Glascock County, Georgia
Pre-Disaster Hazard Mitigation Plan Update
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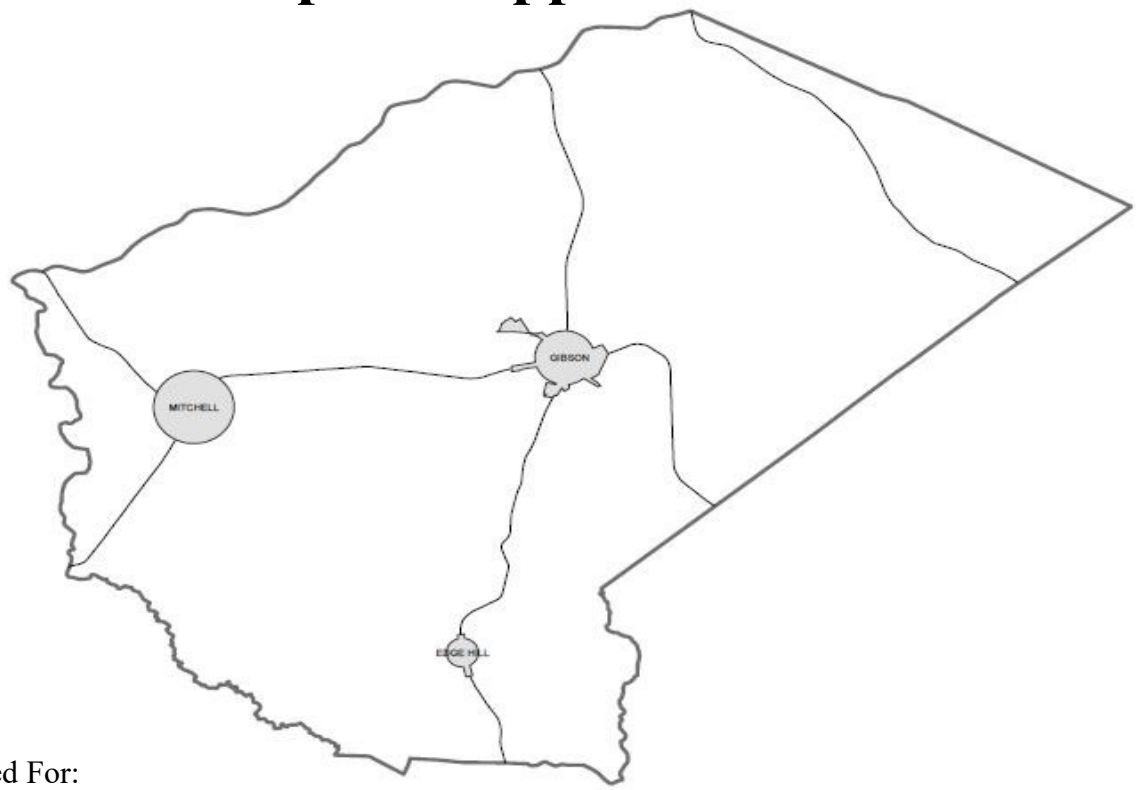

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CHAPTER I. INTRODUCTION TO THE PLANNING PROCESS

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

Table 1.1

Chapter I. Section		Updates to Section
I.	Purpose and need of the plan, authority & statement of problem	Updated text of this section.
II.	Local methodology, brief description of plan update process, Participants in update process	Updated the participants, planning process and how data collection was performed
III.	Description of how each section of the original plan was reviewed and analyzed and whether it was revised	Since there have been numerous changes to the GEMA-PDM planning template since the 2013 approval all sections of the original plan were analyzed and revised.
IV.	Organization of the plan	Organized updated by GEMA local planning template Local Hazard Mitigation Plan Update Template 5-23-12 and includes a timeline.
V.	Local Hazard, Risk, and Vulnerability (HRV) summary, local mitigation goals and objectives	Added new information to summary, new purpose for plan.
VI.	Multi-Jurisdictional special considerations (HRV, goals, special needs)	Added new information regarding multijurisdictional concerns.
VII.	Adoption, implementation, monitoring and evaluation	Evaluated the chapter, added additional text clearly delineating the task for implementation, and monitoring. Adopted after GEMA and FEMA reviewed and approved the update.
VIII.	Community Data (demographics, census, commerce, history, etc.)	Updated demographic and added additional information by jurisdiction.

SECTION I. PURPOSE AND NEED OF THE PLAN, AUTHORITY AND STATEMENT OF PROBLEM

The Glascock County 2023 Update is a review and improvement of our Multi-Hazard Pre-Disaster Mitigation Plan Update approved on November 04, 2013. The plan fulfills the requirements of the Federal Disaster Mitigation Act of 2000 (DMA2K). The Georgia Emergency Management Agency (GEMA) and the Federal Emergency Management Agency (FEMA) administer the Act. The act provides federal assistance to state and local emergency management and other disaster response organizations in an effort to reduce damage from disasters. The plan has involved many community partners including elected officials along with city, county, fire, emergency management, and law enforcement personnel. The plan's ultimate goal is to identify natural disasters that threaten our community and develop strategies to lessen the impact of these hazard events.

The 2023 update is written to comply with Section 409 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act Title 44 CFR as amended by Section 102 of the Disaster Mitigation Act of 2000. The act gives state and local governments the framework to evaluate and mitigate all hazards as a condition of receiving federal disaster funds. The 2023 update covers all of Glascock County to include the Town of Mitchell and the Cities of Edge Hill and Gibson. The plan will identify all natural disasters that threaten the lives and properties of our community. The scope of the update includes both short- and long-term mitigation strategies, implementation policies and possible sources of project funding. It also identifies mitigation strategies implemented since the 2018 update.

The plan also contains the following information on:

- The vision of mitigation in our community;
- The profile of Glascock County, its geography, history, physical features and other community indicators;
- The planning process and the involvement of all municipal, state and federal governments, the public, industry and other community players;
- Glascock County's past and predicted exposure to natural hazards and the potential risks that include the impacts on critical infrastructure with anticipated losses was documented;
- An overview of all four jurisdictions' capabilities to implement hazard mitigation goals and objectives, and policies that will effectively mitigate risks to our community. ;
- Procedures for maintaining an effective, long range hazard mitigation plan and strategy to implement;
- An assessment of Glascock County's current policies, goals and regulations that pertain to hazard mitigation;
- Documentation of the planning process;
- Updated hazard events that occurred since 2018;
- Updated critical facilities that have been added since 2018;
- Documentation of mitigation strategies implemented since 2018; and
- Examined and updated mitigation strategy goals, objectives and action steps.

The update is the product of the combined efforts of Glascock County, Edge Hill, Gibson, and Mitchell. Realizing that identifying the community's risks and working collectively toward the prevention of disasters is in the county's best interest, the Glascock County Emergency Management Agency (EMA) took the lead role in the update. Under the agency's leadership, there has been an endorsement and a commitment by all four jurisdictions.

Continued mitigation planning is imperative to lessen the impacts of disasters in all of Glascock County. This plan is an excellent method to organize and document current and ongoing mitigation strategies; however, the implementation of the plan and its components is vital to achieve a community resistant to the impact of a disaster. The objective is plan implementation will result in a reduction of the loss of life and property, while allowing the county to prosper with minimal disruption of services to the community.

