	Mod	Mod	Low	N/A	Low
Cleveland Public Works	Cleveland	Low	Mod	High	Low	High	Mod	Low	N/A	Low
Helen Public Works	Helen	Low	Mod	High	Low	High	High	Low	N/A	Low
White County Administrative Bldg.	White Co.	Low	Mod	High	Low	High	High	Low	N/A	Low
<b>PUBLIC SAFETY FACILITIES</b>										
Cleveland Fire Department	Cleveland	Low	Mod	High	Low	Low	Mod	Mod	N/A	Mod
Allen Mauney Public Safety Building	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Mod
White County Fire Department Station #2	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
White County Fire Department Station #3	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
White County Fire Department Station #4	White Co.	Mod	Mod	High	Low	Low	Mod	Low	N/A	Low
White County Fire Department Station #5	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
White County Fire Department Station #6	White Co.	Mod	Mod	High	Low	Low	Mod	Low	N/A	Low
White County Fire Department Station #7	White Co.	Mod	Mod	High	Low	Low	Mod	Low	N/A	Low
Helen Fire Department	Helen	Low	Mod	High	Low	Mod	Mod	High	Low	Low

Name of Critical Structure or Building	Jurisdiction	Wildfire	Thunderstorms	Winter Storms	Drought	Flooding	Tornados	Hazardous Materials Spills	Dam Failures	Terrorism
<b>PUBLIC SAFETY FACILITIES</b>										
Long Mountain Communications Tower	White Co.	Mod	Mod	High	Low	Low	Mod	Low	N/A	Mod
Hamby Mountain Communications Tower	White Co.	Mod	Mod	High	Low	Low	Mod	Low	N/A	Mod
White County Detention Center/Sheriff Office	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
Helen Police Dept. & Jail	Helen	Mod	Mod	High	Low	Low	Mod	Low	N/A	Low
Cleveland Police Department	Cleveland	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
White County EMA Hqtrs.	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
White County Animal Control	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
<b>EDUCATIONAL FACILITIES</b>										
Tesnatee Elementary School	White Co.	Low	Mod	High	Low		Mod	Low	N/A	High
White County High School	White Co.	Low	Mod	High	Low	N/A	Mod	Low	N/A	High
White County Middle School	Cleveland	Low	Mod	High	Low	Low	Mod	Low	N/A	High
Jack P. Nix Primary School	Cleveland	Low	Mod	High	Low	Low	Mod	Low	N/A	High
9th Grade Academy	Cleveland	Low	Mod	High	Low	Low	Mod	Low	N/A	High
Mount Yonah Elementary School	White Co.	Mod	Mod	High	Low	N/A	Mod	Low	N/A	High
Pre-K Child Development Center	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	High
Mossy Creek Elementary School	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	High
Truett McConnell University	Cleveland	Low	Mod	High	Low	Low	Mod	Low	N/A	High
<b>UTILITIES</b>										
White County Water Authority	White Co.	Mod	Mod	High	Mod	High	Mod	Low	High	Mod
WC Water Storage Tank / Hwy. 75	White Co.	Mod	Mod	High	Mod	Mod	Mod	Low	N/A	Mod
WC Water Storage Tank / Westmoreland Rd	White Co.	Mod	Mod	High	Mod	Low	Mod	Low	N/A	Mod
WC Water Pump Town Gak	White Co.	Mod	Mod	High	Mod	Low	Mod	Low	N/A	Mod
WC Water Pump Logan's Rdg	White Co.	Mod	High	High	Low	N/A	High	Low	N/A	Mod
WC Water Pump Mtn Lakes	White Co.	Mod	High	High	Low	N/A	High	Low	Low	Mod
WC Water Pump Westmoreland Rd	White Co.	Mod	High	High	Low	N/A	High	Low	Low	Mod
WC Water Pump Meadow Crest	White Co.	Mod	High	High	Low	N/A	High	Low	Low	Mod

Name Of Critical Structure or Building	Jurisdiction	Wildfire	Thunderstorms	Winter Storms	Drought	Flooding	Tornados	Hazardous Material Spills	Dam Failure	Terrorism
<b>UTILITIES</b>										
WC Water Pump HighlandForest	White Co.	Mod	High	High	Low	N/A	High	Low	Low	Mod
WC Water Pump Mountain SideDr.#1	White Co.	Mod	High	High	Low	NA	High	Low	Low	Mod
WC Water Pump Mountain SideDr.#2	White Co.	Mod	High	High	Low	NA	High	Low	Low	Mod
WC Water Pump Mountain SideDr.#3	White Co.	Mod	High	High	Low	NA	High	Low	Low	Mod
WC Water Pump S Laceola Rd	White Co.	Mod	High	High	Low	NA	High	Low	Low	Mod
GA. Power Leaf Substation	White Co.	Low	Mod	High	N/A	Low	Mod	Low	N/A	Mod
HEMC Helen Substation	Helen	Low	Mod	High	N/A	Mod	Mod	Low	High	Mod
HEMC Cleveland Substn	Cleveland	Low	Mod	High	N/A	Low	Mod	Low	N/A	Mod
HEMC Sandy Flats Substn	White Co.	High	High	High	N/A	Low	Mod	Low	N/A	Low
HEMC Pless Substation	White Co.	Low	High	High	N/A	Low	Mod	Low	N/A	Low
Helen Wastewater Treatment Plant	Helen	Low	High	High	Low	High	High	Mod	High	Low
Helen Water Tank Hex Strasse St.	Helen	Low	High	High	Low	Low	High	Mod	N/A	Low
Helen Water Tank White St	Helen	Low	High	High	Low	N/A	High	Mod	NA	Low
Cleveland Wastewater Treatment Plan	Cleveland	Low	High	High	Low	High	Mod	Mod	High	Low
Cleveland Well Site Faulkner St	Cleveland	Low	Low	Low	Mod	High	Low	Low	N/A	Low
Cleveland Well Site Faulkner St 2	Cleveland	Low	Low	Low	Mod	High	Low	Low	N/A	Low
Cleveland Well Site Cemetery St.	Cleveland	Low	Low	Low	Mod	High	Low	Low	N/A	Low
Cleveland Well Site Clint St	Cleveland	Low	Low	Low	Mod	Mod	Low	Low	N/A	Low
Cleveland Water Tank Blue Creek	Cleveland	Low	High	High	Mod	Low	Mod	Low	N/A	Low
Cleveland Water Tank Warrior	White Co.	Mod	High	High	Mod	N/A	Mod	Low	N/A	Low
Natural Gas Pipeline Routes	White Co.	Low	Low	Low	Low	Low	Low	Low	N/A	Low
Fiber Optic Cable	White Co.	Low	Low	Low	Low	Low	Low	Low	N/A	Low
<b>PUBLIC FACILITIES</b>										
White County Library-Cleveland Branch	White Co.	Low	Mod	High	Low	N/A	Mod	Low	N/A	Low
White County Library-Helen Branch	Helen	Low	Mod	High	Low	N/A	Mod	Low	N/A	Low

White County Court House	White Co.	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
Historic White County Courthouse	Cleveland	Low	Mod	High	Low	Low	Mod	Mod	N/A	Low
<b>LONG TERM CARE</b>										
Friendship Health & Rehabilitation Center	White Co	Low	Mod	High	Low	N/A	Mod	Low	N/A	Low
Gateway Health & Rehabilitation Center	White Co	Low	Mod	High	Low	Low	Mod	Low	N/A	Low
Laurel Lodge	Cleveland	Low	Mod	High	Low	Low	Mod	Low	N/A	Low

## ESTIMATED LOSS AMOUNTS OF CRITICAL FACILITIES

Name of Critical Structure or Building	Replacement Value	Data Year	Contents Value	Data Year	Total	25% value	50% Value	75% Value
<b>GOVERNMENT</b>								
Helen City Hall	\$1,297,660	2014	\$226,380	2014	\$1,524,040	\$381,010	\$762,020	\$1,143,030
Cleveland City Hall	\$369,547	2014	\$44,346	2014	\$413,893	\$103,474	\$206,947	\$310,420
White County Senior Center	\$1,454,700	2014	\$187,300	2014	\$1,642,000	\$410,500	\$821,000	\$1,231,500
White County Public Works	\$432,800	2014	\$125,000	2014	\$557,800	\$139,450	\$278,900	\$418,350
Cleveland Public Works	\$179,550	2013	\$21,546	2014	\$201,096	\$50,247	\$100,548	\$150,822
White Co Admin Bldg.	\$5,093,400	2014	\$561,500	2014	\$5,654,900	\$1,413,725	\$2,827,450	\$4,241,175
<b>PUBLIC SAFETY</b>								
Cleveland Fire Department	\$369,547	2014	\$44,346	2014	\$413,893	\$103,474	\$206,947	\$310,420
Allen Mauney Bldg.	\$2,752,800	2014	\$389,700	2014	\$3,142,500	\$785,625	\$1,571,250	\$2,356,875
White County Station 2	\$372,100	2014	\$157,500	2014	\$529,600	\$132,400	\$264,800	\$397,200
White County Station 3	\$615,200	2014	\$99,800	2014	\$715,000	\$178,750	\$375,500	\$536,250
White County Station 4	\$395,600	2014	\$42,000	2014	\$437,600	\$109,400	\$218,800	\$328,200
White County Station 5	\$206,100	2014	\$15,800	2014	\$221,900	\$55,475	\$110,950	\$166,425
White County Station 6	\$257,000	2014	\$21,000	2014	\$278,000	\$69,500	\$139,000	\$208,500
White County Station 7	\$257,000	2014	\$33,600	2014	\$290,600	\$72,650	\$145,300	\$217,950
Helen Fire Department	\$486,200	2014	\$170,000	2014	\$656,200	\$164,050	\$328,100	\$492,150

Name of Critical Structure or Building	Replacement Value	Data Year	Content Value	Data Year	Total	25% value	50% Value	75% Value
<b>PUBLIC SAFETY</b>								
Long Mountain Tower	\$60,000	2014	\$215,000	2014	\$275,000	\$68,750	\$137,500	\$206,250
Hamby Mountain Tower	N/A	2014	\$135,000	2014	\$135,000	\$33,750	\$67,500	\$101,250
White County Sheriff's Office	\$9,995,000	2014	\$483,900	2014	\$10,478,900	\$2,619,725	\$5,239,450	\$7,859,175
Helen Police Department	\$556,140	2014	\$97,020	2014	\$653,160	\$163,290	\$326,580	\$489,870
Cleveland Police Department	\$369,547	2014	\$44,346	2014	\$413,893	\$103,474	\$206,947	\$310,420
White County EMS	\$1,194,200	2014	N/A	--	\$1,194,200	\$298,550	\$597,100	\$895,600
White County Animal Control	\$266,600	2014	\$10,500	2014	\$309,000	\$77,250	\$154,500	\$231,750
<b>EDUCATIONAL</b>								
Tesnatee Gap Elementary	\$10,252,000	2012	\$1,817,400	2012	\$12,070,000	\$3,017,500	\$6,035,000	\$9,052,500
White County High	\$20,230,800	2012	\$3,657,300	2012	\$23,888,100	\$5,972,025	\$11,944,050	\$17,916,075
White County Middle	\$15,722,200	2012	\$1,850,900	2012	\$17,573,100	\$4,393,275	\$8,786,550	\$13,179,825
Jack P. Nix Primary	\$8,851,200	2012	\$1,392,000	2012	\$10,243,200	\$2,560,800	\$5,121,600	\$7,682,400
9th Grade Academy	\$7,076,500	2012	\$1,487,900	2012	\$8,564,400	\$2,141,100	\$4,282,200	\$6,423,300
Mount Yonah Elementary	\$12,299,800	2012	\$1,769,100	2012	\$14,068,900	\$3,517,225	\$7,034,450	\$10,551,675
Pre-K Child Development	\$1,359,766	2013		--	\$1,359,766	\$339,942	\$679,883	\$1,019,825
Mossy Creek Elementary	\$10,881,100	2012	\$1,848,200	2012	\$12,729,300	\$3,182,325	\$6,364,650	\$9,546,975
Truett- McConnell University	\$14,512,228	2009		--	\$14,512,228	\$3,628,057	\$7,256,114	\$10,884,171

Name of Critical Structure or Building	Replacement Value	Data Year	Contents Value	Data Year	Total	25% value	50% Value	75% Value
<b>UTILITIES</b>								
White County Water Authority	\$251,900	2013	N/A	--	\$251,900	\$62,975	\$125,950	\$188,925
WC Water Pump Hwy 75 Alt	\$100,000	2008	N/A	-	\$100,000	\$25,000	\$50,000	\$75,000
WC Water Pump Westmoreland	\$123,000	2008	N/A	-	\$123,000	\$30,750	\$61,500	\$92,250
WC Water Town Creek	\$100,000	2008	N/A	-	\$100,000	\$25,000	\$50,000	\$75,000
WC Water Tank Hwy 75 Alt	\$500,000	2013	N/A	-	\$500,000	\$125,000	\$250,000	\$375,000
WC Water Tank Westmoreland	\$350,000	2013	N/A	-	\$350,000	\$87,500	\$175,000	\$262,500
WC Water Pump Meadow Crest	\$20,000	2013	N/A	-	\$20,000	\$5,000	\$10,000	\$15,000
WC Water Pump Highland	\$20,000	2013	N/A	-	\$20,000	\$5,000	\$10,000	\$15,000
WC Water Pump Logan's Rdg	\$100,000	2013	N/A	-	\$100,000	\$25,000	\$50,000	\$75,000
WC Water Pump Mountain #1	\$75,000	2013	N/A	-	\$75,000	\$18,750	\$37,500	\$56,250
WC Water Pump Mountain #2	\$75,000	2013	N/A	-	\$75,000	\$18,750	\$37,500	\$56,250
WC Water Pump Mountain #3	\$75,000	2013	N/A	-	\$75,000	\$18,750	\$37,500	\$56,250
WC Water Pump S Laceola	\$125,000	2013	N/A		\$125,000	\$31,250	\$62,500	\$93,750
HEMCLLeaf Substation								



Name of Critical Structure or Building	Replacement Value	Data Year	Contents Value	Data Year	Total	25% Value	50% Value	75% Value
<b>UTILITIES</b>								
HEMC Helen Substation								
HEMC Cleveland Substation								
HEMC Sandy Flats Substation								
HEMC Pless Substation								
Helen Pumping Station	\$773,600	2014	N/A	2014	\$773,600	\$193,400	\$386,800	\$580,200
Helen Water Tower Hex Strasse	\$532,000	2012	N/A	2012	\$532,000	\$132,000	\$260,000	\$396,000
Helen Wastewater Plant	\$353,000	2014	\$200,000	2014	\$553,000	\$138,250	\$276,500	\$414,750
Cleveland Wastewater Plant	\$3,775,200	2014	\$453,024	2014	\$4,228,224	\$1,057,056	\$2,114,112	\$3,171,168
Cleveland Well Faulkner St	\$5,000	2014	N/A	--	\$5,000	\$1,250	\$2,500	\$3,750
Cleveland Well Site Faulkner2	\$5,000	2014	N/A	--	\$5,000	\$1,250	\$2,500	\$3,750
Cleveland Well Site Cemetery	\$5,000	2014	N/A	--	\$5,000	\$1,250	\$2,500	\$3,750
Cleveland Well Site Clint	\$35,400	2014	N/A	--	\$35,400	\$8,850	\$17,700	\$26,500
Cleveland Tank Blue Creek	\$250,000	2014	N/A		\$250,000	\$62,500	\$125,000	\$187,500
Cleveland Tank Warrior	\$450,000	2014	N/A	--	\$450,000	\$112,500	\$225,000	\$337,500
Natural Gas Pipeline Routes		2012						
Fiber Optic Cable Routes		2012						

<b>Name of Critical Structure or Building</b>	<b>Replacement Value</b>	<b>Data Year</b>	<b>Contents Value</b>	<b>Data Year</b>	<b>Total</b>	<b>25% Value</b>	<b>50% Value</b>	<b>75% Value</b>
<b>PUBLIC FACILITIES</b>								
White County Courthouse	\$2,666,600	2014	\$425,600	2014	\$4,092,200	\$1,023,050	\$2,046,100	\$3,069,150
WC Library Cleveland	\$767,800	2014	\$717,600	2014	\$1,790,850	\$447,713	\$895,425	\$1,343,137
WC Library Helen	\$865,051	2013	N/A	--	\$865,051	\$216,262	\$432,525	\$648,789
Historic White County Courthouse	\$1,049,300	2014	\$17,000	2014	\$1,066,300	\$266,575	\$533,150	\$799,725
<b>LONG TERM CARE</b>								
Friendship Health Center	\$1,494,371	2013	N/A	--	\$1,494,371	\$373,593	\$747,185	\$1,120,778
Gateway Health Center	\$1,102,507	2013	N/A	--	\$1,102,507	\$254,957	\$509,912	\$764,869
Laurel Lodge								

**APPENDIX C**  
**2016 Mitigation Goals and Strategies Status**

Mitigation Strategy	White County	City of Cleveland	City of Helen
<b>Fire/Wildfire</b>			
Defensible Slopes	N	N	N
Power Line Maintenance	N/A	N/A	N/A
<b>Severe Thunderstorms</b>			
Warning Sirens	IP	✓	✓
Weather Radios	N	N	N
Elder Population Shelters	N	N	N
Manufactured Homes Review	IP	N	N
Construction Standards	✓	✓	✓
<b>Winter Storms</b>			
Expanded Road Maintenance Capabilities	IP	N	N
Generator Inventories/Purchased	IP	IP	IP
Power Line Protection	N/A	N/A	N/A
Snow and Ice Loads	✓	✓	✓
<b>Drought</b>			
Water Use Ordinances	N	N	N
Defensible Slopes	IP	N	N
Power Line Maintenance	N/A	N/A	N/A
<b>Tornados</b>			
Warning Sirens	IP	✓	✓
Weather Radios	N	N	N
Elderly Population Shelter	N	N	N
Manufactured Home Review	✓	N	N
Construction Standards	✓	✓	✓
<b>Hazardous Materials</b>			
Safety Procedures/Plan	✓	✓	✓
Local Emergency Planning	✓	✓	✓
Emergency Response Teams	IP	N	N
Industrial Site Buffering	N**	N	N
<b>Dam Failures</b>			
Sound Design Requirements	✓	N/A	N/A
Local Comprehensive Inspections	N	N/A	N/A
<b>Flooding</b>			
Floodplain Management	✓	N/A	N/A
Construction Standards	✓	✓	✓
Update Floodplain Maps	N	N	N
Road Improvements	✓	N/A	N/A
Community Service Rating	N	N	N

✓ =Completed N=No IP= In Process N/A= Not Applicable

\*\* While Site buffering is not address specifically, some restrictions of on-site locations are addressed in local environmental ordinances and Land Use ordinances.