SECTION II. LOCAL METHODOLOGY, PLAN UPDATE PROCESS AND PARTICIPANTS

The Glascock County Board of Commissioners contracted with the Central Savannah River Area Regional Commission (RC) to assist in the update to the 2013 plan. The RC has assisted ten counties in the completion and update of their Pre-Disaster Mitigation Plans. The RC is currently assisting nine counties with their second update. The RC was tasked to review the current plan and to identify new information that needs to be incorporated into the update. The RC in conjunction with the EMA Director, supervised the project, organized the data, set meeting dates, documented in-kind services, and worked with GEMA to complete the update.

The EMA Director, Mike Lyons assembled the 2023 Hazard Mitigation Planning Committee as seen in table 1.2.

Table 1.2

Name	Agency	Jurisdiction	Title
Angela Barrow	City of Edge Hill	Edge Hill	Clerk
Dewey Belcher	City of Edge Hill	Edge Hill	Edgehill Mayor
Gail Berry	City of Mitchell	Mitchell	Mayor
Lori Boyen	Glascock County BOC	Glascock County	Chair
Wanda Davis	Glascock Action Partners, Inc.	Glascock County	Executive Director
Brandon Davis	Georgia Forestry Commission	State of Georgia	Chief Ranger
Billy Faulk	Jefferson Energy Cooperative	Glascock County	Engineering Supervisor
Juanice Gordy	Cooperative Extensive Service	Glascock County	Admin. Assistant
Jim Holton	Glascock Consolidated School	Glascock County	Superintendent
Jeremy Kelley	Glascock County Sheriff Dept.	Glascock County	Sheriff
Greg Kelley	City of Gibson	Gibson	Mayor of Gibson
Connie Kitchens-Jackson	Glascock County Coroner	Glascock County	Coroner
Timmy Landrum	Mitchell Fire Dept.	Mitchell	Chief
Tammy Leonard	Glascock County DFCS	Glascock County	Office Manager
Mike Lyons	Glascock County EMA Director	Glascock County	Director
Jim Mason	Farm Bureau Insurance	Gibson	Agency Manager
Michael May	Gibson/Glascock County Fire Dept.	Glascock County	Fire Chief
Mark Shelton	Glascock County Fire and Rescue	Glascock County	Assistant Fire Chief
Sarah Simmons	City of Mitchell	Mitchell	Clerk Mitchell

The 2023 committee was responsible for the organization, data collection, and completion of the plan. The committee requested information needed from all pertinent departments within their respective governments. The following agencies/departments/organizations provided specific information and support for the original plan and provided any new information for the update:

- Glascock County Board of Education was responsible for providing structural

replacement and content values for all schools as well as square footage and occupancy limits.

- Glascock County Sheriff's Office provided staff support to the PDM planning effort.
- Glascock County Health Department identified vulnerable populations. They also provided replacement value estimates for their properties.
- All Fire Departments provided staff support to the PDM planning effort and assisted with identifying occupancy limits for some of the critical structures and replacement value estimates.
- Officials from Glascock County, Edge Hill, Gibson, and Mitchell provided information relative to their jurisdiction and provided replacement value estimates for their critical facilities.
- Georgia Forestry Commission provided data on wildfire events and assisted with the formulation of mitigation measures.
- Glascock County Tax Assessor's Office provided most of the aggregate values for the critical structures. The valuations were converted to full values since the values are calculated at 40%. This information, combined with demographic data, is located on GEMA Worksheet #3a in Appendix D for all jurisdictions.
- The RC's Geographical Information System (GIS) Department produced several of the maps contained in the update. Maps are located in Appendix A.
- GEMA provided the HAZ-US report for Glascock County and provided guidance for the plans completion as needed.

Several resources were consulted to facilitate the development of the update. Data was collected from numerous sources, including the (NOAA) National Centers for Environmental Information (NCEI), Spatial Hazard Events and Losses Database for the United States (SHELDUS™), National Weather Service, US Geological Survey (USGS), Southeast Regional Climate Center (SERCC), US Census Bureau, Georgia Department of Natural Resources (DNR), Georgia Forestry Commission (GFC), Georgia Tornado History Project Database, Georgia Department of Community Affairs (DCA), US Department of Agriculture (USDA), local and regional newspaper articles, as well as personal interviews. Table 1.4 provides a list of existing planning documents used during the update.

Table 1.4

Existing planning mechanisms	Reviewed? (Yes/No)	Method of use in Hazard Mitigation Plan
Glascock County Joint Comprehensive Plan	Yes	Development trends, capability assessment, mitigation strategies
Local Emergency Operations Plan	Yes	Identifying hazards; Assessing vulnerabilities. Capability assessment
Georgia Emergency Operations Plan	Yes	Identifying hazards; Assessing vulnerabilities;
Flood Damage Protection Ordinance	Yes, for Gibson only	Mitigation strategies, capability assessment
Building and Zoning Codes and Ordinances	Yes	Development trends; Future growth, capability assessment, mitigation strategies

Existing planning mechanisms	Reviewed? (Yes/No)	Method of use in Hazard Mitigation Plan
Mutual Aid Agreements	Yes	Assessing vulnerabilities, determine assets added to disaster relief and response.
State Hazard Mitigation Plan	Yes	Risk assessment, review of recommended strategies
Land Use Maps	Yes	Assessing vulnerabilities; Development trends; Future growth
Critical Facilities Maps	Yes	Locations
Community Wildfire Protection Plan	Yes	The plan is being updated by the GFC and new plan will be incorporated once it is completed during the annual review.
Soil Survey for Glascock County	Yes	Physical Characteristics of the County
Flood Insurance Study	Yes	Review for historical Data and Information
Hazard Risk Analyses Supplement to the Glascock County Joint Hazard Mitigation Plan Provided by The Polis Center	Yes	Assessing vulnerabilities; Mitigation strategies, risk assessment
CSRA Regional Plan 2035	Yes	Development trends; Future growth, regional concerns and data
Flood Mitigation Assistance Plan	No	The county does not have a Flood Mitigation Assistance Plan

The committee held three meetings over an 18-month period to guide the development of the plan. Individual jurisdictions and/or agencies were contacted, as information was needed. The committee was responsible for developing the mission statement, as well as the goals, objectives, and action steps identified in the plan. The committee researched previous hazard information in the areas of earthquakes, flooding, wildfires, tornados, winter storms, hurricanes, high winds, dam failure, lightning, hail, and drought. However, some hazards were eliminated due to their low level of risk. Committee members updated critical facilities information based on their area of expertise or jurisdiction. The RC was responsible for assessing vulnerability and estimating potential losses from the information collected. Potential losses include people, structures/properties, infrastructure, and other important community assets.

Table 1.5 provides the dates and synopsis of committee meetings. All meetings were open to the public and meeting notices posted at all governmental offices. Of the three public meetings, two were advertised in *The News and Farmer/The Jefferson Reporter,* the County's legal organ. This is the most efficient means to disseminate information to residents and organizations located in the county. In order to meet the requirement to afford an opportunity for neighboring communities, local and regional agencies, businesses, academia and other private and non-profit interests to be involved in the planning process, invitations were extended by email. Invitations were extended to the following counties: Burke, Columbia, Hancock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Taliaferro, Warren, Washington, and Wilkes including all municipalities located within the counties. It is noted that no comments or feedback was provided by the public. Copies of correspondence, emails and advertisements are in Appendix E.

Table 1.5

Meeting Date	Purpose of Meeting
July 23, 2021	Met with EMA Director to discuss the planning process, update committee members, and set a date for the first meeting.
October 27, 2021	This meeting was to ensure all data collected to date was correct and reviewed mitigation strategies and action steps.
October 28, 2022	This committee member meeting was to update the critical facilities list.
January 13, 2022	An advertisement ran in the January 13, 2022, edition of *The News and Farmer/The Jefferson Reporter* advertising the public meeting on January 19,2022 for public input before submission of plan
January 19, 2022	Reviewed plan, mitigation strategies and Hazus information.
August 23, 2022	An email was sent to committee members and surrounding counties announcing the meeting on August 31, 2022.
August 31, 2022	This meeting was to review previous mitigation strategies, determine what mitigation actions were completed since the last update, and to update action steps for the 2023 plan update.
TBA	This meeting was to ensure the committee and public had a final opportunity to provide input before submission to GEMA for review.
TBA	Advertisement ran in *The News and Farmer/The Jefferson Reporter* for public review period and the final meeting.
TBA	Held final meeting after FEMA Approved Pending Adoption (APA). The final meeting was held after the review period to ensure that the public was afforded the opportunity provide input.

SECTION III. ORIGINAL PLAN REVIEW AND REVISION

The Federal Disaster Mitigation Act of 2000 requires an update to the Pre-Disaster Mitigation Plan every five years. The EMA Director was responsible to meet this requirement. The committee, with the assistance of the RC, was involved in the planning process to ensure thorough data collection. All members of the committee were responsible for the evaluation of the current plan. During the review process, the committee noted mitigation accomplishments, updated and prioritized mitigation projects, added additional hazard information, developed new goals and objectives, solicited input from the public and made any needed or required revisions. The evaluation included analyzing any changes in the needs and/or capabilities of Glascock County, Edge Hill, Gibson, and Mitchell.

SECTION IV. ORGANIZATION OF THE PLAN

The estimated time to complete the plan update was approximately 20 months. Plan completion was identified by adoption of resolution by all jurisdictions. The update contains a Hazard, Risk, and Vulnerability (HRV) Assessment describing the natural hazards typically occurring within the county, as well as a review of all mitigation goals, objectives, and related courses of action. In

addition, plan implementation and maintenance were reviewed, which includes methods to provide opportunities for public involvement.

The hazards included in this plan are considered to have the highest probability of occurrence, vulnerability, potential loss/damages, and highest frequency of occurrence. The plan also identifies and prioritizes hazard mitigation opportunities in each vulnerable area based on the input from the committee members, relevant government agencies, local businesses, and Glascock County citizens.

SECTION V. LOCAL HAZARD RISK AND VULNERABILITY, SUMMARY LOCAL MITIGATION PLANNING GOALS OBJECTIVES

The committee, early in the update process, established a set of goals and objectives in order to ensure plan effectiveness. These goals and objectives established the paradigm for the planning process and proved very successful by the many accomplishments of the 2013 plan update. These goals and objectives are as follow:

- To actively involve and gain support from Edge Hill, Gibson, Mitchell, and unincorporated Glascock County to lessen the impacts of natural disasters in our community.
- Prioritize identified mitigation projects.
- Seek and implement any grant funding to lessen the impacts of natural disasters.
- Monitor, evaluate, and update the progress of the plan as needed.
- To form partnerships among local, state, and federal agencies to make Glascock County more resistant to the effects of disasters.
- Strengthen our communities against the impacts of disasters through the development of new mitigation strategies and strict enforcement of current regulations that have proven effective.
- Reduce and where possible eliminate repetitive damage, loss of life and property from disasters.
- Bring greater awareness throughout the community about potential hazards and the need for community preparedness.
- To further enhance common mitigation projects and goals between Glascock County, Edge Hill, Gibson, and Mitchell.

An HRV assessment was accomplished by compiling and reviewing historical data on the location of specific hazards, the value of existing structures/properties in hazard locations, and analyzing the risk to life, property and the environment that could potentially result from future hazard events. The committee accomplished the HRV goals and objectives by completing the following steps:

Inventory of Critical Facilities: Critical facilities are crucial for providing essential services necessary for preserving the safety and quality of life of its residents. In addition, these facilities fulfill important public safety, emergency response, and/or disaster recovery functions. All critical facilities were added to the Georgia Mitigation Information System (GMIS). Critical facilities for Glascock County, Edge Hill, Gibson, and Mitchell were identified, updated, mapped, and illustrated in Appendix A.

Hazard Identification: Maps and historical data sources were studied and reviewed to identify the geographic extent, intensity, and probability of occurrence for various hazard events. The 2013 committee identified five major hazards that have the potential to affect Glascock County: flooding, drought, wildfire, severe weather (tornados, tropical storms, thunderstorms, lightning) and winter storms. The update committee reviewed current hazard data and added hail to the already identified hazard. Appendix D provides an updated comprehensive historical table for each hazard.

Profiling Hazard Events: The committee analyzed the causes and characteristics of each hazard, and its effect on Glascock County in the past to determine what segment of the population and infrastructure has historically been vulnerable to each specific hazard. A discussion of each hazard's updated profile is in Chapter 2.

Vulnerability Assessment: This step was accomplished by comparing each previously identified hazard with the inventory of affected critical facilities and population exposed to each hazard. An updated Worksheet #3a is provided in Appendix D.

Estimating Losses: Using the best available data, tax digest data, parcel maps and GMIS reports and maps for critical facilities allowed the committee to estimate damages and financial losses that might occur in a geographic area. Describing vulnerability in terms of dollar losses provides the county with a common framework in which to measure the effects of hazards on critical facilities. All information in this section has been updated *(Appendix A and Appendix D).*

Mitigation Goals and Objectives: After ensuring that all interested persons were given many opportunities to contribute to strategy development, mitigation action steps were next given priority status by committee members. To evaluate priorities, committee members used as a guide a planning tool prepared by FEMA known as STAPLEE (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) criteria. Each mitigation strategy step was evaluated using STAPLEE criteria as the guiding principle to identify those steps best for Glascock County. Steps were ranked as high priority, medium priority, or low priority. Past occurrences of disasters and historical trend data aided committee members in assigning priorities.

SECTION VI. MULTI-JURISDICTIONAL SPECIAL CONSIDERATIONS

Glascock County, Edge Hill, Gibson, and Mitchell provided active participants in the planning process. Specific mitigation goals, objectives and action items have been identified for each jurisdiction. The governing bodies for Glascock County, Edge Hill, Gibson, and Mitchell have formally adopted the Multi-Hazard Pre-Disaster Mitigation Plan.

Edge Hill, Gibson, and Mitchell were notified in July 2021 of the requirement concerning the 2023 update. Representatives from Glascock County, Edge Hill, Gibson, and Mitchell have worked collectively over the past months to gather data that included researching old records, newspaper articles, databases, historical data, past and present flood plain data, and technical information for the plan. Collected data was forwarded to the RC for review and plan development. The committee held subsequent meetings to ensure that all information was correct and that all agencies and organizations input was included.

The EMA Director led activities for mitigation planning countywide. The committee goals are to work in partnership with municipal partners toward a common mitigation strategy that significantly reduces the vulnerability of natural disasters. Most natural threats overlap jurisdictions and are all susceptible to their affects. Glascock County, Edge Hill, Gibson, and Mitchell share the same passion and desire for protecting and reducing risk through the mitigation projects. Specific risks and areas were identified through working relationships and data collection from all areas of the county and are identified in this plan.

SECTION VII. ADOPTION, IMPLEMENTATION AND MONITORING AND VALUATION

Adoption Date

Table 1.6

Jurisdiction	Adoption Date
Glascock County	TBA
City of Edge Hill	TBA
City of Gibson	TBA
Town of Mitchell	TBA

The plan was submitted to GEMA for review and then to FEMA for approval. The respective governing bodies for Glascock County, Edge Hill, Gibson, and Mitchell formally adopted the 2023 update after GEMA and FEMA approval. The plan is intended to be implemented into policy and to enhance state and federal recommendations for the mitigation of natural hazards in the following ways:

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

FEMA publishes many guidance documents for local governments for mitigating natural disasters. The plan fully recognizes, adopts, incorporates, and endorses the following principals.