## **APPENDIX D**

### **2018 Wildfire Protection Plan – See Tab Section**



A Program of the Georgia Forestry  
Commission

### **Community Wildfire Protection Plan *An Action Plan for Wildfire Mitigation and Conservation of Natural Resources***

**APPENDIX E**  
**COMMUNITY MEETINGS AND INVOLVEMENT**

Dear ,

The Federal Emergency Management Agency (FEMA) requires state, tribal, and local governments to develop and adopt hazard mitigation plans as a condition for receiving certain types of disaster funding and non-emergency disaster assistance, including funding for mitigation projects. Jurisdictions must update their hazard mitigation plans and re-submit them for FEMA approval every five years to maintain this eligibility.

Considering the events of the past few years, it is crucial that we keep our plan up to date to meet these requirements. White County, the Cities of Cleveland and Helen have benefited from mitigation projects and disaster assistance funds due to our comprehensive hazard mitigation plan.

A representative from GEMA will be here on Tuesday, September 25, 2018 at 1:00PM to kick-off our plan update. She will have valuable information for each of us concerning the FEMA requirements.

White County Hazard Mitigation Plan Kickoff Meeting  
EOC - 1241 Helen Highway  
September 25, 2018 @ 1:00 PM

This kick off meeting is required for the staff of each jurisdiction which will be working on the plan. I encourage attendance to this meeting for compliance with FEMA and to will have a good understanding of the information that will be requested of you and your department as we go forward with this plan revision. I encourage you to bring any staff or invite any staff within your agency that should be part of this planning process.

If you have any questions, please do not hesitate to contact our office.

Sincerely,

David L. Murphy, Jr.  
Emergency Management Director

**Kickoff Letter of Invitation to Stakeholders for September 25, 2018. Meeting was rescheduled for October 2, 2018.**

## Letters of Invitation Sent to the Following:

### Letter of Invitation Sent to the Following:

#### White County Government

- Mr. Mike Melton, County Manager
- Mrs. Shanda Murphy, County Clerk
- Mrs. Jodi Ligon, Chief Financial Officer
- Mr. Bryan Payne, Chief Appraiser, Tax Assessor's Office
- Mr. Ken Payne, County Maintenance Director
- Mrs. Barbara Overton, Senior Center Director
- Mr. John Sell, Director of Community Development
- Mr. Harry Barton, Director of Planning and Solid Waste
- Mrs. Ana Newberry, White County Fire Department
- Mr. Norman Alexander, Fire Chief
- Mr. Seth Weaver, White County Fire Department
- Sheriff Neal Walden, White County Sheriff's Office
- Mr. Dave Cangemi, Director of Public Works
- Mr. Roy Stevens, WC CERT

#### City of Cleveland

- Mr. Tom O'Bryant, City of Cleveland
- Mr. John Foster, Chief of Police
- Mr. Ricky Pruitt, Fire Chief
- Mrs. Connie Tracas, City Clerk

#### City of Helen

- Mr. Jerry Elkins, City Manager
- Mr. Brian Stephens, Chief of Police
- Mr. Jody Prickett, Fire Chief
- Mr. Darrell Westmoreland, City of Helen

#### Other Stakeholders

- Mrs. Laurie Burkett, White County Board of Education
- Mr. Edwin Nix, White County Water Authority
- Mr. Don Strength, GEMA Area 1 Coordinator
- Mr. Sean Sullivan, Environmental Health
- Mrs. Cindy King, White County Health Department
- Mr. Dean Dyer, WRWH Radio
- Mr. Stacy Dyer, Shoal Creek Baptist Church
- Mr. Gary Jarnagin, Truett McConnell College
- Mr. Marc Turner, Cleveland Worship Center

Hazard Mitigation Planning Committee  
Kickoff Meeting  
October 2, 2018,  
1PM

AGENDA

Welcome- Public Safety Director, David Murphy

Acknowledgement of Special Guests

Introduction of Stakeholders and

Plan Update Requirements  
Review of Guidelines

Kickoff Presentation-, GEMA

Committee Assignments- Dir. David Murphy  
Critical Facilities  
Risk Assessment

Discussion

**Kickoff Meeting Sign In Sheets**

Pre-Disaster Hazard Mitigation Meeting				
White County			Date: 10/2/2018	
Name	Title	Organization	Phone	Email
Camie Downey ✓	Admin	WC EMA		Cdowney@whitecounty.net
DAVID Murphy ✓	Director	EMA		dmurphy@whitecounty.net
ROY STEVENS ✓	CERT COORDINATOR	EMG		RSTEVENS@WHITECOUNTY.GA
ANA NEWBERRY ✓	FF	WCFD		ANewberry@whitecounty.net
NORMAN ALEXANDER ✓	Chief	WCFD		NAlexander@whitecounty.net
Jody Prickett ✓	Chief	Helen Fire		Jprickett@cityofhelen.org
Ross Hewell ✓	Public Works Director	Helen		rhewell@cityofhelen.org
DARRELL WESTMORELAND ✓	B/Z DIRECTOR	Helen		DWESTMORELAND@CITYOFHELEN.ORG
BRIAN STEPHENS ✓	CHIEF	HELEN POLICE		bstephens@helenpolice.org



**Pre-Disaster Hazard Mitigation Meeting  
White County Date: 10/2/2018**

Name	Title	Organization	Phone	Email
✓ Ken Payne	MAINT. DIR.	WC. BOC	706-865-2235	kpayne@whitecounty.net
✓ Diane Dyer	Office Coordinator	WC Senior Center	706-865-4097	ddyer@whitecounty.net
Justin Coalley	Director of Facilities Mgmt Truett McConnell	TMU	706 865 2136 x3301	jcoalley@truett.edu
✓ Gary Jarman	Dir. Financial Dvp.	TMU	678 836 8749	gjarman@truett.edu
✓ Seth Weaver	Fire Lt	WC Fire		SWeaver@whiteco.net
✓ Shanda Murphy	County Clerk	WC BOC	706 865 2235	Smurphy@whitecounty.net
✓ Jodi Ligon	Finance Director	WC BOC	706-865-2235	jligon@whitecounty.net
✓ Edwin Nix	Fire Director	WC Water	706-865-0188	edwinnix@whitecountywater.net
✓ Tom O'Byrne	City Adm	Cleveland	706 865-2017	to Byrne@cityofclevelandga.org

**Disaster Hazard Mitigation Kick Off Meeting**  
**WHITE County**

**Date: 10-2-2018**

Name	Organization	Phone	Email
✓ JBZ ✓	WCP	706 865 675	jbrun
✓ DAVE CANGEMI ✓	WC	706-899-7399	dcangemi@whitecounty.wcga
JOHN ERBELE	WC	706 878 0726	erbele@WINOSTREAM.NET

**Pre-Disaster Hazard Mitigation Meeting**  
**White County** **Date: 10/2/2018**

Name	Title	Organization	Phone	Email
Daren Wilson ✓		W.C.S.O.	706 200 7049	DWelborn@WhiteCounty.nc.gov

## WC Hazard Mitigation Plan 2016

Cami Downey <cdowney@whitecounty.net>

Tue 10/2/2018 3:14 PM

To: Ana Newberry <anewberry@WhiteCounty.net>; Brian Stephens <bstephens@helenpolice.org>; Daren Weilborn <dweilborn@whitecounty.net>; Darrell Westmoreland <dwestmoreland@cityofhelen.org>; Dave Cangemi <dcangemi@whitecounty.net>; David Murphy <dmurphy@whitecounty.net>; Diane Dyer <ddyer@whitecounty.net>; Edwir <enix@whitecounty.net>; Gary Jarnagin <gjarnagin@truett.edu>; Harry Barton <hbarton@WhiteCounty.net>; Jodi Ligon <jligon@whitecounty.net>; Jody Prickett <jprickett@cityofhelen.org>; John Erbele <erbele@windstream.net>; John Foster <chiefoster@cityofclevelandga.org>; Justin Coalley <jcoalley@truett.edu>; Ken Payne <kpayne@whitecounty.net>; Norma Alexander <nalexander@whitecounty.net>; Roy Stevens <rstevens@whitecounty.net>; Seth Weaver <sweaver@whitecounty.net>; Shanda Murphy <smurphy@whitecounty.net>

1 attachments (30 MB)

WC Hazard Mitigation Plan 2016.docx

Hello,

I would like to take a minute and Thank You for participating in our Hazard Mitigation Plan kickoff meeting tod; know we all have busy schedules, however, after this meeting I'm sure you can see how important this plan is our communities and county.

I have attached a copy of our current Hazard Mitigation Plan for your review and to give you an Idea of what w will need to look at going forward. Let me know if you have any questions.

Thank you for all you do.


### ***Cami Downey***

Administrative Assistant  
White County Public Safety  
EMA-911-Fire Services-Animal Control  
1241 Helen Highway Suite 100  
Cleveland, Ga. 30528  
706-865-9500 Phone  
706-219-3084 Fax

**PUBLIC OUTREACH OPPORTUNITIES COMPLETED:**

- WC webpage posting -

White County MENU



White County Gateway to the Mountains

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Useful Links

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Receive Emergency Notifications (<http://www.whitecounty.net/public-safety/emergency-management/code-red>)

COUNTY WEBSITE

<https://www.surveymonkey.com/r/WhiteCountyCleveland...> (<https://www.surveymonkey.com/r/WhiteCountyClevelandHelen>)



[http://www.whitecounty.net/download\\_file/2616](http://www.whitecounty.net/download_file/2616)

Comprehensive Plan Survey ([http://www.whitecounty.net/download\\_file/2616](http://www.whitecounty.net/download_file/2616))

Take our 1 minute survey on Hazard Mitigation

<https://www.surveymonkey.com/r/HQNLMMMP> (<https://www.surveymonkey.com/r/HQNLMMMP>)



[http://www.whitecounty.net/download\\_file/2670](http://www.whitecounty.net/download_file/2670)

Hazard Mitigation Plan ([http://www.whitecounty.net/download\\_file/2670](http://www.whitecounty.net/download_file/2670))

White County's Plan to mitigate hazards in our community.

COUNTY WEBSITE



**White County  
Public Safety**  
@whitecountyma

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Welcome

**NEWS RELEASE**

For Immediate Release  
April 29, 2021

Contact: *David Murphy* / (706) 865-9500

**White County Emergency Management Seek Public Input**

The White County Emergency Management Agency is updating the County Hazard Mitigation Plan as part of White County's commitment to disaster preparedness and are asking for your thoughts and suggestions. A public review will be held on May 18, 2021 at 4PM and 6PM in the Board of Commissioners meeting room located at 1235 Helen Hwy, Cleveland.

The public may review the final draft and provide comments/suggestions to staff in person on May 18<sup>th</sup> or by reviewing a copy on our website. Your input is very important. You may obtain a copy of this document at the White County Public Safety Office located at 1241 Helen Hwy, Ste 100, Cleveland, or find a digital copy on line at [www.whitecounty.net](http://www.whitecounty.net)

For more information, you may call 706-865-9500.

\*\*\*

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FACEBOOK/TWITTER POSTS

## EMAIL NOTIFICATIONS – PRESS RELEASES:

### David Murphy

**From:** David Murphy  
**Sent:** Friday, April 30, 2021, 11:41 AM  
**To:** \_Department Managers; \_Elected Officials; Andee Coarson ([acourson2011@live.com](mailto:acourson2011@live.com)); Andy Chambers ([andyscottchambers@gmail.com](mailto:andyscottchambers@gmail.com)); Bob Burt ([pegbob50@yahoo.com](mailto:pegbob50@yahoo.com)); [bterry@helenfb.org](mailto:bterry@helenfb.org); Bucky Erwin ([b\\_erwin24@yahoo.com](mailto:b_erwin24@yahoo.com)); Bucky Erwin ([lcormier@firstcleveland.com](mailto:lcormier@firstcleveland.com)); Burnetta Armour ([pasterb@fpcleveland.org](mailto:pasterb@fpcleveland.org)); Cheryl Kennedy ([Cheryl@TheBridgeOnline.cc](mailto:Cheryl@TheBridgeOnline.cc)); [lcindyalexander@gmail.com](mailto:lcindyalexander@gmail.com); Dan Crumley ([mtyonahbaptist@windstream.net](mailto:mtyonahbaptist@windstream.net)); Darryl Lovell ([dlovell@windstream.net](mailto:dlovell@windstream.net)); Darryl Lovell ([generationchurchnga@gmail.com](mailto:generationchurchnga@gmail.com)); Dennis Turner ([dturner@firstcleveland.com](mailto:dturner@firstcleveland.com)); Fabio Alvarez ([saintpaul30528@windstream.net](mailto:saintpaul30528@windstream.net)); Garvis Kinsey ([garvis.kinsey@ngumc.net](mailto:garvis.kinsey@ngumc.net)); Gary Hawkinson ([gmhawk40@gmail.com](mailto:gmhawk40@gmail.com)); James Forrester ([jforrester@concordministries.org](mailto:jforrester@concordministries.org)); Jeremy Cullum ([jcul121@gmail.com](mailto:jcul121@gmail.com)); Jim Gant ([jgant@helenfb.org](mailto:jgant@helenfb.org)); Jim Holmes ([jholmes@helenfb.org](mailto:jholmes@helenfb.org)); Jimmy Sargent ([jsarge@windstream.net](mailto:jsarge@windstream.net)); Joey Pritchett ([pastorjoey@windstream.net](mailto:pastorjoey@windstream.net)); Keith Ivey ([kivey@gabaptist.org](mailto:kivey@gabaptist.org)); Keith Windmiller ([keith.windmiller@ngumc.net](mailto:keith.windmiller@ngumc.net)); Kevin Woody ([kevinwoody@bellsouth.net](mailto:kevinwoody@bellsouth.net)); Manning Minton ([manningminton@gmail.com](mailto:manningminton@gmail.com)); Marc Turner ([marc@thecwconline.org](mailto:marc@thecwconline.org)); Matt Munson ([munson\\_tina@yahoo.com](mailto:munson_tina@yahoo.com)); Michael Wilkes ([centerbc@windstream.net](mailto:centerbc@windstream.net)); Newlin Vargas ([nvargas.basan@gmail.com](mailto:nvargas.basan@gmail.com)); Patrick Ballington ([patrick@thebridgeonline.cc](mailto:patrick@thebridgeonline.cc)); Robert Prim ([afbprim@windstream.net](mailto:afbprim@windstream.net)); Ross Sparks ([jsparks50@gmail.com](mailto:jsparks50@gmail.com)); Scott Kidd ([frscott3@gmail.com](mailto:frscott3@gmail.com)); Ted Keen ([ted.keen@ngumc.net](mailto:ted.keen@ngumc.net)); Tim Morgan ([timbo12683@gmail.com](mailto:timbo12683@gmail.com)); /o=White County Government/ou=INTERNAL/cn=Recipients/cn=jparks; Augusto Sesam; Bryan Payne; Cindy Cannon; Craig Bryant; Danny Woods; Dena Adams; Diana Blihovde; Edwin Nix; Harry Barton; James Couch; James Winkler; Jason Cobb; Joe D. Gailey; John Sell; Ken Payne; Krystal Talley; Leah Sullens; Lisa Manning; Lyn Holcomb; Rick Kelley; Rolann Smith; Seth Weaver; Shelia Simmons; Stephen Sayer; Terry Goodger; Tim Chapman; Aaron Weiland ([cptweiland@cityofclevelandga.org](mailto:cptweiland@cityofclevelandga.org)); Bill Scandrett; [bstephens@helenpolice.org](mailto:bstephens@helenpolice.org); Dave Cangemi ([dcangemi@whitecounty.net](mailto:dcangemi@whitecounty.net)); Jeff Shoemaker; [jelkins@cityofhelen.org](mailto:jelkins@cityofhelen.org); Joan Turner; Jody Prickett ([jprickett@cityofhelen.org](mailto:jprickett@cityofhelen.org)); Laurie Burkett; Marsha Derrick; Ricky Barrett; Ricky Pruitt ([ricky.pruitt@vincitgroup.com](mailto:ricky.pruitt@vincitgroup.com)); Scott Justus; [scott.masters@nghs.com](mailto:scott.masters@nghs.com); Terry Sosebee; Tom O'Bryant ([tobryant@cityofclevelandga.org](mailto:tobryant@cityofclevelandga.org)); Cindy King ([cindy.king@dph.ga.gov](mailto:cindy.king@dph.ga.gov)); Connie Tracas ([cityclerk@cityofclevelandga.org](mailto:cityclerk@cityofclevelandga.org)); Jodi Ligon; Joel Witcher; Josh Turner ([jturner@cityofclevelandga.org](mailto:jturner@cityofclevelandga.org)); Nathan Eason ([neason@uga.edu](mailto:neason@uga.edu)); Ricky Barrett ([barrettfuneralhome@windstream.net](mailto:barrettfuneralhome@windstream.net)); Ricky Pruitt ([ricky@vincitgroup.com](mailto:ricky@vincitgroup.com)); Scott Wilbanks ([rswilbanks@dhr.state.ga.us](mailto:rswilbanks@dhr.state.ga.us)); Sean Sullivan ([sean.sullivan@dph.ga.gov](mailto:sean.sullivan@dph.ga.gov)); [smurphy@whitecounty.net](mailto:smurphy@whitecounty.net); Travis Turner; Adam Wiley ([adam.wiley@white.k12.ga.us](mailto:adam.wiley@white.k12.ga.us)); Allison Funk; Angie Helton ([ahelton@white.k12.ga.us](mailto:ahelton@white.k12.ga.us)); Craig Turner; Darren Sledge ([darren.sledge@white.k12.ga.us](mailto:darren.sledge@white.k12.ga.us)); Debbie Pruitt ([dpruitt@white.k12.ga.us](mailto:dpruitt@white.k12.ga.us)); Holly Pardue ([holly.pardue@white.k12.ga.us](mailto:holly.pardue@white.k12.ga.us)); [janice.allison@ndohs.org](mailto:janice.allison@ndohs.org); Jennifer Goss-King; Jill Baughman ([jbaughman@white.k12.ga.us](mailto:jbaughman@white.k12.ga.us)); Joseph Cash ([joe.cash@mymec.org](mailto:joe.cash@mymec.org)); Josh Chatham; Justin Coalley; Kristi Gerrells ([kgerrells@white.k12.ga.us](mailto:kgerrells@white.k12.ga.us)); Laura Hall ([Laura.hall@white.k12.ga.us](mailto:Laura.hall@white.k12.ga.us)); Lloyd Collins ([lloyd.collins@white.k12.ga.us](mailto:lloyd.collins@white.k12.ga.us)); MaryAnne Collier ([maryanne.collier@white.k12.ga.us](mailto:maryanne.collier@white.k12.ga.us)); Nara Allen; OCTAVIUS MULLIGAN ([octavius.mulligan@white.k12.ga.us](mailto:octavius.mulligan@white.k12.ga.us)); Shanda Bartlett ([sbartlett@white.k12.ga.us](mailto:sbartlett@white.k12.ga.us)); Stacie Ward ([sbward@white.k12.ga.us](mailto:sbward@white.k12.ga.us)); Stephanie Bolton ([stephanie.bolton@white.k12.ga.us](mailto:stephanie.bolton@white.k12.ga.us)); Stephen Gerrells ([stephen.gerrells@white.k12.ga.us](mailto:stephen.gerrells@white.k12.ga.us)); Sydney Sanford