- Develop a strategic mitigation plan for Glascock County.
- Enforce current building codes.
- Develop incentives to promote mitigation.
- Incorporate mitigation of natural hazards into land use plans.
- Promote awareness of mitigation opportunities throughout Glascock County community on a continual basis.
- 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 as such:

- Develop mitigation incentives with insurance agencies and lending institutions.
- Encourage the creation of a business continuity plan for the continuance of commerce during disasters.
- Collaborate with businesses in effort to communicate with customers about the community hazards and possible solutions.

Individual citizens must be made aware of the hazards and educated on how to protect themselves and their property. They must be shown mitigation is an important part of reducing loss of life and property. The publics support is critical to the success of any mitigation effort. The Glascock County Plan supports the following FEMA recommendations regarding individual citizens:

- Become educated on the hazards that your community and you may face.
- Become part of the process by supporting and encouraging mitigation programs that reduce vulnerability to disasters.
- That individual responsibility for safeguarding you and your family prior to a disaster is essential.

Chapter IV. Plan Integration and Maintenance details the formal process to ensure the plan remains an active and relevant document. The plan maintenance process includes monitoring and evaluating the plan annually, and producing a plan revision every five years. Additionally, Glascock County will develop steps to ensure public participation throughout the plan maintenance process. Finally, this section describes how Glascock County will incorporate the mitigation strategies identified in this plan into other relevant planning documents such as the Glascock County Joint Comprehensive Plan, Short-Term Work program (STWP) and Local Emergency Operations Plan (LEOP).

SECTION VIII. COMMUNITY DATA

Political Boundaries - Glascock County

Glascock County

GA Department of Community Affairs Region 7

Georgia

History: Glascock County, established December 19, 1857, was named after Thomas Glascock, a soldier in the War of 1812, general in the First Seminole War, and a member of Congress from 1835 to 1839, native Georgian and distinguished lawyer, statesman, governor, and U.S. senator of South Carolina. Covering a total area of 144.2 square miles, it the fourth smallest county in Georgia. Glascock County is one of 13 counties that comprise the Central Savannah River Area (CSRA). There are three incorporated municipalities in Glascock County; Edge Hill, Gibson, and Mitchell.

Government: Glascock County operates under a commission-based system of government in which three commissioners are elected to four-year terms. Other county officials are the Sheriff, Coroner, Probate Judge, EMA Director and District Attorney.

Gibson is the County seat and operates under a Mayor and City Council-based system of government with four elected council members. Other officials charged with presiding over activities within the City are the City Clerk, City Attorney, Finance Officer, and Public Works Director.

Mitchell and Edge Hill also operate under a Mayor and Council-based system of government. Mitchell has four council members and a Mayor Pro-tem while Edge Hill has two council members. Other officials charged with presiding over activities within Mitchell are the Town Clerk, Town Attorney, and Water Superintendent. Officials in Edge Hill are the City Clerk, City Attorney, and the Water Superintendent.

Demographics: As of 2020, Glascock County has a population of 2,984 persons. The two tables below provide a comparison of the jurisdictions and a historical prospective of the population trends within the county.

Table 1.7

Category	Glascock County	Edge Hill	Gibson	Mitchell
Population	2,984	8	630	153
Number of Households	1,118	4	278	43
Average Household Size	2.6	2	2.97	2.6
Race - White	88.9%	100%	74.8%	93.8.%
Race - Black	9.7%	0.0%	24.7%	2.7%
Race - Hispanic	1.6%	0.0%	0.0%	3.6%
Race - Other	0.0%	0.0%	0.0%	0.9%
Median HH Income	$46,500	-	$37,500	-
Individuals below poverty level	11.1%	0.0%	26.8%	29.4%

2020 American Community Survey

Table 1.8

Community	Population				Growth (%)		
	1990	**2000**	**2010**	**2020**	**1990-2000**	**2000-2010**	**2010-2020**
Glascock County	2,357	2,556	3,082	2,984	8.4%	20.6%	-3.23%
Edge Hill	22	30	24	8	36.4%	-20%	-66.7%
Gibson	679	694	663	630	2.2%	-4.5%	-5.1%

Community	Population				Growth (%)		
Mitchell	181	173	199	153	-4.4%	15%	-26.13%

Source: US Census Bureau

Economy: In 2020, the labor force for Glascock County was 1,244 and 1,193 were employed, giving the County an unemployment rate of 4.1%. The average weekly wage for employment sectors in Glascock County was $589. The county's per capita personal income in 2019 was $34,786.

The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. The table below provides a list of jobs, number of establishments and jobs along with average weekly wages per job for 2020 in Glascock County.

Table1.9

Annual Industry Distribution of Jobs and Average Wage in 2020 (NAICS)	Establishments	Jobs	Weekly Average Wage Per Job
Total Covered Employment and Wages	**39**	**397**	**589**
Total Private Sector	**28**	**216**	**636**
Total Government	**11**	**181**	**534**
Agriculture, forestry, fishing, hunting	3	*	*
Mining	0	0	0
Construction	2	*	*
Manufacturing	0	0	0
Wholesale trade	1	*	*
Retail trade	6	30	381
Transportation, warehousing	4	7	724
Utilities	0	0	0
Information	0	0	0
Finance and Insurance	1	*	*
Real Estate, rental, leasing	1	*	*
Professional, technical services	3	7	780
Mgmt. of companies, enterprises	0	0	0
Administrative and support and waste management services	0	0	0
Educational services	0	0	0
Health care, social assistance	3	*	*
Arts, entertainment, recreation	1	*	*
Accommodation and food services	2	*	*
Other services, except public administration	0	0	0
Unclassified-Industry not assigned	1	*	*

*Source: Georgia Department of Labor * Industry group does not meet criteria for disclosure*

Climate: According to the National Weather Service, Central Georgia where Glascock County is located experiences all four seasons. Glascock County, GA, gets 46.3 inches of rain per year. The US average is 37. Snowfall is 0.2 inches. The average US city gets 25 inches of snow per year. The number of days with any measurable precipitation is 95. On average, there are 218 sunny days per year. The July high is around 91 degrees. The January low is 34.5.

Physical Features: Glascock County encompasses an area of roughly 144 square miles or 92,160 acres. The topography of Glascock County ranges from that of level in the low-lying flood plain areas to approximately 20% incline along the side slopes of some ridgelines. The county has numerous wetlands, 21 rivers and streams, 5 reservoirs, and bordered by the Ogeechee River. According to the GFC, Glascock County is approximately 68% or 62,668 acres of forestland.

Portions of Glascock County are located within the Carolina and Georgia Sand Hills Major Land Resource Area (MLRA), the Southern Piedmont MLRA, and Southern Coastal Plain MLRA. The Carolina and Georgia Sand Hills MLRA actually forms a very narrow band between the Southern Piedmont MLRA and the Coastal Plain MLRA.

Southern Piedmont - Characterized by steep to gently rolling thin and well drained red soil with sandy loam surface layers over sandy clay to clay subsoil. This area has fair to good suitability for building foundations and fair to poor suitability for septic tanks.

Carolina and Georgia Sand Hills - Consists of a belt of gently sloping to steep, well-drained soils originally derived from marine sands, loams, and clays. The area is largely covered with sparse forest of scrub oaks and pines, and has poor to good suitability for residential development and commercial-industry uses.

Southern Coastal Plain - Characterized by gently sloping well-drained sandy loam to sandy soils over friable and sandy clay loam to clay subsoils that are sticky when wet. This area has fair to good suitability for residential development and commercial industry uses. A map of the soil types, wetlands and flood plains are located in Appendix A.

A survey of Glascock County soil associations was conducted and approved by the Soil Conservation Service in 1994 and can be found at the following URL: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/georgia/glascock_jeffersonGA1994/Glascock.pdf. A map of the soil types, wetlands and flood plains are located in Appendix A.

Transportation

Vehicle Traffic: There are roughly 231 miles of roads in the County network. This mileage includes 81 miles of state highways, 364 miles of county roads, 17 miles of city streets (Edge Hill, Gibson, and Mitchell). State highways 80, 102, 123, and 171 are major transportation routes in the County. Currently Glascock County has no mass transit system.

Table 1.10

Mileage by Route and Road System Report 445 for 2018			
	Total Road Mileage (2018)	Lane Mileage	Vehicle Miles Traveled (VMT)
State Route	40.71	81	37,729
County Road	182.0	364	90,967
City Street	8.43	17	4,314
Total	**231.0**	**462**	**133,010**

Source: Georgia Department of Transportation, Office of Transportation Data, "445 Series Reports."

Public Transportation: Glascock County, Gibson, Mitchell, and Edge Hill residents are served by the Glascock County Rural Transportation System. The transit service is available to all Glascock County residents by appointment (24-hour notice required) and can provide customers with access to facilities within all of Glascock County between the hours of 8:00 AM and 5:00 PM, Monday through Friday. The transit system also makes weekly trips to Wrens, Sandersville, and Augusta on Thursdays and Fridays by appointment. The Glascock County Rural Transportation System operates one van with a wheelchair lift. The system offers significantly lower fare box rates for residents 60 years or older than for younger segments of the population. Funding for the system comes from a mix of local sources – including operating revenues – and Federal Section 5311 funds. Agreements with the Georgia Department of Human Services and other state departments also allow the transit system to provide free trips to qualifying seniors and citizens with limited economic resources.

Rail Traffic: Glascock County does not have any working passenger, commuter, or freight rail lines. The closest freight line to Glascock County is in Warren County.

Air Service: Although Glascock County has no aviation facilities of its own, it is within close proximity to other general aviation airports of varying size and accommodation. Some Glascock County residents may find that one or more of the following airports may meet their aviation:

- Augusta Regional Airport at Bush Field
- Thomson-McDuffie County Regional Airport
- Atlanta Hartsfield-Jackson International Airport

Utilities

Electricity: Georgia Power and Jefferson Electric Membership Corporation provides electricity to the county.

Natural gas: Atlanta Gas Light Company provides natural gas to the county.

Water and Sewer: Gibson operates a public water system with a storage and treatment capacity of 175,000 gallons per day (gpd). The City also has three deep wells from which water is supplied. Mitchell operates a public water system with a storage and treatment capacity of 40,000 gpd. Edge Hill operates a public water system with two wells that supply the residents with water. The City of Gibson operates a public sewerage system. The number of customers in 1990 was 271. The current treatment capacity is 210,000 gpd compared to a 1991 average

demand of 42,358 gpd. Gibson treatment plant has a 120,000 gpd permitted capacity with an average discharge of 90,000 gpd.

Solid Waste: Glascock County has closed its landfill and has contracted with Advance Disposal for collecting solid waste at business dumpsters and collections sites in the County.

Communications: Glascock County's landline phone service primary provider is AT & T. The County has many media outlets that consist of print, radio, and television. Local print media consists of *The News and Farmer/The Jefferson Reporter* that serves as the legal organ of Glascock County and *The Augusta Chronicle*. Glascock County is served by 19 FM radio stations. All metro Augusta television stations broadcast in Glascock County. These are WRDW, WJBF, WAGT, and WFXG.

Fire and Emergency Services

Response: Enhanced 911 Service (E-911) is available 24-hours a day throughout the county and is operated and coordinated by the Glascock County EMA. CodeRED® is a new County service by which County officials can notify County residents by telephone about emergencies or critical community alerts. The system is capable of sending messages only to people affected or in the case of a widespread emergency like a tornado, to the County's entire population.

Fire and Rescue: Gibson, Mitchell, and Edge Hill are served by the Gibson-Glascock County Volunteer Fire Department with 20 volunteers. The Insurance Services Organization (ISO) rating in the County is 9, the cities it is 6.

Law Enforcement: The County Sheriff's Office currently is the sole provider of law enforcement services. The County has a 2500 sq. ft. building with no holding cells. Glascock County prisoners are housed in Thomson (McDuffie County). There is a sheriff, two full-time and two part-time deputies and a secretary. There are six police vehicles for officers.

Emergency Medical Service: McDuffie County Emergency Medical Service is a 24 hour emergency ambulance service that provides emergency pre-hospital advance life support and basic life support transportation to all ages of people within the boundaries of McDuffie and Glascock Counties. McDuffie County EMS is based at University Hospital McDuffie with a substation in the town of Dearing.

CHAPTER II. NATURAL HAZARD, RISK AND VULNERABILITY (HRV)

The committee identified all natural hazards that could potentially affect Glascock County, Edge Hill, Gibson, and Mitchell utilizing FEMA Worksheet #1 (Appendix D). Task A of Worksheet #1 instructed committee members to research newspapers and other historical records, existing community plans and reports, as well as internet websites to determine which hazards might occur in Glascock County. Task B then narrowed the list to only hazards most likely to affect the county by reviewing hazard websites to determine if Glascock County is in a high-risk area.

Initially, the committee found that droughts, earthquakes, hurricanes, extreme heat, severe winter storms, tornados, wildfire, dam failure and windstorms might affect Glascock County. However, the committee later concluded that some of these hazards did not pose a significant threat. Because of the planning process, the committee determined that seven natural hazards pose a direct, measurable threat: flooding, drought, wildfire, tornadoes, tropical storms, severe thunderstorms, and winter storms. The committee profiled each of these hazards using FEMA worksheet #2 and #3a, which included obtaining a base map and recording hazard-event profile information. Of the seven hazards mentioned, the entire County is exposed to five: severe weather, winter storms, tropical storms, wildfire, and drought while flooding and tornadoes are isolated to select areas. Each of these potential hazards is addressed with relevant supporting data.

Chapter II. Section	Updates to Section
I. Flood	Updated events, updated critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
II. Drought	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
III. Wildfire	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
IV. Tornadoes	Removed from Severe Weather Category. Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
V. Tropical Storms	Removed from Severe Weather Category. Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
VI. Severe Weather	Updated events, added critical facilities to GMIS, updated tax information. Hail and lightning was added to hazards. Recalculated hazard frequency data. Added information from Hazus-MH analyses.
VII. Winter Storms	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.

SECTION I. FLOODING

A. Hazard Identification: Flood plains are relatively flat lands that border streams and rivers that are normally dry but are covered with water during floods. The susceptibility of a stream to flooding is dependent upon several different variables. Among these are topography, ground saturation, rainfall intensity and duration, soil types, drainage, drainage patterns of streams, and vegetative cover. A large amount of rainfall over a short time can result in flash flood conditions. A small amount of rain can also result in floods where the soil is saturated from a previous wet period or if rain is concentrated in an area of impermeable surfaces such as large parking lots, paved roadways, etc. Topography and ground cover are contributing factors for floods where water runoff is greater in areas with steep slopes and little or no vegetation. The severity of a flood is usually measured in terms of depth of flooding.