([sydney.sanford@mymec.org](mailto:sydney.sanford@mymec.org)); Teresa Greenway; Tony Wright ([jwright@truett.edu](mailto:jwright@truett.edu));  
Twanna Fain

**Cc:** Don Strength ([donald.strength@gema.ga.gov](mailto:donald.strength@gema.ga.gov)) ([donald.strength@gema.ga.gov](mailto:donald.strength@gema.ga.gov));

1

**Cc:** [david.shanks@gema.ga.gov](mailto:david.shanks@gema.ga.gov); Jonathan Jones ([Jonathan.Jones@gema.ga.gov](mailto:Jonathan.Jones@gema.ga.gov));  
Kimberly Angel; Cami Downey; Laverne Higdon; Leah Torregiano; Michael LeFevre;  
Sherrill Dockery

**Subject:** Media Press Release -- Hazard Mitigation Plan

**Attachments:** HMP Update Press Release\_04292021.pdf; WC Hazard Mitigation Plan Update\_2020  
Rev2021-4\_DRAFT.pdf

All partner agencies and officials ---

Please see the attached press release and the draft hazard mitigation plan for White County.

We are in the process of public information meetings, postings, and notifications while at the same time making modifications based on GEMA recommendations. Please take the time to review and comment via email to [mderrick@whitecounty.net](mailto:mderrick@whitecounty.net) Marsha will forward messages to our work group.

Thanks again for your assistance in this process.

David L. Murphy, Jr. GA-PCEM  
Director of Public Safety  
White County Government  
1241 Helen Hwy Ste 100  
Cleveland, GA 30528

706-865-9500

## David Murphy

---

**From:** David Murphy  
**Sent:** Friday, April 30, 2021, 11:34 AM  
**To:** [billjohnson717@gmail.com](mailto:billjohnson717@gmail.com); Dean Dyer ([wrwh@windstream.net](mailto:wrwh@windstream.net)); Debbie Gilbert ([press@whitecountynews.net](mailto:press@whitecountynews.net)); Linda Erbele ([reporter@whitecountynews.net](mailto:reporter@whitecountynews.net)); NOW Habersham ([joy@nowhabersham.com](mailto:joy@nowhabersham.com)); NOW Habersham ([news@nowhabersham.com](mailto:news@nowhabersham.com)); Rob Moore ([robmoore2011@hotmail.com](mailto:robmoore2011@hotmail.com)); Wayne Hardy ([publisher@whitecountynews.net](mailto:publisher@whitecountynews.net))  
**Cc:** Cami Downey; Laverne Higdon; Leah Sullens; Leah Torregiano; Marsha Derrick; Michael LeFevre; Seth Weaver; Sherrill Dockery; Terry Sosebee  
**Subject:** Media Press Release -- Hazard Mitigation Plan  
**Attachments:** HMP Update Press Release\_04292021.pdf; WC Hazard Mitigation Plan Update\_2020\_Rev2021-4\_DRAFT.pdf

All media partners, please run weekly until May 18<sup>th</sup>. - - - -

David L. Murphy, Jr. GA-PCEM  
Director of Public Safety  
White County Government  
1241 Helen Hwy Ste 100  
Cleveland, GA 30528

706-865-9500



## NEWS RELEASE

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**For Immediate Release**

**Contact:** David Murphy (706) 865-9500

April 29, 2021

### **White County Emergency Management Seek Public Input**

The White County Emergency Management Agency is updating the County Hazard Mitigation Plan as part of White County's commitment to disaster preparedness and are asking for your thoughts and suggestions. A public review will be held on May 18, 2021, at 4PM and 6PM in the Board of Commissioners meeting room located at 1235 Helen Hwy, Cleveland.

The public may review the final draft and provide comments/suggestions to staff in person on May 18th or by reviewing a copy on our website. Your input is very important. You may obtain a copy of this document at the White County Public Safety Office located at 1241 Helen Hwy, Ste 100, Cleveland, or find a digital copy online at [www.whitecounty.net](http://www.whitecounty.net)

For more information, you may call 706-865-9500.

# Officials seek public input sought on county's hazard mitigation plan

The White County Emergency Management Agency is updating the County Hazard Mitigation Plan as part of White County's commitment to disaster preparedness and is asking the public

for thoughts and suggestions. A public review will be held May 18 at 4 p.m. and 6 p.m. in the Board of Commissioners meeting room at 1235 Helen Highway in Cleveland.

The public may review the final draft and provide comments/suggestions to staff in person on May 18 or by reviewing a copy on the website. A copy of the document may be obtained at the

White County Public Safety Office at 1241 Helen Highway, Suite 100, in Cleveland, or find a digital copy online at [www.whitecounty.net](http://www.whitecounty.net).

For more information, call 706-865-9500.

## White County Emergency Management seeks public input

The White County Emergency Management Agency is updating the County Hazard Mitigation Plan as part of White County's commitment to disaster preparedness and is asking the public for thoughts and suggestions. A public review will be held

May 18 at 4 p.m. and 6 p.m. in the Board of Commissioners meeting room at 1235 Helen Highway in Cleveland.

The public may review the final draft and provide comments/suggestions to staff in person on May 18 or by reviewing a copy on

the website. A copy of the document may be obtained at the White County Public Safety Office at 1241 Helen Highway, Suite 100, in Cleveland, or find a digital copy online at [ws.vw.white-county.net](https://www.white-county.net).

For more information, call 706-865-9500.

## **EMERGENCY MANAGEMENT SEEK PUBLIC INPUT ON HAZARD MITIGATION PLAN**

Posted by Dean Dyer | May 7, 2021, | Area News | 0

(Cleveland)-The White County

Emergency

Management

is

updating

the

County's Hazard

Mitigation Plan as part of White County's

commitment to disaster preparedness and is asking

for citizens' thoughts and suggestions. A public

<https://www.wrwh.com/emergency-management-seek-public-input-on-hazard-mitigation...> 5/10/2021

review will be held on May 18, at 4 PM and 6 PM in the Board of Commissioners meeting room at 1235 Helen Highway, Cleveland.

White County Public Safety Director David Murphy said the public may review the final draft and provide comments/suggestions to staff in person on May 18th or by reviewing a copy on the county's website. Your input is very important.

You may obtain a copy of the document at the White County Public Safety Office located at 1241 Helen Hwy, Suite 100, Cleveland, or find a digital copy is available online at [www.whitecounty.net](http://www.whitecounty.net) For more information, you may call 706-865-9500.

Views: 709

<https://www.wrwh.com/emergency-management-seek-public-input-on-hazard-mitigation-p...> 5/10/2021

## **CITIZEN REVIEW EMAILS & SURVEY INFORMATION:**

### **David Murphy**

---

**From:** Wally Woods <woodswally@gmail.com>  
**Sent:** Wednesday, May 26, 2021 9:23 PM  
**To:** David Murphy  
**Cc:** Travis Turner; Edwin Nix; Cami Downey  
**Subject:** Re: Hazard Mitigation Plan Review

Good Evening,

Thank you for the opportunity to review the County Hazard Mitigation Plan. I was just able to finish my review of the document. During my 38 year tenure with the State of Georgia, I read many documents similar to this one, however, I can say without exaggeration that this plan is by far one of the best. My hat is off to everyone associated with the preparation of the plan.

My only recommendations for your consideration are the following:

- Wildfire Mitigation Strategy- strongly consider a county debris site for residents to haul woody debris on a year long basis. This will help eliminate hazardous fuel being left on properties too small to burn. Every property owner has debris so having a designated haul off location could positively impact the fire hazards in populated areas of the county. Further, the County may consider using a tub grinder to grind these materials periodically and charge a nominal fee for the public to purchase the wood chips for compost, landscaping, etc. Otherwise, the material may be used on all government properties for the same purposes.
- Dam Failure/R&M- Having worked with DNR my entire career, we managed a great number of dams. Two common issues which arose every year were: failure to test the valves for proper operation and failure to maintain the dam from vegetation growth. Also, it is extremely important to use divers to inspect the underwater components of dams to ensure that valve controls are not in a state of severe rust to a point where they may snap off under pressure.
- The graphics contained in this plan are excellent. I would suggest reducing the number of graphics somewhat. Also, verify that all graphics and statistical data are current.
- Training- Training with outside agencies for the very scenarios outlined in the plan is of utmost importance. Regardless of the resources coming to bear on any event, the lack of training with those agencies with whom you plan to work is a must. This allows for all agencies to get to know who they are working alongside and the resources they bring to the event, as well as to what proficiency is available. Not training further complicates already complex operations and it certainly can compromise the safety of first responders on all levels.

Again, congratulations on a very well thought out plan. Thank you again for the opportunity.

Wally Woods  
Ga DNR Assistant Director/Chief of Law Enforcement (retired)

On Mon, May 17, 2021 at 8:10 AM David Murphy <dmurphy@whitecounty.net> wrote:  
Mr. Woods,

Thank you for reviewing our Hazard Mitigation Plan. Outdoor warning capabilities are part of our mitigation strategy and our typically funded through federal grant process. Over the last several years outdoor warning devices has received less funding, while the focus has been primarily on emergency power generation.

White County has a plan for outdoor warning systems, and we will look into a potential site for your



## HAZARD MITIGATION PLAN PUBLIC HEARINGS HELD TUESDAY

Posted by Dean Dyer | May 19, 2021, | Area News

(Cleveland)- Two public hearings were held Tuesday on the updating of White County's Hazard Mitigation Plan. Public Safety Director David Murphy said the county updates this plan every five years to establish a vision and guidance for reducing hazard risks along with proposing specific actions to eliminate or reduce certain vulnerabilities.

Their number one goal is to protect life and property.

Murphy in his public presentation said they have at least three primary goals (1) enhance the mitigation strategy, (2) improve plan maintenance procedures and, (3) conduct widespread public outreach and stakeholder involvement. As part of the mitigation

strategies Murphy said they want to purchase and install weather monitoring stations, purchase and install NOAA Weather Radios in schools, daycares, recreation facilities, nursing homes, and public buildings.

He also said they want to purchase generators for critical facilities in the county.

After they complete the plan Murphy said, it must be review by state and federal officials before the county and the cities of Helen and Cleveland can adopt it.

👁 Views: 171



White County Public Safety Director David Murphy presents the County's Hazard Mitigation Plan at a public hearing

## **PEER REVIEW EMAILS:**

### **David Murphy**

---

**From:** David Murphy  
**Sent:** Wednesday, April 21, 2021 2:01 PM  
**To:** Lorraine Morris; Union Co EMA David Dyer; Lynn R. Smith; Director Casey Ramsey; 911@townscountyga.com; Mark (Mark.Palen@dph.ga.gov) Palen (Mark.Palen@dph.ga.gov); Don Strength (donald.strength@gema.ga.gov) (donald.strength@gema.ga.gov); david.shanks@gema.ga.gov; Jonathan Jones (Jonathan.Jones@gema.ga.gov); Scott Justus; Laurie Burkett; beth@whitecountychamber.org; Kevin Benson (kbenson@cpa4schools.com); Riemann, Mike J.; Marc Turner (marc@thecwconline.org); Rick; Graffagnino, Jason; Alan Sykes; Charles Dewalt; Aaron Cosson(gm@skylakepoa.org)  
**Subject:** White County HMP Draft  
**Attachments:** WC Hazard Mitigation Plan Update\_2020\_Rev2021-4\_DRAFT.pdf

To our neighboring communities, agencies, and other interested parties:

White County, along with the City of Cleveland and the City of Helen, has completed a draft update to the White County Hazard Mitigation Plan over the past several months which is now being reviewed by GEMA. We would like to provide an opportunity for neighboring communities, agencies and other interested parties to be involved in our planning process. Therefore, we are requesting that you please review the draft update attached to this email and provide us with any feedback you may have within the next 15 days. Any help you can provide will be greatly appreciated. Please feel free to forward this information to other parties that may also have an interest in reviewing this update. If you have any questions or concerns, please contact White County Emergency Management by responding to this email or via the contact information below. Thank you in advance for your time and help!

David L. Murphy, Jr. GA-PCEM  
Director of Public Safety  
White County Government  
1241 Helen Hwy Ste 100  
Cleveland, GA 30528

706-865-9500

**EMAIL SENT TO PEER REVIEW GROUP**

PEER REVIEW EMAIL FROM CINDY KING – WC Public Health

Response from  
Public Health

**David Murphy**

---

**From:** David Murphy  
**Sent:** Monday, May 10, 2021 3:59 PM  
**To:** King, Cindy; Marsha Derrick  
**Subject:** RE: Media Press Release -- Hazard Mitigation Plan

Thank you. We will review and make recommended changes.

David L. Murphy, Jr. GA-PCEM  
Director of Public Safety  
White County Government  
1241 Helen Hwy Ste 100  
Cleveland, GA 30528

706-865-9500

---

**From:** King, Cindy <Cindy.King@dph.ga.gov>  
**Sent:** Monday, May 10, 2021 3:58 PM  
**To:** David Murphy <dmurphy@whitecounty.net>; Marsha Derrick <mderrick@whitecounty.net>  
**Subject:** RE: Media Press Release -- Hazard Mitigation Plan

David & Marsha,  
Very detailed reporting.....all I see is just needs updated Dept head name changes.....  
Cindy

RE: White County HMP Draft



Lynn R. Smith <lsmith@habershamga.com>

To David Murphy

You replied to this message on 5/20/2021 12:09 PM.

Reviewed to the best of my ability. That's a lot of reading.

**Lynn Smith** | Director | GA-PEM | RPL | CPE  
Habersham County E-911 | Emergency Management  
175 EOC Drive | Cornelia, Georgia 30531  
(706) 778-3911 | (706) 776-1066 (fax) | (706) 968-1403



**The Best Way To Predict The Future Is To Create It!**

HABERSHAM CO REVIEW

RE: White County HMP Draft



Lorraine Morris <Lorraine.Morris@LumpkinCounty.GOV>

To David Murphy

Cc David Wimpy

You replied to this message on 5/24/2021 7:51 AM.