Flooding occurs when the volume of water exceeds the ability of a water body (stream, river, or lake) to contain it within its normal banks. Floodplains serve three major purposes: Natural water storage and conveyance, water quality maintenance, and groundwater recharge. These three purposes are greatly inhibited when floodplains are misused or abused through improper and unsuitable land development. For example, if floodplains are filled to construct a building, valuable water storage and recharge areas are lost. This causes unnecessary flooding in previously dry areas and can damage buildings and other structures.

Gibson participates and will continue compliance with NFIP through review, adoption, and updates to flood protection ordinances and to update flood maps as updates are available. Gibson will work towards database to record depth of flooding to determine extent and possible damage. Glascock County, Edge Hill and Mitchell do not participate in the NFIP. The County is reviewing the possibility of participating within the next year. These three jurisdictions do not participate, as there is no code enforcement or building inspection in the County. Until they can enforce the flood ordinances, they will have a hard time participating. Edge Hill has only 22 residents and based on the Flood Insurance Study has no none flood prone areas. The following table provides information about each jurisdiction's participation level.

Jurisdiction	Init FHBM Identified	Init. FIRM Identified	Curr. Eff. Map Date	Reg-Emer Date	Sanction Date
Glascock County	None	06/18/2010	06/18/2010		
Edge Hill	None	N/A	N/A		N/A
Gibson	03/28/1975	06/18/2010	06/18/2010	07/17/86	N/A
Mitchell	None	06/18/2010	06/18/2010		06/18/2011

Source: FEMA Community Status Book and Flood study

B. Hazard Profile: Severe flooding within Glascock County is a relatively infrequent event, but there is still potential for flooding. The County has 5 reservoirs, and 21 river/streams. Slopes in Glascock County range from nearly level in the low-lying floodplain areas to approximately 20% along the side slopes of some ridgelines. The committee examined historical data from the NCEI, USGS, SHELDUS™, past newspaper articles and conducted interviews on the effects of past flooding events. In the last 71 years, three flooding events

were recorded, where all occurred in the unincorporated area of the County. The table below is a result of information gathered from interviews, newspaper articles, and the NCEI and SHELDUS™ databases.

Date	Fatality	Inj	PrD	CrD	Event Narrative
8/16/1994	0	0	14k	0.00k	Heavy rainfall fell across the county washing out several roads
10/04/1995	0	0	0.00k	0.00k	N/A
7/7/2011	0	0	8.00K	0.00K	Heavy rainfall of 5-6 inches in a 2–3-hour period across southern Warren and northern Glascock resulted in excessive runoff from Beechtree Branch Creek. The creek flooded/washed out a culvert on Log Cabin Road, a dirt road in the far northeastern part of the county

Source: NCEI, SHELDUS and The Jefferson Reporter

Most flood events resulted in flash flooding which washed out several roads and wooden bridges. The average flood depth cannot be calculated for the county since Initial Flood Hazard Base Maps (FHBM) do not exist. Data pinpointing the depth of floodwaters and exact locations of all washed out roads and bridges is limited. Based on interviews with the Glascock County Emergency Management Agency and committee members, most flooding occurs in poor drainage areas and along roadways with inadequate culverts. This flooding is minor and has not affected any businesses or homes in the county and floodwater quickly recedes after the rainfall has ended. The table above provides all known available data for the flood events. While severe flooding within the county is a very infrequent event, there is a potential for flooding. Flash flooding is the most prominent flooding event as riverbanks overflow due to rainfall. The GMIS flood hazard map assigns a flood zone rating of zero for unincorporated parts of the County, Edgehill, Gibson, and Mitchell where there are no identified or undesignated flood hazards. A hazard score of four has been assigned for known floodplain areas for unincorporated parts of the County, Edgehill, Mitchell, and Gibson.

The magnitude of a major flood event could have approximately 50% of the county experiencing some damage from flooding. While data was collected looking at 72 years of data, frequency rate was calculated using a 20-year hazard cycle per guidance from GEMA. Based on a 20-year hazard cycle the chance of an annual flooding event occurring is 5% for all of Glascock County. No prediction can be made for the three incorporated jurisdictions of the county, as no data is available. (*See Appendix A, Section I for, Historical Event Tables, Critical Facilities Reports, and Flood Maps and Appendix D for Hazard Frequency Tables and Worksheet 3A)*.

C. **Assets Exposed to Hazard and Estimates of Potential Loss:** For determination of assets exposed to risk, maps created from FEMA data and available parcel data were used. Based on FIRM, tax digests, and FEMA Worksheet #3a, it was determined that all or a portion of 105 structures/properties valued at more than $1.8 million and a population of 185 are in known flood prone areas within the County.

All 105 structures/properties have been identified by federal floodplain maps and/or parcel maps and not all structures/properties will experience damage from floods. The extent of

each flood varies according to the amount of rainfall in each area. If a complete loss of the 105 structures/properties located would result in approximately $1.8 million in damages assuming 100% loss, a 75% loss would represent approximately $ 1.35 million, a 50% loss would represent approximately $900,000, and a 25% loss would represent approximately $450,000.

The GMIS flood hazard map assigns a flood zone rating of zero for unincorporated parts of the County, Edgehill, Gibson, and Mitchell where there are no identified or undesignated flood hazards. A hazard score of three has been assigned for known floodplain areas for unincorporated parts of the County, Mitchell, and Gibson.

The table below shows the hazard scores assigned by the GMIS to critical facilities with replacement values content values and occupancy.

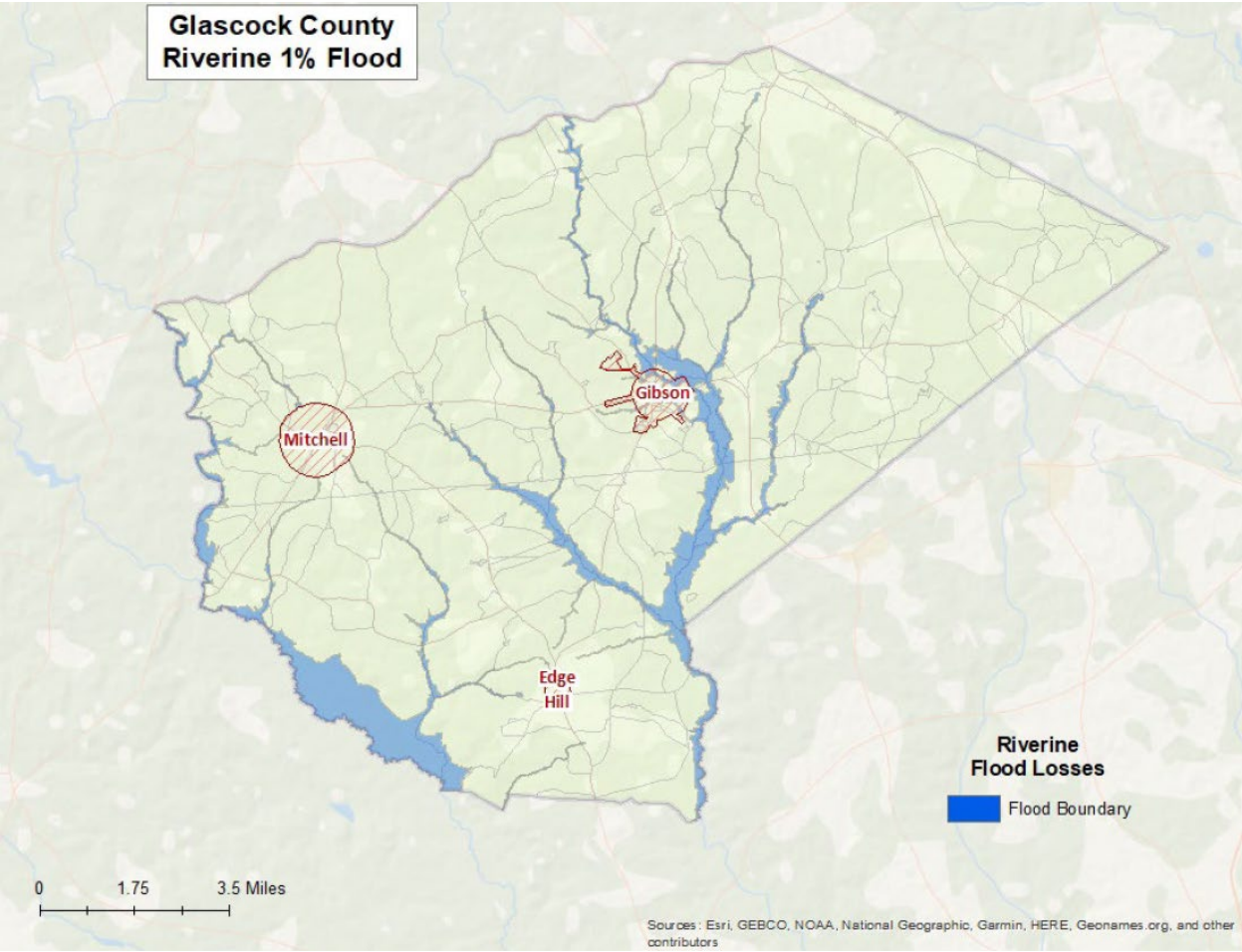
Jurisdiction	Flood Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Day	Night
Glascock County	1	8	$12,139,717	$1,150,000	675	3
Glascock County	0	8	$6,953,660	$2,580,000	134	2
Edge Hill	1	3	1,025,000	$400,000	5	0
Gibson	1	2	$4,300,000	$60,000	0	0
Gibson	0	2	$1,099,640	$500,000	50	0
Mitchell	1	9	$3,725,530	$633,500	51	0
Mitchell	0	1	$150,000	$350,000	0	0
TOTAL		**33**	**$29,393,547.00**	**$5,673,500.00**	**915**	**5**