David,

Thank you for the opportunity to review your Hazard Mitigation Plan for White County, I am impressed with the level of details and document inclusion along with the format of your project tables/charts. I would offer no changes or additions to the plan. Lumpkin County EMA accepts/acknowledges this plan for White County. Thank you for your dedication to the citizens of White County.

Respectfully,

*Lorraine Morris*

Deputy Director, LCEMA

LUMPKIN CO REVIEW

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**White County Board of Commissioner's Regular Meeting-**

*Excerpt from the Minutes of March 26, 2018*

March 26, 2018 – Work Session & Called Meeting Minutes

Mr. Murphy presented a grant award for consideration of acceptance. The grant was for the Hazard Mitigation Plan Update which is required to occur every five (5) years. He explained that the grant was \$12,000.00 (federal \$9,000.00, state \$1,200.00, and local \$1,800.00).

Upon a motion made by Commissioner Bryant, seconded by Commissioner Goodger there was a unanimous vote to accept the Hazard Mitigation Grant in the amount \$12,000.00.

**Note- No public comment was received and recorded at this meeting.**

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**Sign In Sheets- Sub-Committee Meetings**

WHITE COUNTY			
Name	Organization	Phone	Email
Jody Prickett	Helen Fire		Jprickett@cityofhelen.org
Jeff Shoemaker	CLEVELAND PALM		Jshoemaker@cityofclevelandga.org
David Murphy	WE EMA		dmurphy@whitecounty.net
Cami Downey	WE EMA		cdowney@whitecounty.net

WHITE COUNTY			
Name	Organization	Phone	Email
KEO RAYNE	WHITE COUNTY	706-569-1760	krayne@whitecounty.net
John Sell	"	706-809-9312	jsell@whitecounty.net
DAVE ANGENI	"	706-809-4399	dangeni@whitecounty.net
JOHN ERIZEL	Historical Society	706-878-0726	erbele@windstream.net
DAVID MURPHY	WE EMA		dmurphy@we.net
Cami Downey	WE EMA		cdowney@whitecounty.net
DARRELL WESTWATERARD	City of Helen	706-878-2732	dwestwaterard@cityofhelen.org



## **Letter Placed on White County's Website, Along With Draft of the Plan**

May 2021

To The Citizens of White County:

It is the responsibility and the commitment of White County EMA, White County Board of Commissioners and the City Councils of Cleveland and Helen to reduce the risks from both natural and technological hazards. The White County Pre-Disaster Mitigation Plan is a concerted effort from all local agencies to provide a blueprint for all governing bodies in coordinating and implementing hazard mitigation policies, programs, and projects.

Through the identification of vulnerable areas and the implementation of measures aimed at minimizing exposure, the negative impacts of both natural and man-made hazards can be greatly reduced. Through the preparation and implementation of a comprehensive mitigation strategy, we can better protect our citizens and visitors to White County.

White County and the Cities of Cleveland and Helen are dedicated to involving the public directly in this process. We have placed the current draft of the Pre-Disaster Mitigation Plan on this website so that it may be reviewed and commented on. If you have any comments or questions, please feel free to contact the White County Emergency Management Office at (706) 865-9500 or you may email us at [mderrick@whitecounty.net](mailto:mderrick@whitecounty.net). The Plan is a work-in-progress and changes to format, and content can be expected.

We invite you to become part of this process. Our review period will be open until June 15, 2021. Once this plan is completed, it will be forwarded to Georgia Emergency Management Agency for review and approval and then to the Federal Emergency Management Agency to complete this process. Once approval has been received, the White County Board of Commissioners and the City Councils of Cleveland and Helen will consider its formal adoption.

We hope that you will become part of our efforts to make this a safer White County.

Sincerely,

David L. Murphy, Jr.  
Director

# Agenda- Public Meeting – May 18, 2021

OFFICE OF PUBLIC SAFETY  
WHITE COUNTY GOVERNMENT

JASON L. COBB  
COUNTY MANAGER



DAVID L. MURPHY, JR.  
DIRECTOR

PUBLIC MEETING  
HAZARD MITIGATION PLAN  
MAY 18, 2021  
4PM & 6PM  
AGENDA

---

- |                             |            |
|-----------------------------|------------|
| 1. SIGN-IN REGISTRATION     | C DOWNEY   |
| 2. WELCOME                  | DIR MURPHY |
| 3. HAZARD MITIGATION PLAN   | DIR MURPHY |
| 4. PUBLIC COMMENTS/QUESTION | STAFF      |
| 5. ADJOURN                  |            |

1241 Helen Hwy • Ste 100 • Cleveland, Georgia 30528  
Phone (706) 865-9500 • Fax (706) 219-3084  
EMA • Fire • 9-1-1 • Animal Control

**Sign In Sheet- Public Meeting – 5/18/2021 4PM & 6PM**

Hazard Mitigation Plan Update Public Input		
Date: 05/18/2021 / 4PM		
Name	Phone	Email
DAVID Murphy		Staff
Bill Johnson		billjohnson717@gmail.com
* Kyle Obermeier		kyle_o@lk.com
Dean Raper		Info@wraeth.com
Bruce Weaver		b.s.weaver@att.net
JASON COBB		jcobb@whitecounty.net
Cami Downey		cdowney@whitecounty.net

### Hazard Mitigation Plan Update Public Input

Date: 05/18/2021 / 6PM

Name	Phone	Email
David Murphy		STAFF
Cami Downey		staff

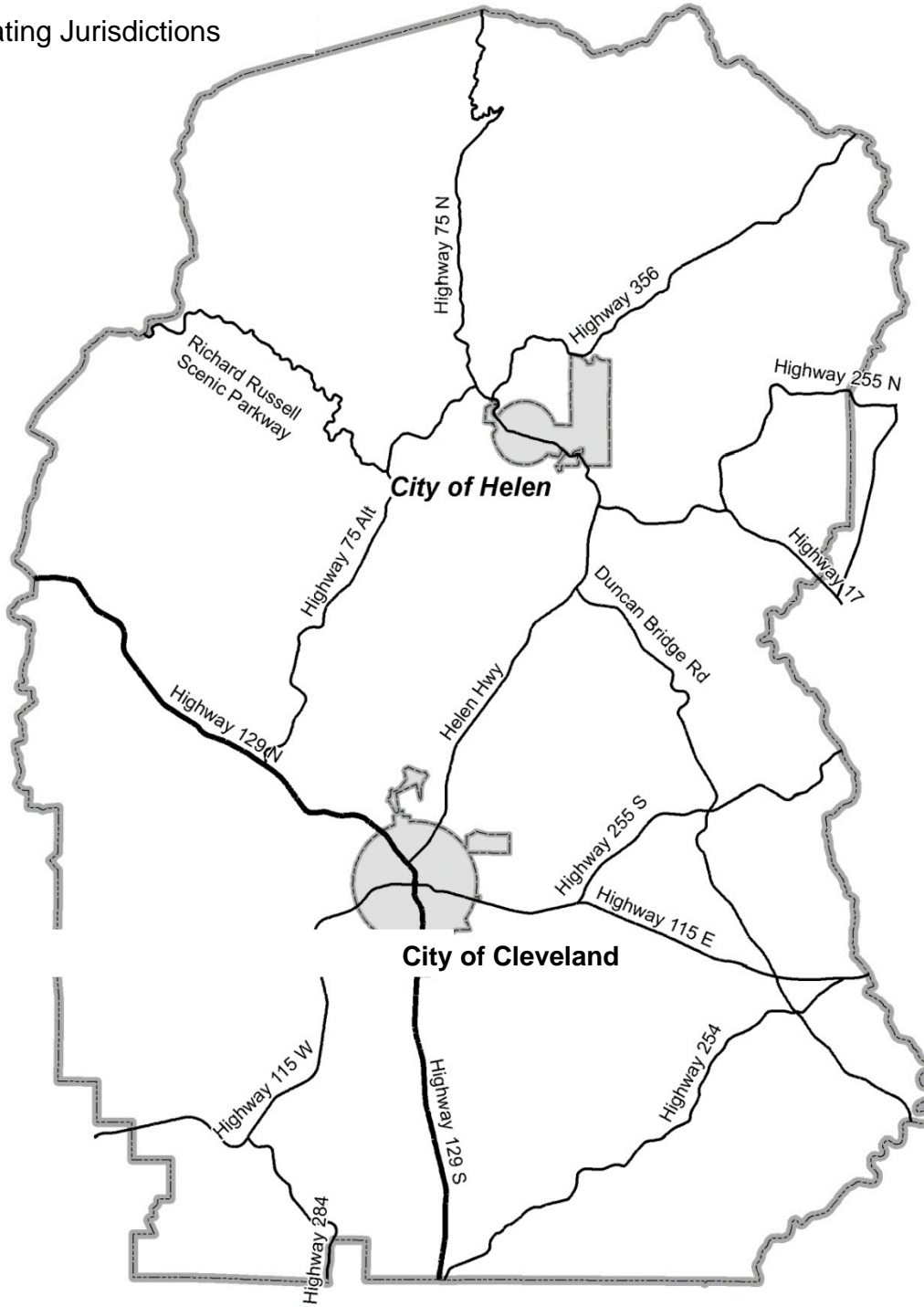
No Guests  
closed @ 1815 HRS

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**APPENDIX F**  
**MAPS**









Multi-Jurisdictional Hazard  
Mitigation Plan:

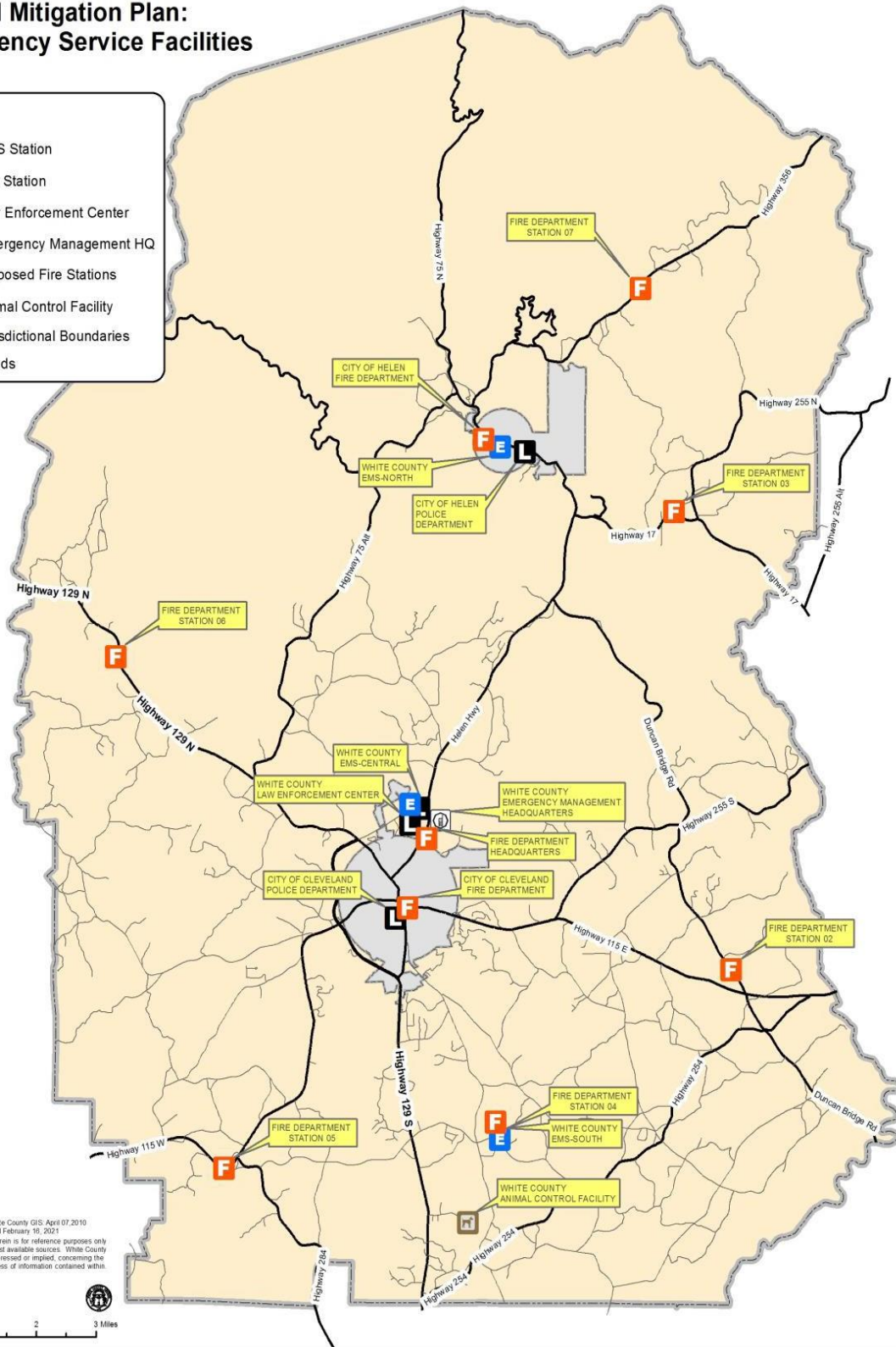
Participating Jurisdictions



# White County, Georgia Hazard Mitigation Plan: Emergency Service Facilities

## Legend

-  EMS Station
-  Fire Station
-  Law Enforcement Center
-  Emergency Management HQ
-  Proposed Fire Stations
-  Animal Control Facility
-  Jurisdictional Boundaries
-  Roads



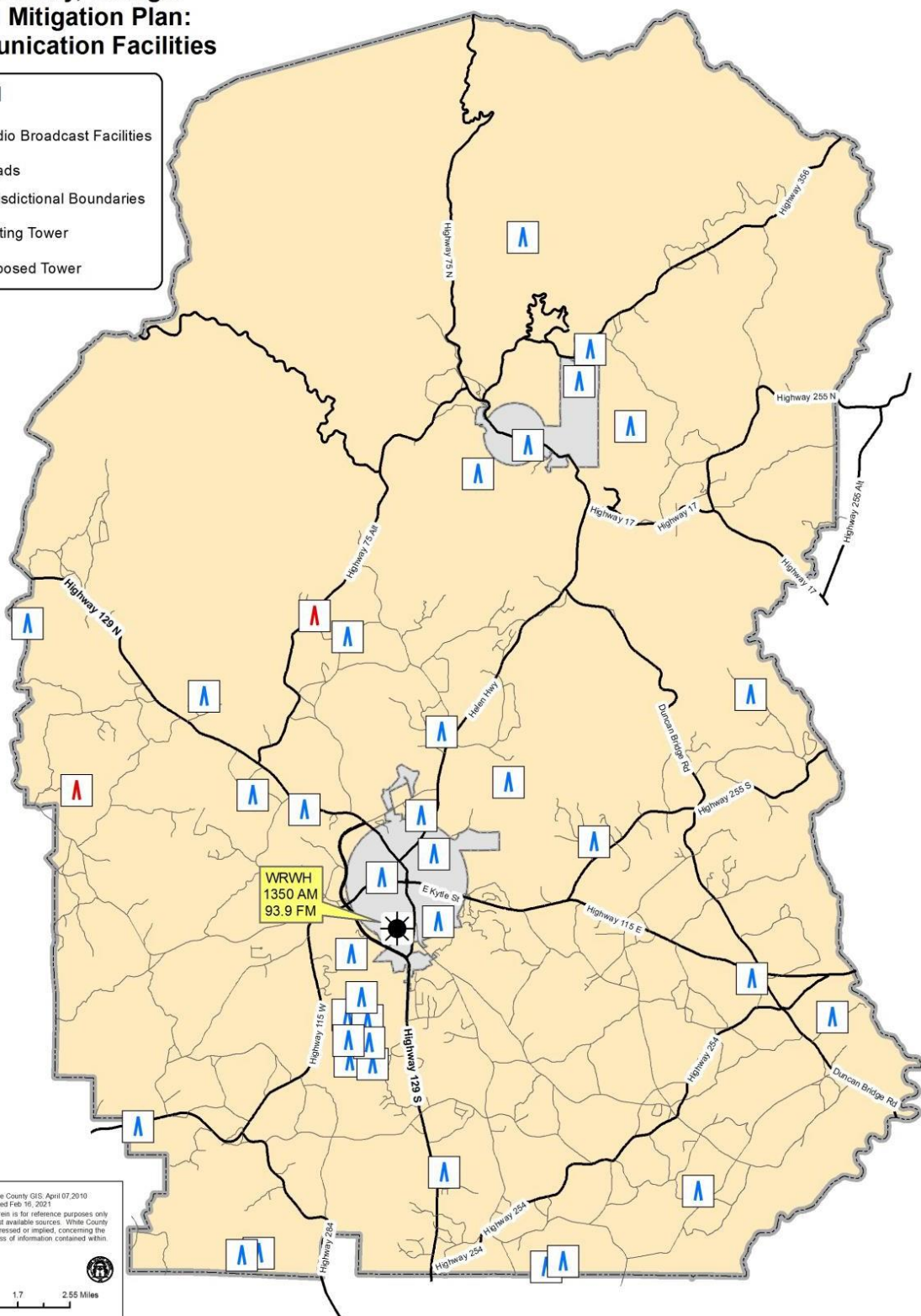
Prepared by White County GIS, April 07, 2010  
 Updated February 19, 2021  
 Information depicted herein is for reference purposes only  
 and is compiled from best available sources. White County  
 makes no warranty, expressed or implied, concerning the  
 accuracy or completeness of information contained within.