The GMIS has no repetitive flooding NFIP properties and no NFIP mitigated property. There is no estimate for future structures since future development will be limited in known floodplains. *(See Appendix A, Section I and Appendix D).*

FEMA Hazus-MH Version 2.2 SP1 was used to analyze a probabilistic risk assessment of a 1% annual chance riverine flood event (100-Year Flood) for Glascock County. A copy of the complete report can be found in Appendix C. Land area covered by floodwaters of the base flood is identified as a Special Flood Hazard Area (SFHA). The county flood risk assessment analyzed at risk structures in the SFHA. The results of the Riverine 1% Flood Scenario revealed that buildings in County are vulnerable to flooding from events equivalent to the 1% riverine flood. The economic and social impacts from a flood of this magnitude can be significant. The Hazus analysis generated information to building loss, essential facility loss, food and shelter requirements and debris because of the Riverine 1% Flood Scenario. The results of this scenario are as follows:

- **Building Losses:** 17 residential properties damaged at a loss of $364,360 and 1 commercial building at a loss of $8,099. A total of 18 residential and commercial buildings at a loss of $372,459.
- **Essential Facility Losses:** No essential facilities are subject to damage.

- **Flood Shelter Requirements:** The scenario estimates 54 households are subject to displacement. Displaced households represent 161 individuals, of which 63 may require short-term publicly provided shelter.
- **Flood Debris:** Hazus-MH estimates that approximately 564 tons of debris might be generated by the flood. The model breaks debris into three general categories:
    - Finishes (dry wall, insulation, etc.) - 260 tons generated.
    - Structural (wood, brick, etc.) – 108 tons generated.
    - Foundations (concrete slab, concrete block, rebar, etc.) - 196 tons generated.



D. Land Use and Development Trends: The Glascock County Joint Comprehensive Plan 2020- 2025 presents future development scenarios for the County. The County should see limited growth in the future. Most new development will be residential. The county should strive to ensure no development in environmentally sensitive areas. According to the Georgia Governor's Office of Planning and Budget, Series 2020, the County's population is projected to decrease by more than 15% by 2050. A copy of the comprehensive plan on land use can be found in Appendix B.

E. Multi-Jurisdictional Concerns: During a natural hazard, it is imperative that all emergency personal can communicate with each other throughout the entire planning area. The County and its jurisdictions have numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The County and its emergency personnel are dependent on the private sector for towers to use for signals. If these towers are ever removed, the County will be without any adequate means to transmit signals. The County, along with the municipalities are aware of the need to develop communication capabilities that will serve their County. Since flooding has the potential to affect all of Glascock County, any mitigation steps taken related to flooding should be undertaken on a countywide basis to include Edge Hill, Gibson, and Mitchell.

F. Hazard Summary: Based on interviews, data from the NCEI covering 71 years, and the local paper, *The Jefferson Reporter/News and Farmer,* there have been three reported flooding events. All these events took place in the unincorporated areas of the county. These flooding events were the result of heavy rains. The rainfall resulted in flash flooding, washed out several roads and downed trees and power lines.

Based on a 20-year hazard cycle the chance of an annual flooding event occurring is 5% for all of Glascock County. Hazard frequency tables can be found in Appendix D. Severe flooding, although relatively rare in occurrence, has the potential to inflict significant damage. Mitigation of flood damage requires the community to know where flood-prone areas are, what roads and bridges may be affected, and which facilities fall below anticipated flood levels. The committee recognized the potential for losses caused by flooding and identified it as a hazard requiring mitigation measures.

Based on tax data, parcel, and flood maps, all, or a portion of 105 known structures/properties valued at approximately $1.8 million and a population of 185 are in known floodplains. The committee identified specific mitigation goals, objectives and action items related to flooding, which can be found in Chapter III, Section I.

SECTION II. DROUGHT

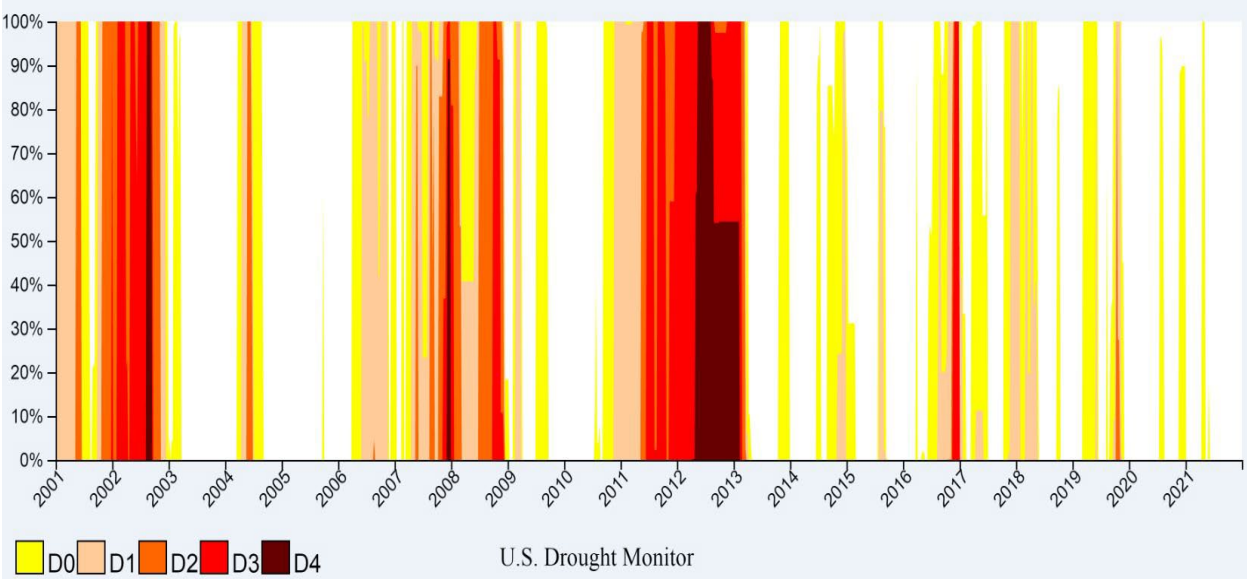
A. Hazard Identification: The committee reviewed historical data from the Palmer Drought Index, NCEI, DNR, USDA and GFC in researching drought conditions. Drought conditions are identified by a prolonged period of moisture deficiency. Climatologists and hydrologists use five indicators of drought: rainfall, soil moisture, stream flows, lake levels and groundwater levels. Drought conditions affect the cultivation of crops as well as water availability and water quality. Drought is also a key factor in wildfire development. Wildfire will be addressed in a separate HRV.