# White County, Georgia Hazard Mitigation Plan: Communication Facilities

**Legend**

-  Radio Broadcast Facilities
-  Roads
-  Jurisdictional Boundaries
-  Existing Tower
-  Proposed Tower



Prepared by White County GIS; April 07, 2010  
 Updated Feb 16, 2021  
 Information depicted herein is for reference purposes only  
 and is compiled from best available sources. White County  
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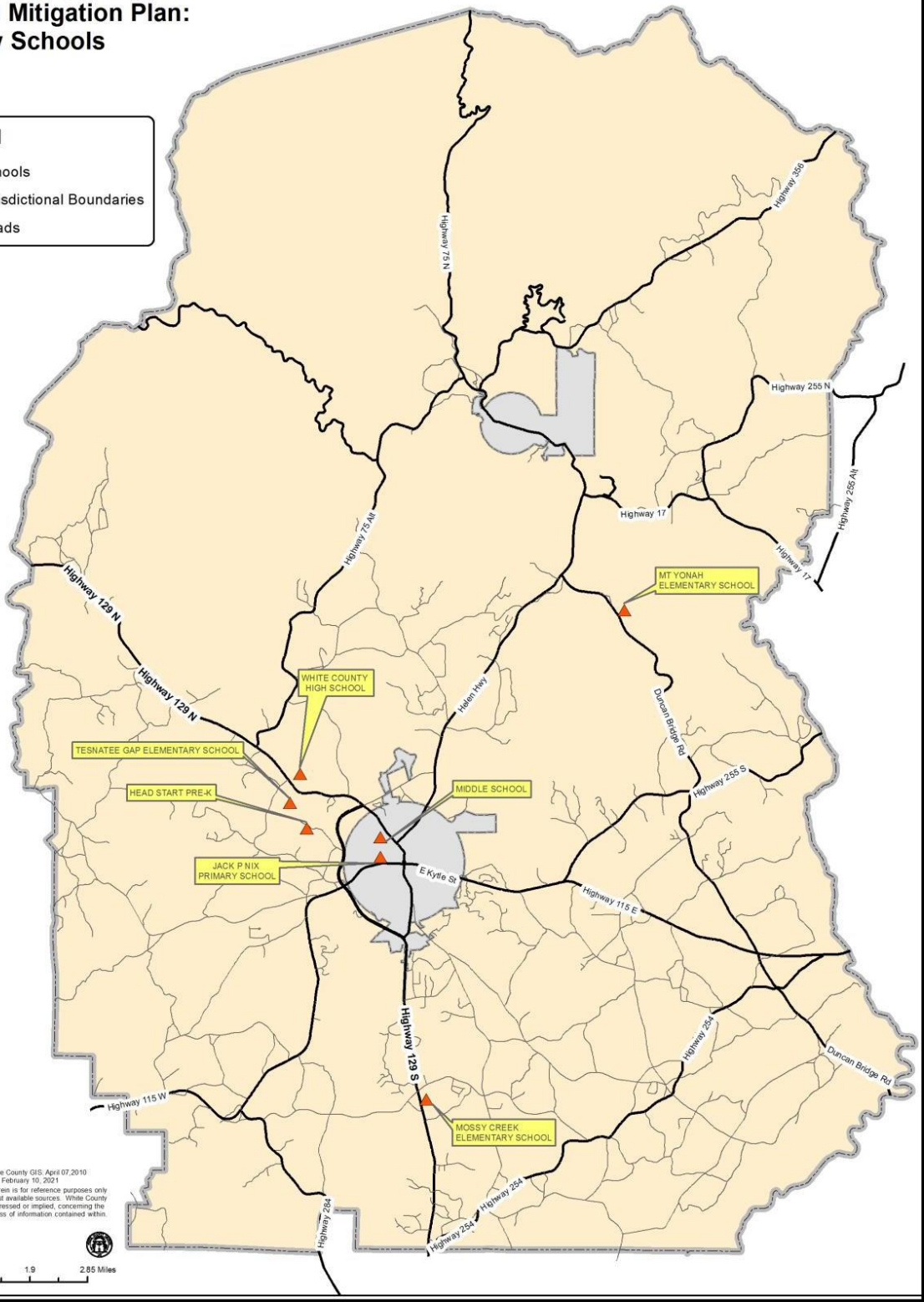
0 0.85 1.7 2.55 Miles



# White County, Georgia Hazard Mitigation Plan: County Schools

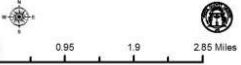
**Legend**

-  Schools
-  Jurisdictional Boundaries
-  Roads



Prepared by White County GIS: April 07, 2010  
 Updated February 10, 2021  
 Information depicted herein is for reference purposes only  
 and is compiled from best available sources. White County  
 makes no warranty, expressed or implied, concerning the  
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0 0.95 1.9 2.85 Miles

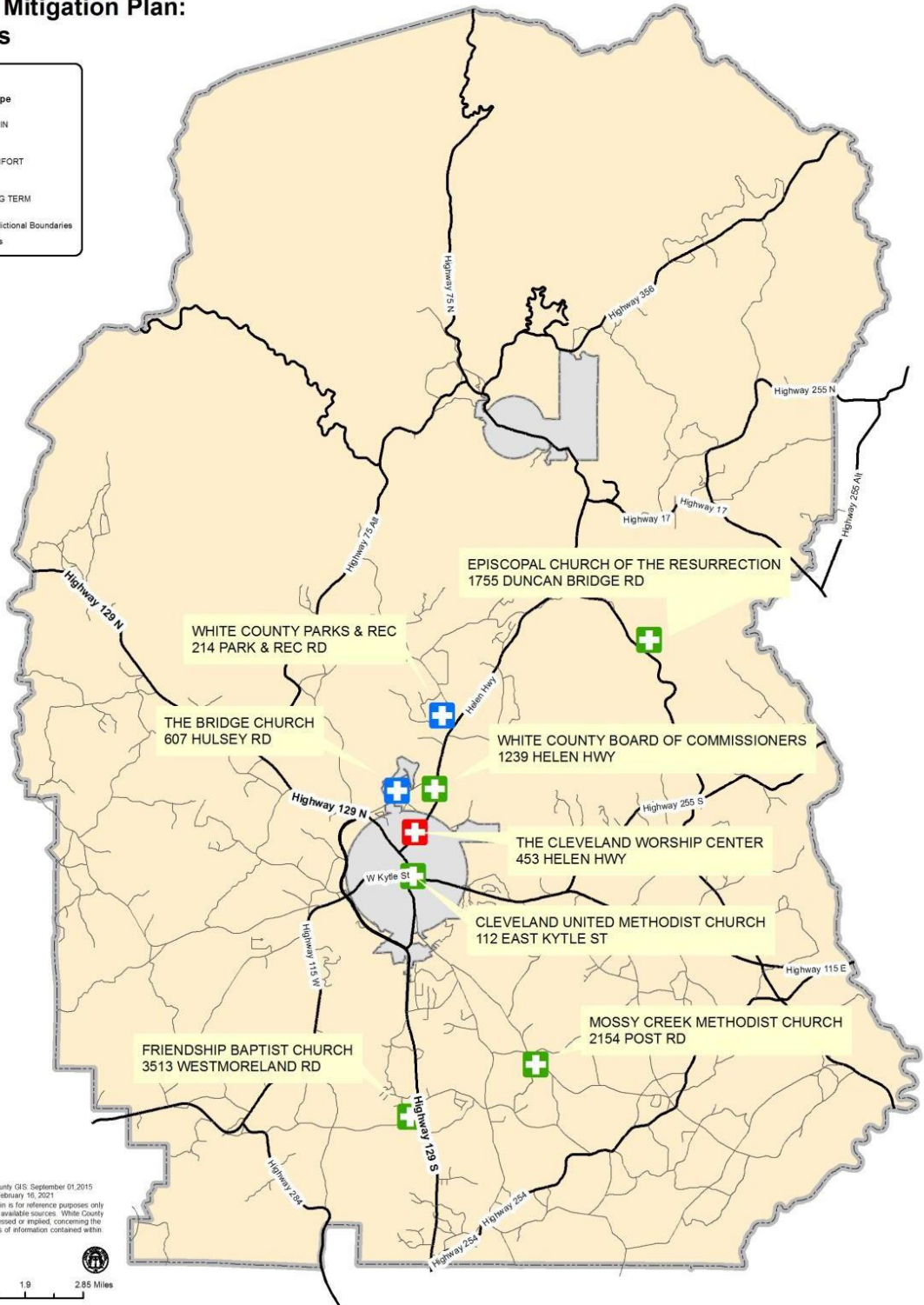


# White County, Georgia Hazard Mitigation Plan: Shelters

**Legend**

Shelter Type

-  ADMIN
-  COMFORT
-  LONG TERM
-  Jurisdictional Boundaries
-  Roads

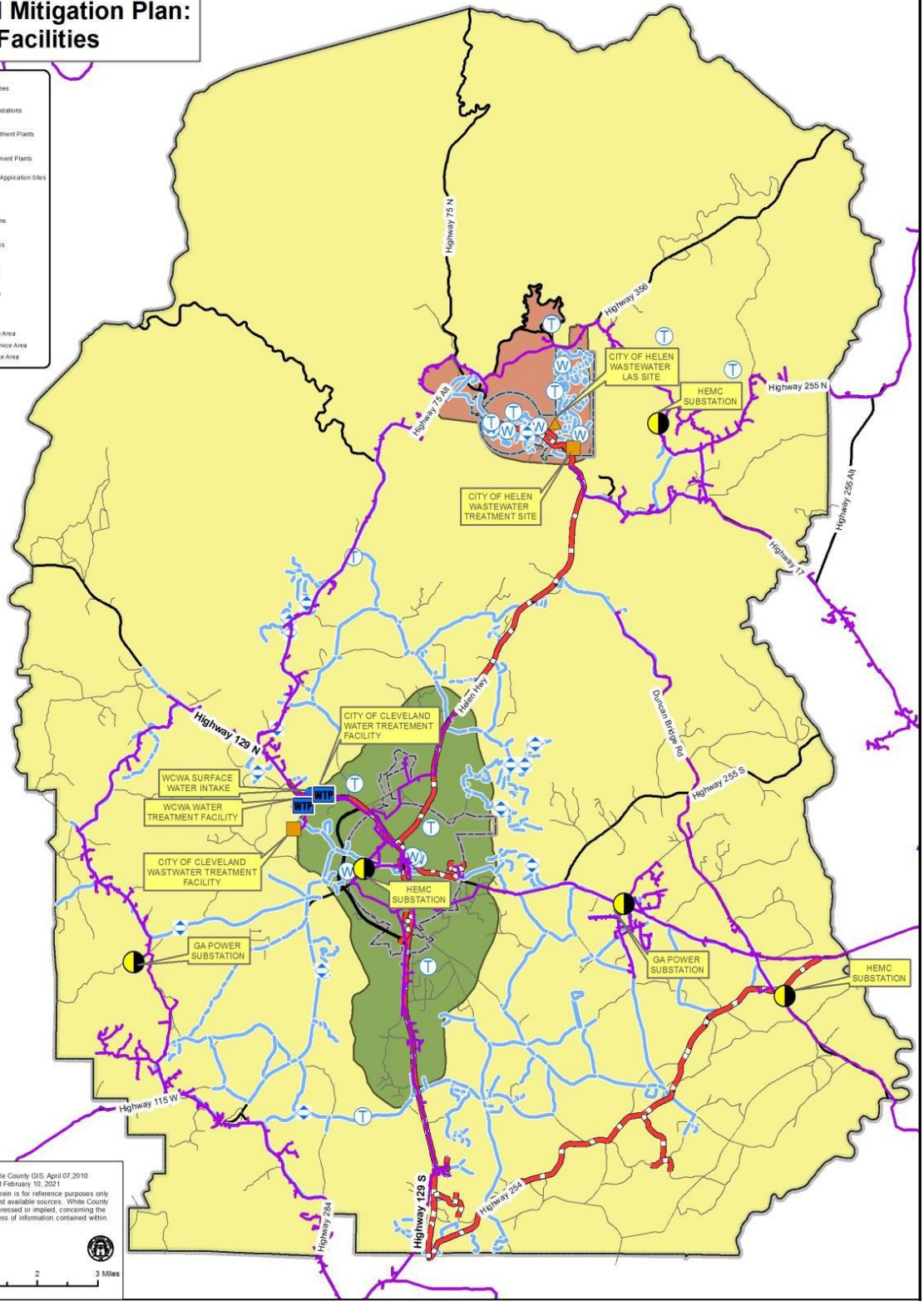


Prepared by White County GIS, September 01, 2015  
 Revised February 16, 2021  
 Information depicted herein is for reference purposes only  
 and is compiled from best available sources. White County  
 makes no warranty, expressed or implied, concerning the  
 accuracy or completeness of information contained within.

0 0.95 1.9 2.85 Miles

# White County, Georgia Hazard Mitigation Plan: Utility Facilities

- Electric Utility Facilities
- GIS DBO hemc\_substations
- Public Water Treatment Plants
- Wastewater Treatment Plants
- Wastewater Land Application Sites
- NGN FiberOptic**
- WCWA Pump Stations
- Existing Water Tanks
- Public Water Wells
- Public Water Intakes
- Gas Line
- Water Mains
- Helen Water Service Area
- Cleveland Water Service Area
- WCWA Water Service Area



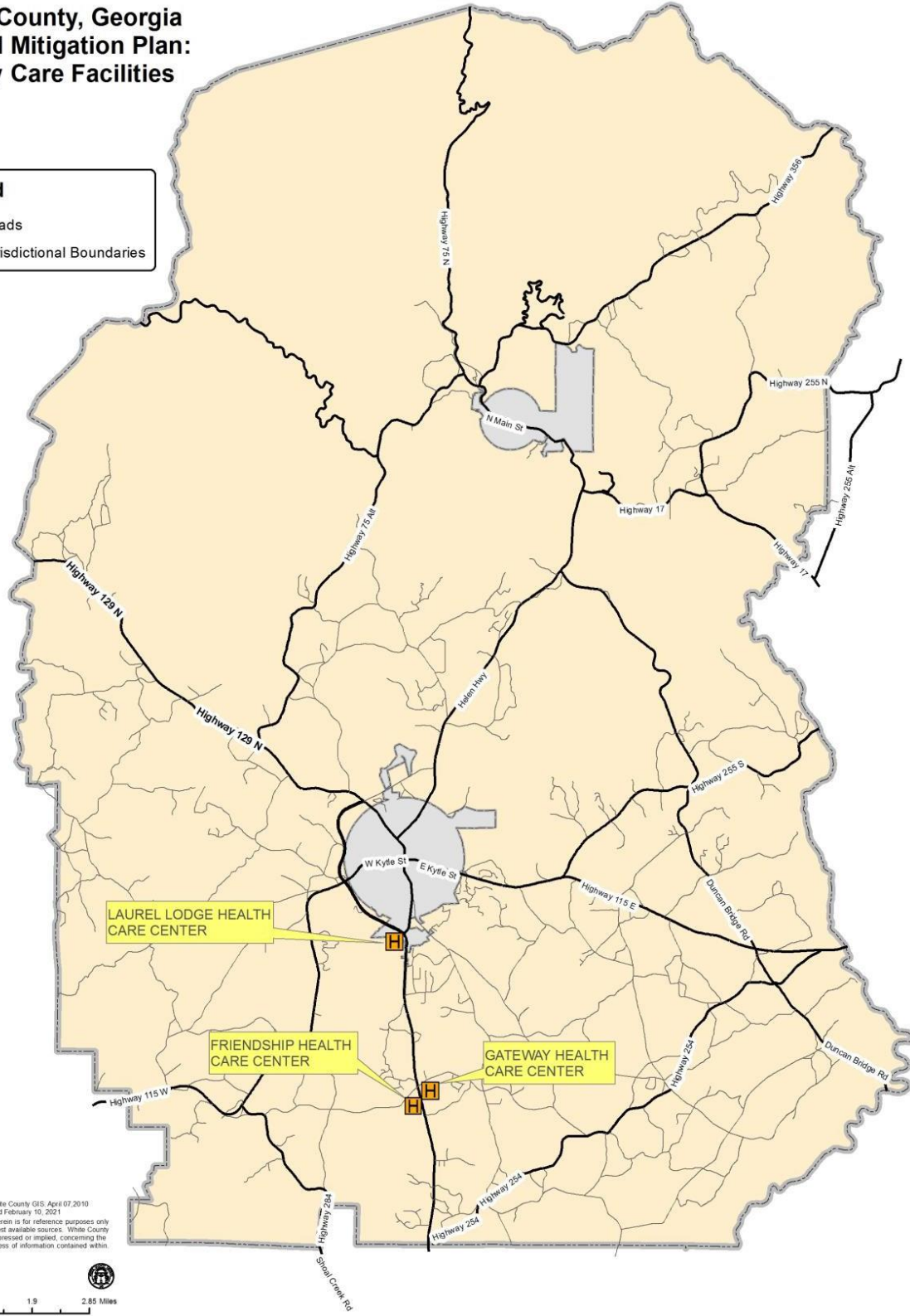
Prepared by White County GIS, April 07, 2010  
Updated February 10, 2021

Information depicted herein is for reference purposes only and is compiled from best available sources. White County makes no warranty, expressed or implied, concerning the accuracy or completeness of information contained within.

# White County, Georgia Hazard Mitigation Plan: Elderly Care Facilities

## Legend

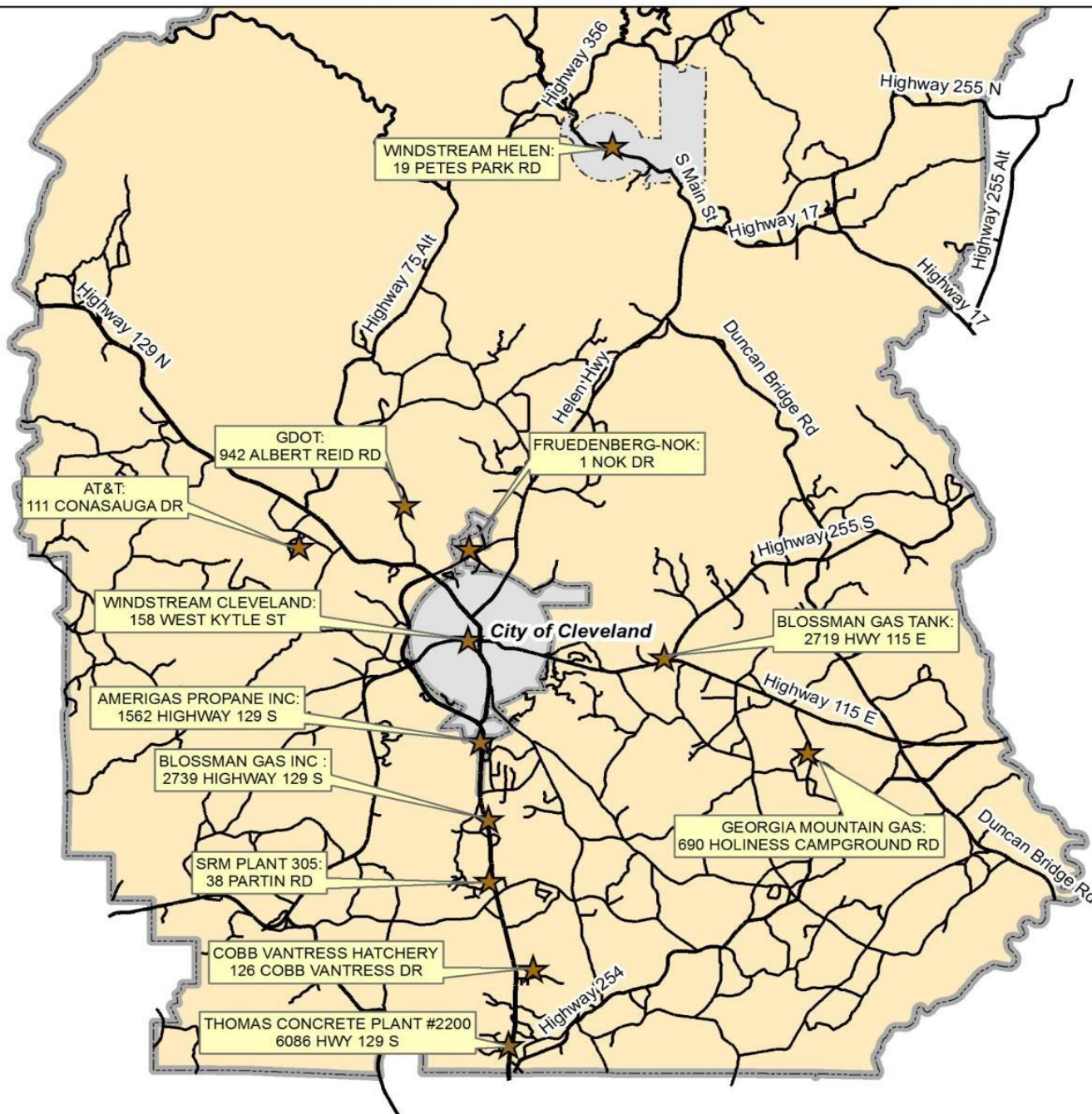
- Roads
- Jurisdictional Boundaries



Prepared by White County GIS: April 07 2010  
Updated February 10, 2021  
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# WHITE COUNTY HAZMAT FACILITIES

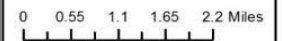
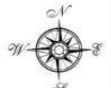


**Legend**

- ★ HAZMAT Facilities
- US Hwy
- State Hwy
- County Road
- - - City Of Helen
- City Of Cleveland
- County Boundary

Prepared by White County  
Mapping Department  
October, 07, 2008  
Revised February 16, 2021

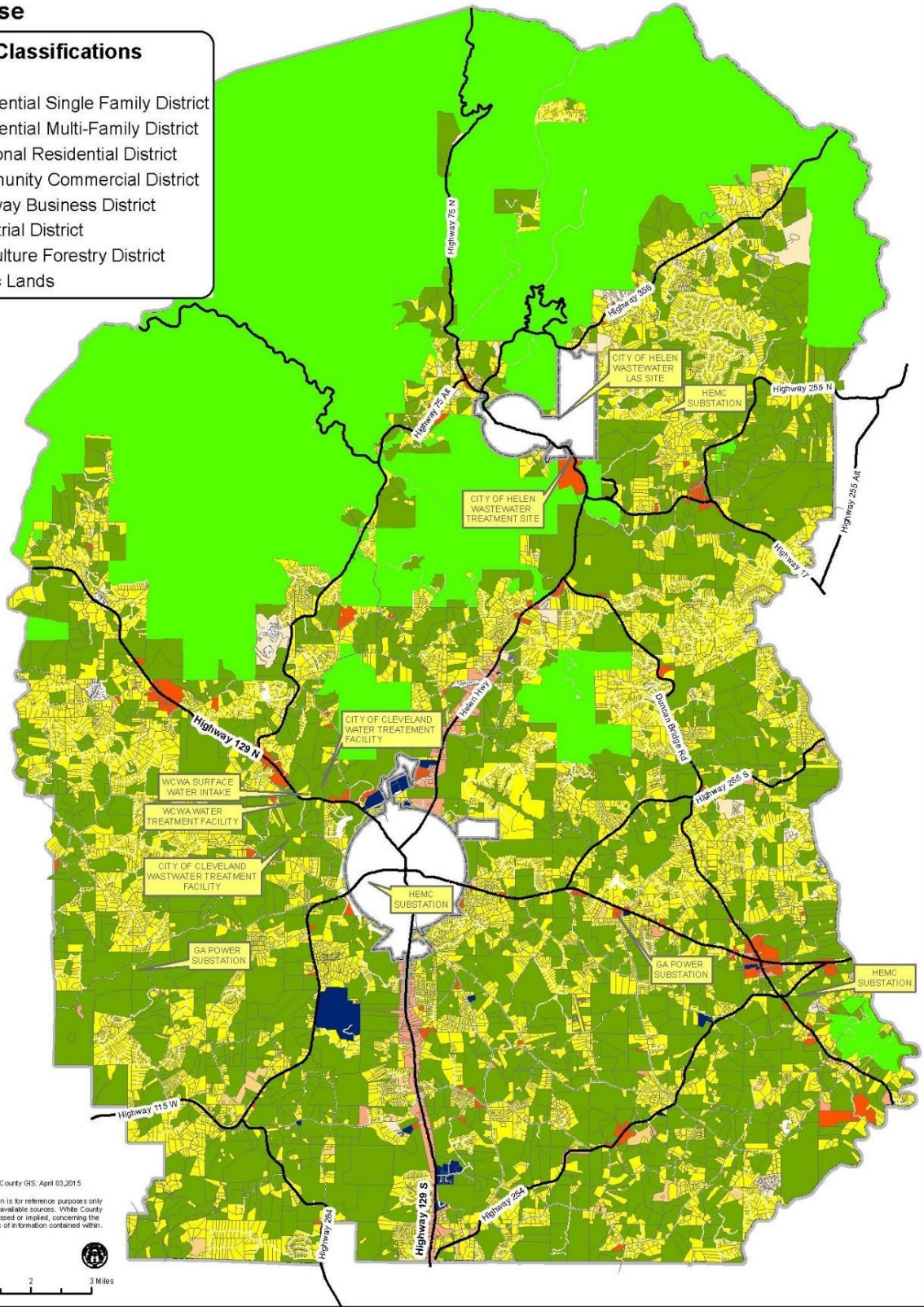
Information depicted herein is for reference purposes only and is compiled from best available sources. White County makes no warranty, expressed or implied, concerning the accuracy or completeness of information contained within.



# White County, Georgia Land Use

## Zoning Classifications

-  Residential Single Family District
-  Residential Multi-Family District
-  Seasonal Residential District
-  Community Commercial District
-  Highway Business District
-  Industrial District
-  Agriculture Forestry District
-  Public Lands

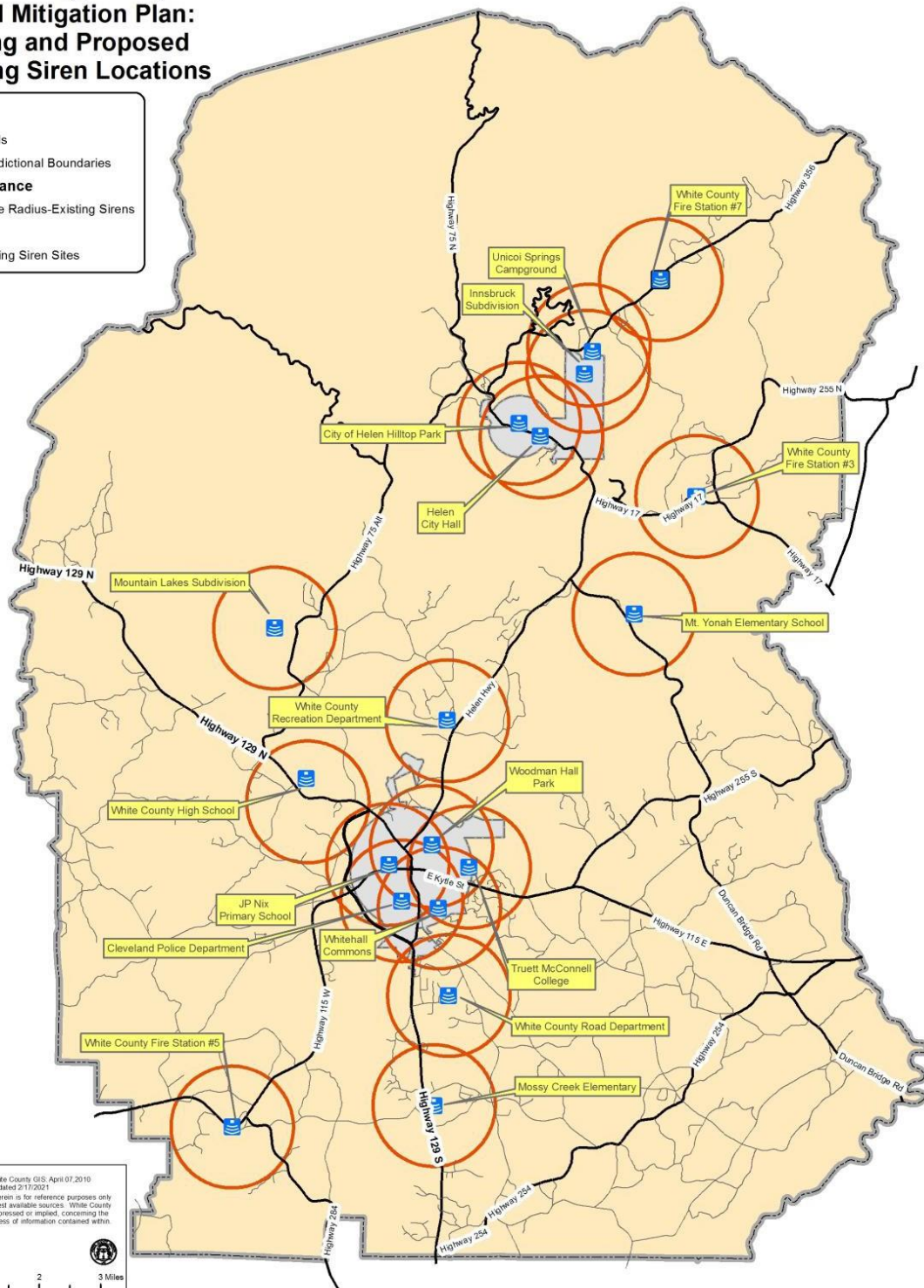


Prepared by White County GIS, April 03, 2015  
 Information depicted herein is for reference purposes only and is compiled from best available sources. White County makes no warranty, expressed or implied, concerning the accuracy or completeness of information contained within.


# White County, Georgia Hazard Mitigation Plan: Existing and Proposed Warning Siren Locations

**Legend**

-  Roads
-  Jurisdictional Boundaries
- Type, distance**
-  1 Mile Radius-Existing Sirens
- Type**
-  Existing Siren Sites



Prepared by White County GIS, April 07, 2010  
 Updated 2/17/2021  
 Information depicted herein is for reference purposes only  
 and is compiled from best available sources. White County  
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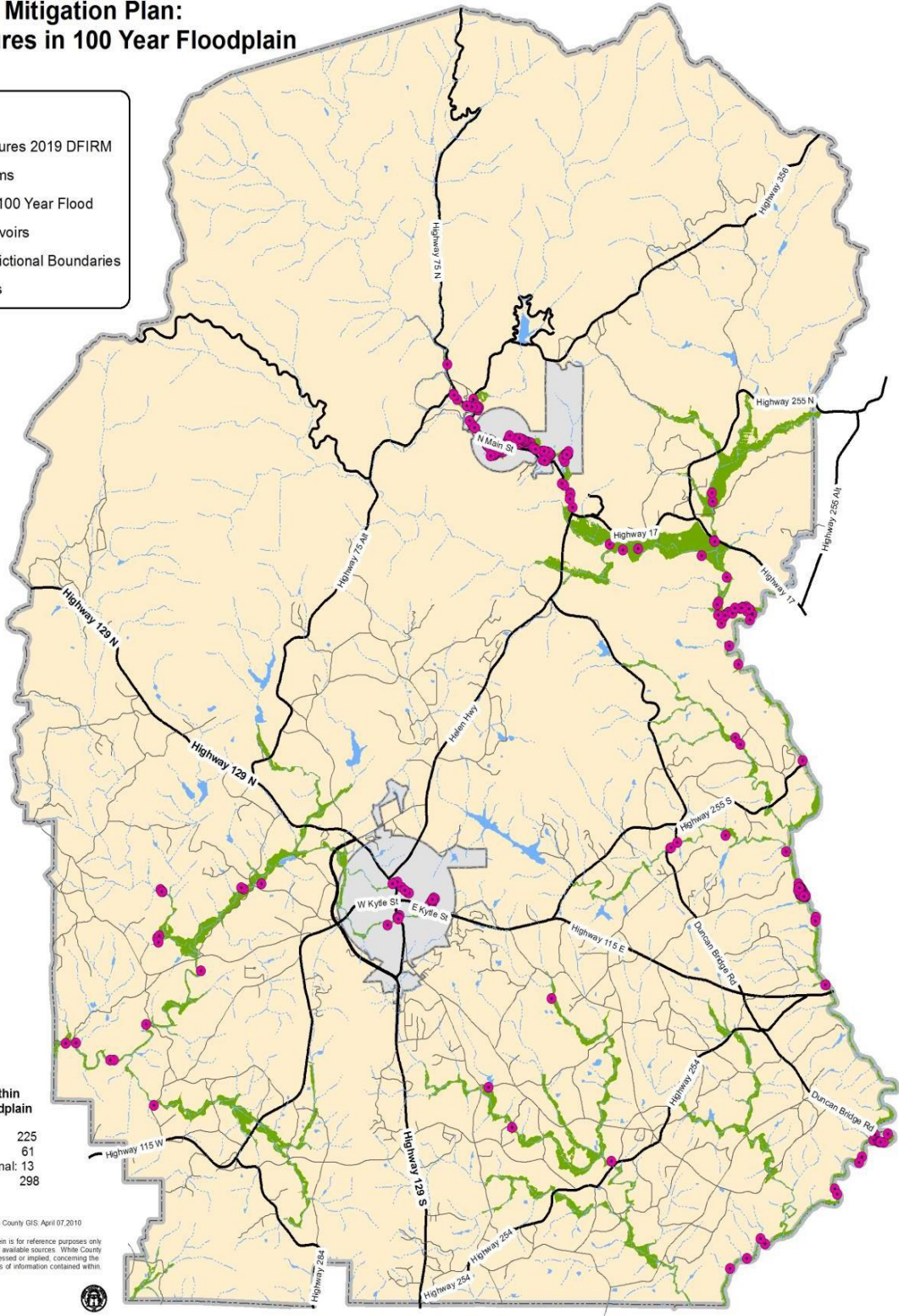
0 1 2 3 Miles



# White County, Georgia Hazard Mitigation Plan: Structures in 100 Year Floodplain

## Legend

- Structures 2019 DFIRM
- Streams
- 2019 100 Year Flood
- Reservoirs
- Jurisdictional Boundaries
- Roads



### Structres within 100 Year Floodplain

Residential:	225
Commercial:	61
Public/Institutional:	13
<b>Total:</b>	<b>298</b>

Prepared by White County GIS, April 07, 2010  
 Information depicted herein is for reference purposes only  
 and is compiled from best available sources. White County  
 makes no warranty, expressed or implied, concerning the  
 accuracy or completeness of information contained within.



Source: 2019 FEMA DFIRM

# White County, Georgia Hazard Mitigation Plan: Known Tornado Tracks

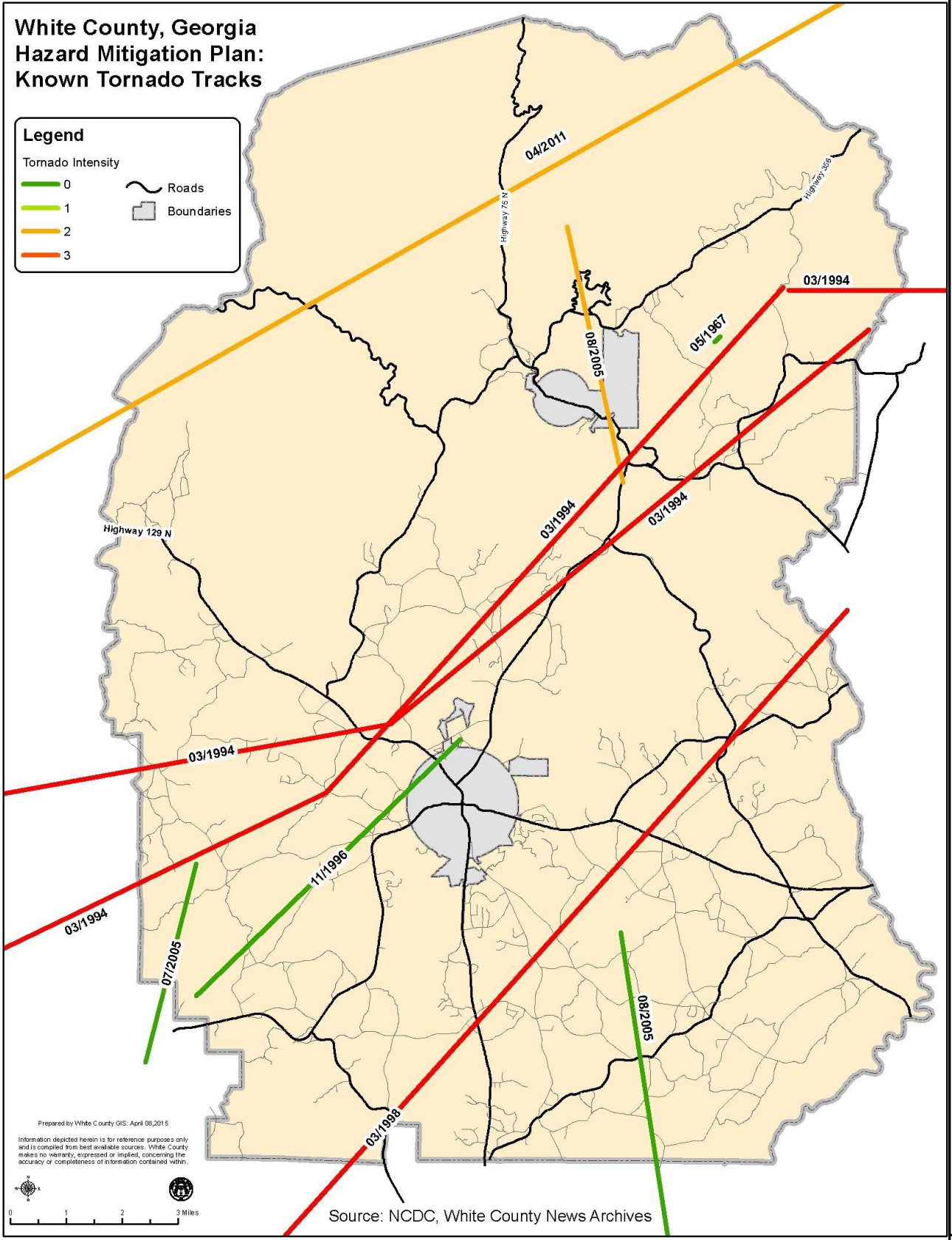
**Legend**

Tornado Intensity

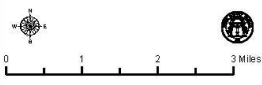
- 0
- 1
- 2
- 3

Roads

Boundaries



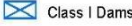
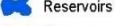
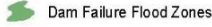

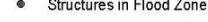


Prepared by White County GIS: April 08, 2015  
 Information depicted herein is for reference purposes only and is compiled from best available sources. White County makes no warranty, expressed or implied, concerning the accuracy or completeness of information contained within.

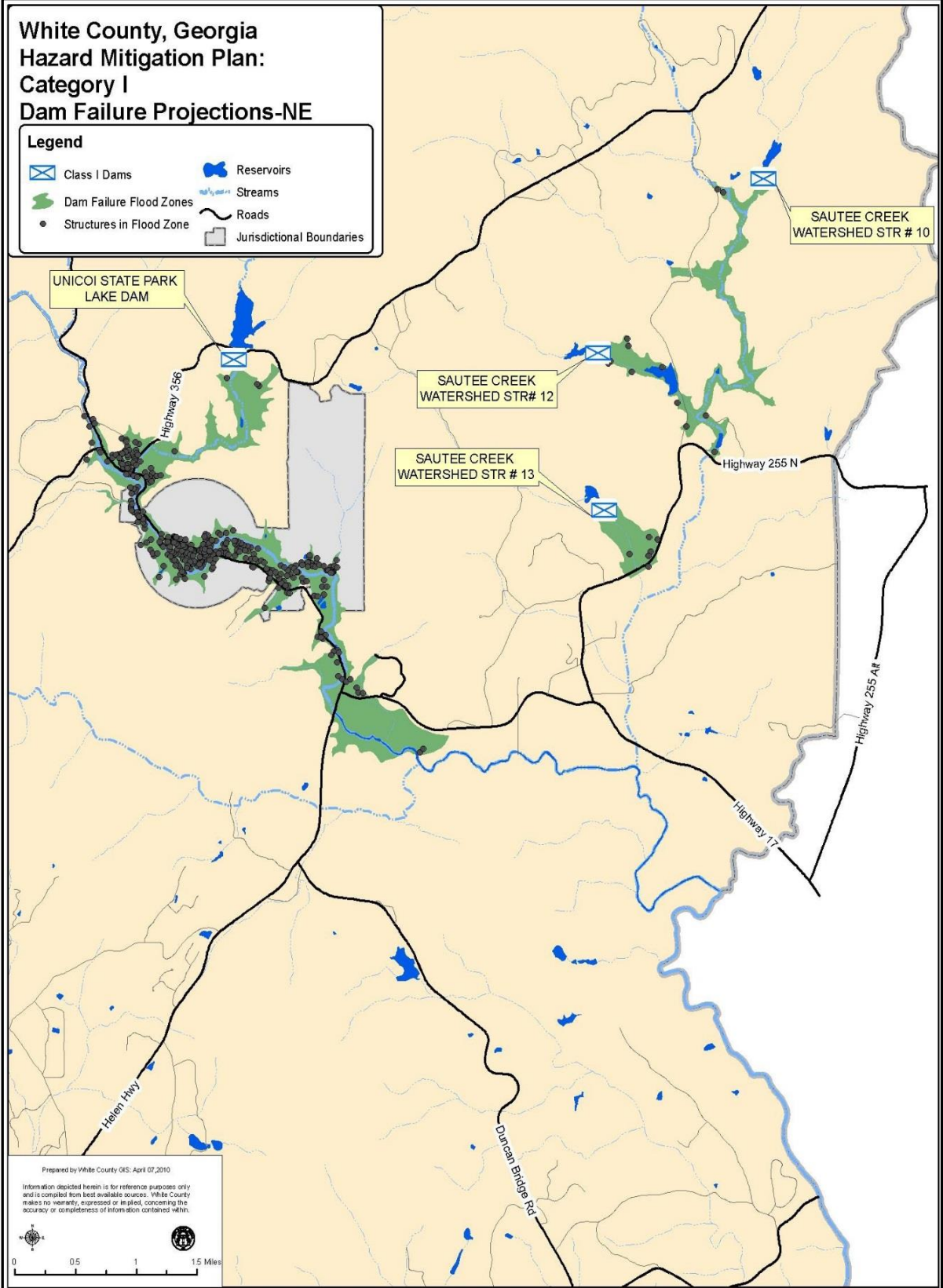


Source: NCDC, White County News Archives

# White County, Georgia Hazard Mitigation Plan: Category I Dam Failure Projections-NE

## Legend

-  Class I Dams
-  Reservoirs
-  Dam Failure Flood Zones
-  Streams
-  Roads
-  Structures in Flood Zone
-  Jurisdictional Boundaries



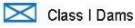
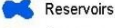
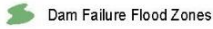

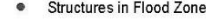


Prepared by White County GIS: April 07, 2010

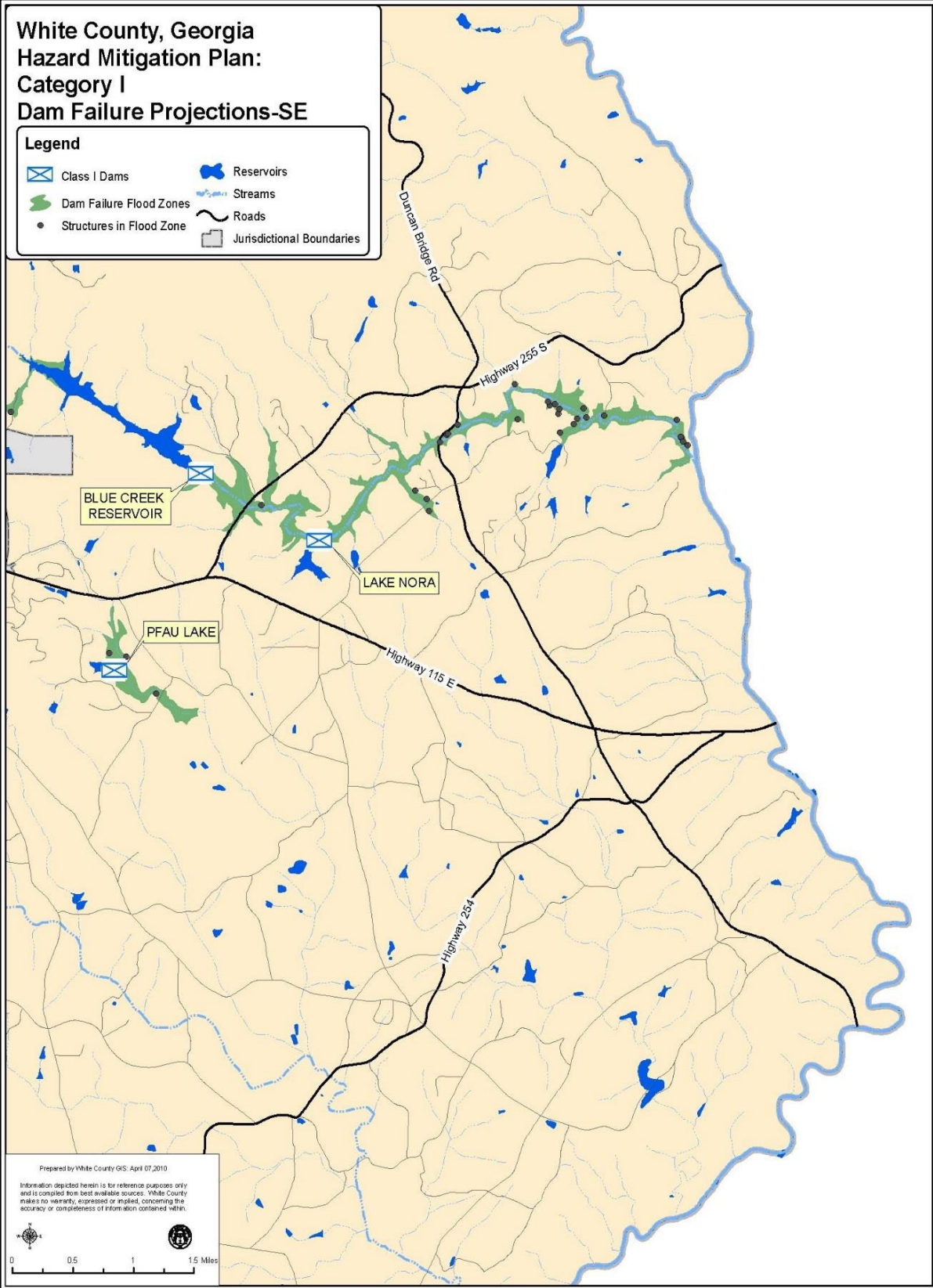
Information depicted herein is for reference purposes only and is compiled from best available sources. White County makes no warranty, expressed or implied, concerning the accuracy or completeness of information contained herein.

0 0.5 1 1.5 Miles

# White County, Georgia Hazard Mitigation Plan: Category I Dam Failure Projections-SE

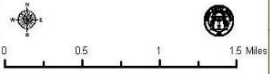
## Legend

-  Class I Dams
-  Reservoirs
-  Dam Failure Flood Zones
-  Streams
-  Structures in Flood Zone
-  Roads
-  Jurisdictional Boundaries



Prepared by White County GIS: April 07, 2010








Information depicted herein is for reference purposes only and is compiled from best available sources. White County makes no warranty, expressed or implied, concerning the accuracy or completeness of information contained within.

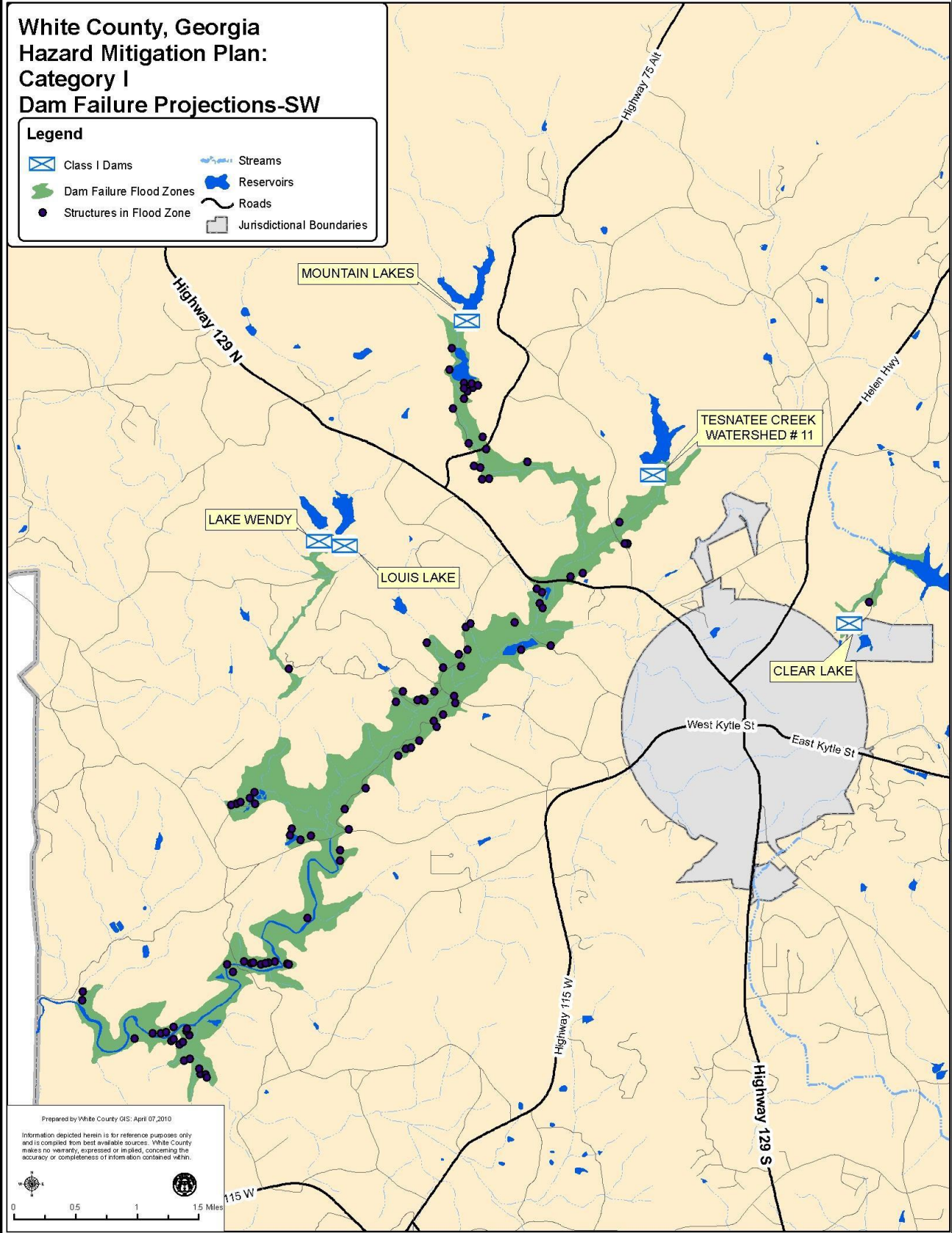


0 0.5 1 1.5 Miles

# White County, Georgia Hazard Mitigation Plan: Category I Dam Failure Projections-SW

## Legend

-  Class I Dams
-  Streams
-  Dam Failure Flood Zones
-  Reservoirs
-  Structures in Flood Zone
-  Roads
-  Jurisdictional Boundaries



Prepared by White County GIS: April 07, 2010


Information depicted herein is for reference purposes only and is compiled from best available sources. White County makes no warranty, expressed or implied, concerning the accuracy or completeness of information contained herein.

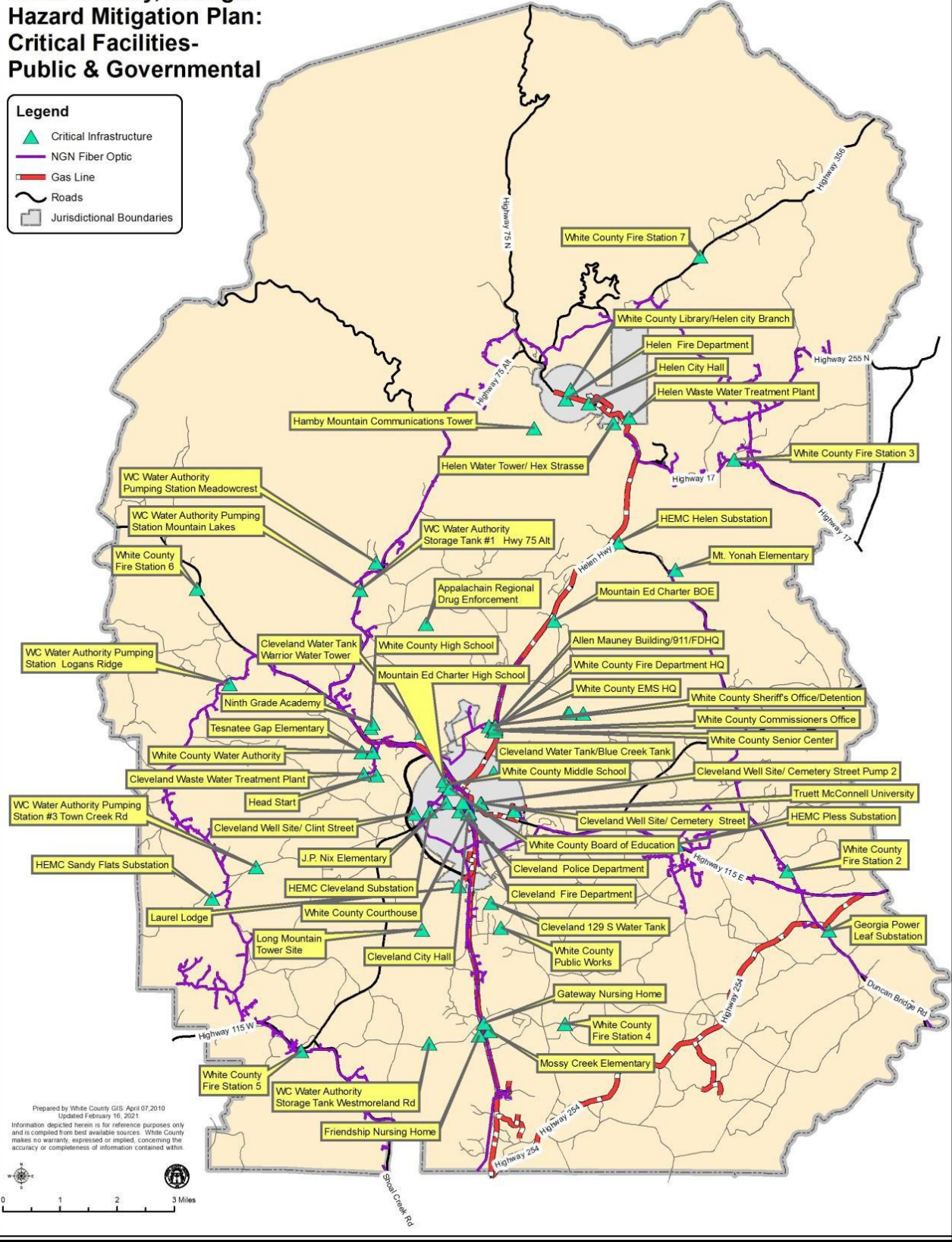


0 0.5 1 1.5 Miles

# White County, Georgia Hazard Mitigation Plan: Critical Facilities- Public & Governmental

**Legend**

-  Critical Infrastructure
-  NGN Fiber Optic
-  Gas Line
-  Roads
-  Jurisdictional Boundaries



Prepared by White County GIS April 07 2010  
Updated February 16, 2021  
Information depicted herein is for reference purposes only  
and is compiled from best available sources. White County  
makes no warranty, expressed or implied, concerning the  
accuracy or completeness of information contained within.

0 1 2 3 Miles

## APPENDIX G GLOSSARY

**Disaster:** the occurrence of widespread or severe damage, injury, loss of life or property, or such severe economic or social disruption that supplemental disaster relief assistance is necessary for the affected political jurisdiction(s) to recover and alleviate the damage, loss, hardship, or suffering caused thereby.

**EOC:** Emergency Operations Center

**Federal Emergency Management Agency (FEMA):** Federal agency under the Department of Homeland Security responsible for coordinating the federal government's efforts to plan for, respond to, recover from, and mitigate against the effects of natural and technological hazards.

**Flash Flood Warning:** Flash flooding is occurring or imminent in the warning area. It can be issued because of torrential rains, a dam failure, or ice jam.

**Flash Flood Watch:** Flash flooding is possible in or close to the watch area. Flash Flood Watches are generally issued for flooding that is expected to occur within 6 hours after heavy rains have ended.

**Flood Insurance Rate Map (FIRM):** prepared by the Federal Emergency Management Agency to show Special Flood Hazard Areas; this map is the basis for regulating development according to the Regulations for Flood Plain Management (Chapter 64) and Standards for Construction of Streets and Drainage in Subdivisions (Chapter 82).

**Flood Warning:** Flooding conditions are occurring or are imminent in the warning area.

**Flood Watch:** High flow or overflow of water from a river is possible in the given time. It can also apply to heavy runoff or drainage of water into low-lying areas. These watches are generally issued for flooding that is expected to occur at least 6 hours after heavy rains have ended.

**Georgia Emergency Management Agency (GEMA):** Georgia state agency responsible for coordinating state efforts to plan for, respond to, recover from, and mitigate against the effects of natural and technological hazards.

**Grant:** means an award of financial assistance.

**Hazard:** the natural or technological phenomena, event or physical condition that has the potential to cause property damage, infrastructure damage, other physical losses, and injuries and fatalities.

**Hurricane Warning:** Hurricane conditions are expected in the warning area in 24 hours or less.

**Hurricane Watch:** Hurricane conditions (sustained winds greater than 73 mph) are possible in the watch area within 36 hours.

**Measure:** any mitigation measure, project or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters.

**Mitigation:** actions taken to reduce or eliminate the long-term risk to life and property from hazards. Mitigation actions are intended to reduce the need for emergency response – as opposed to improving the ability to respond.

**National Flood Insurance Program (NFIP):** located within FEMA, and charged with preparing FIRMs, developing regulations to guide development, and providing insurance for flood damage.

**Risk:** the potential losses associated with a hazard. Ideally, risk is defined in terms of expected probability and frequency of the hazard occurring, the people and property that are exposed, and the consequences.

**Severe Thunderstorm Warning:** A severe thunderstorm has been observed by spotters or indicated on radar and is occurring or imminent in the warning area.

**Severe Thunderstorm Watch:** Conditions are conducive to the development of severe thunderstorms in and close to the watch area.

**Special Flood Hazard Area (SFHA) or Floodplain** is the area adjoining a river, stream, shoreline, or other body of water that is subject to partial or complete inundation. The SFHA is the area predicted to flood during the 1% annual chance flood, commonly called the “100-year” flood.

**State Hazard Mitigation Program:** an ongoing program involving a coordinated effort of state agencies to reduce the threat to people and property from natural hazards. During and following periods of Presidentially declared major disasters, this program or approach is the compilation of activities required under Sections 404 and 409, Federal Regulations.

**Tornado Warning:** A tornado has been sighted by spotters or indicated on radar and is occurring or imminent in the warning area.

**Tornado Watch:** Conditions are conducive to the development of tornadoes in and close to the watch area.

**Tropical Storm Watch:** Tropical storm conditions with sustained winds from 39 to 73 mph are possible in the watch area within the next 36 hours.

**Tropical Storm Warning:** Tropical storm conditions are expected in the warning area within the next 24 hours.

Other definitions applicable to the administration of the Hazard Mitigation Program are found in Section 206.401, 44 CFR, Part 206, and the Georgia Administrative Plan for Public Assistance.



## **Appendix H**

### Resource References

Numerous sources were utilized to ensure the most complete planning document could be assembled. To ensure that all data sources consulted are cited, references are listed in the following format: 1) Publications, 2) Web sites, 3) Other Sources

#### **Publications/Documents**

FEMA Pre-Disaster Mitigation How-to Guides

GEMA Supplements to FEMA Pre-Disaster Mitigation How-to Guides.

White County Local Emergency Operations Plan- 2010

U.S. Geological Survey Quadrangle Maps, 2002

U. S. Conservation Service (NRCS) Flood Management Study of White County 1993

White County Comprehensive Plan, 1991-2010

#### **Web Sites**

FEMA ([www.fema.gov](http://www.fema.gov)) GEMA

([www.gema.state.ga.us](http://www.gema.state.ga.us))

White County News ([www.whitecountynewstelegraph.com](http://www.whitecountynewstelegraph.com))

WRWH Radio ([www.wrwh.com](http://www.wrwh.com))

National Climate Data Service ([www4.ncdc.noaa.gov](http://www4.ncdc.noaa.gov))

National Weather Service-Southern Region Headquarters ([www.srh.noaa.gov](http://www.srh.noaa.gov))

About North Georgia ([www.ngeorgia.com](http://www.ngeorgia.com))

City Data ([www.city-data.com](http://www.city-data.com))

National Register of Historic Places for White County ([www.roadsidega.com/nrhp/White](http://www.roadsidega.com/nrhp/White))

#### **Other Sources:**

White County Emergency Management Archives

White County Fire Department Archives

Georgia Forestry Commission

U.S. Forest Service

Georgia Department of Natural Resources

White County Library Archives

American Red Cross

Cities of Cleveland and Helen Archives

White County Chamber of Commerce

SATT (Site Assessment of Tornado Threat) Software, ver. 3.0 from

White County Tax Assessor's Office

**APPENDIX I**

**White County Board of Commissioners Resolution of Adoption**

**WHITE COUNTY BOARD OF COMMISSIONERS  
RESOLUTION NO. 2021-03**

**A RESOLUTION OF THE  
WHITE COUNTY BOARD OF COMMISSIONERS  
PURSUANT TO THE DISASTER MITIGATION ACT OF 2000  
AUTHORIZING ADOPTION OF THE  
WHITE COUNTY HAZARD MITIGATION PLAN UPDATE**

WHEREAS, White County and its municipal governments are required to update the Hazard Mitigation Plan by the Disaster Mitigation Act of 2000; and

WHEREAS, under the provisions of the Disaster Mitigation Act of 2000, local governments that complete the Hazard Mitigation Plan update will remain eligible for Federal mitigation funding; and

WHEREAS, White County and its municipal governments have completed a Disaster Hazard Mitigation Plan update that fulfills the Federal requirements of the Disaster Mitigation Act of 2000; that public hearings have been held to receive public input on the proposed plan update;

NOW THEREFORE, LET IT BE RESOLVED THAT THE WHITE COUNTY BOARD OF COMMISSIONERS FORMALLY ADOPTS THIS MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN AS UPDATED.

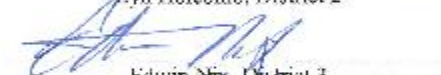
RESOLVED THIS 17<sup>th</sup> DAY OF JUNE 2021.


**WHITE COUNTY BOARD OF COMMISSIONERS**

  
\_\_\_\_\_  
Travis C. Turner, Chairman

  
\_\_\_\_\_  
Jerry D. Goodger, District 1

- Not in Attendance -  
\_\_\_\_\_  
Lyn Holcomb, District 2

  
\_\_\_\_\_  
Edwin Nix, District 3

  
\_\_\_\_\_  
Craig Bryant, District 4

Attest:   
Shanda Murphy, County Clerk

**City of Cleveland Resolution of Adoption**

**A RESOLUTION OF THE  
CITY OF CLEVELAND  
Resolution Number 2021-17**

**PURSUANT TO THE DISASTER MITIGATION ACT OF 2000  
AUTHORIZING ADOPTION OF THE  
WHITE COUNTY HAZARD MITIGATION PLAN UPDATE**

---

**WHEREAS**, White County and its municipal governments are required to update the Hazard Mitigation Plan by the Disaster Mitigation Act of 2000; and

**WHEREAS**, under the provisions of the Disaster Mitigation Act of 2000, local governments that complete the Hazard Mitigation Plan update will remain eligible for Federal mitigation funding; and


**WHEREAS**, White County and its municipal governments have completed a Disaster Hazard Mitigation Plan update that fulfills the Federal requirements of the Disaster Mitigation Act of 2000; that public hearings have been held to receive public input on the proposed Plan update;


**NOW THEREFORE, LET IT BE RESOLVED THAT THE MAYOR AND COUNCIL OF THE CITY OF CLEVELAND, GEORGIA, FORMALLY ADOPTS THIS MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE.**

**RESOLVED THIS 2 DAY OF AUGUST , 2021.**

  
\_\_\_\_\_  
Josh Turner, Mayor

  
\_\_\_\_\_  
Kevin Stanley, Council Member  
Ward 3

  
\_\_\_\_\_  
Nan Bowen, Council Member  
Ward 1  
Mayor Pro Tem

  
\_\_\_\_\_  
Bradley Greene, Council Member  
Ward 4

  
\_\_\_\_\_  
Rebecca Yardley, Council Member  
Ward 2

Attest:   
\_\_\_\_\_  
Connie Tracas, City Clerk



**City of Helen Resolution of Adoption**

**CITY OF HELEN**

**RESOLUTION NO. 21-07-01**

**A RESOLUTION OF THE CITY OF HELEN MAYOR  
AND CITY COMMISSIONERS PURSUANT TO THE DISASTER  
MITIGATION ACT OF 2020 AUTHORIZING ADOPTION  
OF THE WHITE COUNTY HAZARD MITIGATION PLAN UPDATE**

**WHEREAS**, White County and its municipal governments are required to update the Hazard Mitigation Plan by the Disaster Mitigation Act of 2000; and

**WHEREAS**, under the provisions of the Disaster Mitigation Act of 2000, local governments that complete the Hazard Mitigation Plan update will remain eligible for Federal mitigation funding; and

**WHEREAS**, White County and its municipal governments have completed a Disaster Hazard Mitigation Plan update that fulfills the Federal requirements of the Disaster Mitigation Act of 2000; that public hearings have been held to receive public input on the proposed plan update;

**NOW THEREFORE, LET IT BE RESOLVED THAT THE CITY COMMISSION FOR THE CITY OF HELEN, GEORGIA FORMALLY ADOPTS THIS MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN AS UPDATED.**

**RESOLVED THIS 20th DAY OF JULY 2021.**

  
\_\_\_\_\_  
Lee Landress, Mayor

  
\_\_\_\_\_  
Jeff Ash, City Commissioner

  
\_\_\_\_\_  
Geneva S. Elwell, City Commissioner

  
\_\_\_\_\_  
Steve Fowler, City Commissioner

  
\_\_\_\_\_  
Fred Garmon, City Commissioner

  
\_\_\_\_\_  
Attest: Marilyn Chastain, City Clerk

**CONCURRENCE**

The following individuals or entities are assigned responsibilities within this plan. The signature below, by an authorized representative, indicates an understanding and acceptance of those responsibilities.

<b>Organization</b>	<b>Authorized Representative</b>	<b>Consent Signature</b>	<b>Date</b>
White Co Emergency Management Agency	David L. Murphy		
White Co Planning	John Sell		
White Co Government			
City of Cleveland	Tom O’Bryant		
City of Helen	Jerry Elkins		

## CERTIFICATION OF REVIEW

A review of this plan has been conducted by the Emergency Management Director, and the review is hereby certified:

DATE	NAME	SIGNATURE

**RECORDS OF CHANGES & UPDATES**

Changes have been made to the plan attachments as indicated, and copies of the changes have been provided to all entities requiring updates as indicated on the plan distribution list

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	CHANGE MADE BY (Signature)
1	07/01/2021	07/01/2021	dmurphy
<b>SUMMARY OF CHANGE(S):</b>			
<p>Entire document revision. Email confirmations from all parties with approved changes. Adopted resolutions by all jurisdictions.</p>			
CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	CHANGE MADE BY (Signature)
2			
<b>SUMMARY OF CHANGE(S):</b>			

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	CHANGE MADE BY (Signature)
3			

**SUMMARY OF CHANGE(S):**

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	CHANGE MADE BY (Signature)
4			

**SUMMARY OF CHANGE(S):**