B. Hazard Profile: Drought is not spatially defined and has the potential to affect the entire planning area equally. Of the approximate 92,160 acres in the county, 96% are dedicated to agricultural and forestry uses. According to the USDA 2017 Census of Agriculture, Glascock County has 76 farms with a total acreage of 21,472 of agricultural land. Within the County, there are 1,103 heads of cattle. There have been 29 reported drought events over the last 71 years. A table of drought events can be found in Appendix A. Losses due to drought

conditions are primarily agricultural. No critical facilities have sustained any damage or functional downtime due to dry weather conditions.

According to the NCEI, there have been no reported drought events in Glascock County. The Palmer Index is most effective in determining long-term drought, a matter of several months, and is not as good with short-term forecasts (a matter of weeks). The Palmer Index uses a zero abnormally dry, and drought is shown in terms of minus numbers; for example, minus two is severe drought, minus three is extreme drought, and minus four is exceptional drought.

NCEI data for surrounding counties and a review of The Palmer Index (from https://www.NCEI.noaa.gov/temp-and-precip/drought/historical-palmers/) reveals there have been 25 drought events since 2000. One of the longest running droughts in recent history began in November 2010 and ended in April 2013. The County was in exceptional drought conditions from April 2012 until February 2013 and in extreme drought conditions from November 2011 to February 2013. The last drought ran from August 2016 to January 2017. The drought of 2016 the county ranged between a -2.00 (severe drought) and a -4.00 (exceptional drought) on the Palmer Index. The average based on historical data is a -3.00 on the Palmer Index. The graphic below shows drought conditions for January 2001 until July 2021.



Based on the weekly data from the Drought.gov:

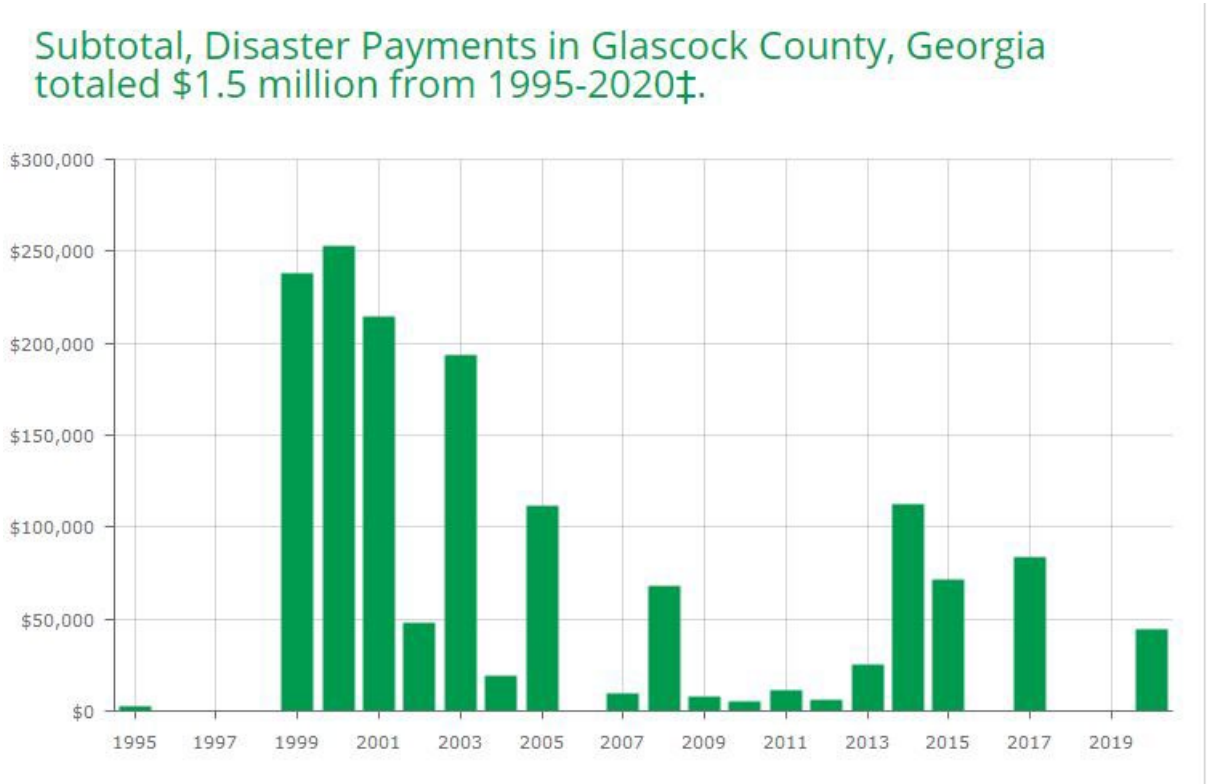
From January 2000 to July 2021 the county has experienced the following drought conditions:

- 672 weeks where all or a portion of the county has experienced of D0 - Abnormally Dry.

- 464 weeks where all or a portion of the county has experienced of D1 - Moderate Drought.
- 264 weeks where all or a portion of the county has experienced levels of D2 - Severe Drought.
- 160 weeks where all or a portion of the county has experienced levels of D3 - Extreme Drought; and
- 60 weeks where all or a portion of the county has experienced levels of D4 - Exceptional Drought. (US Drought Monitor and Extent Tables can be found in Appendix A.)

https://www.drought.gov/states/georgia/county/glascock

According to the USDA Farm Subsidies Database, there has been a total of $ $1,525,865 in disaster assistance from 1995-2020. The graph below depicts amounts and years of payments.



https://farm.ewg.org/progdetail.php?fips=13125&progcode=total_dis

Historical data is only for the county. A severe, prolonged drought would mainly affect the 96% of the county that makes up the timber and agriculture business. This could result in loss of crops, livestock and create the conditions for a major wildfire event. This would also have an impact on the incorporated cities, as water restrictions would be enforced. Based on a 20-year hazard cycle history there is a 100% chance of an annual drought event for the county. *(See Appendix D for Hazard Frequency tables and Worksheet 3a.)*

C. Assets Exposed to Hazard and Estimate of Potential Losses: Drought conditions typically pose little or no threat to structures; however, fires can occur because of dry weather. The greatest threat to assets in the county is to forestry and agricultural properties and livestock. No damage to critical facilities is anticipated because of drought conditions. Crop damage cannot be accurately quantified due to several unknown variables: duration of the drought, temperatures during the drought, severity of the drought, different crops require different amounts of rainfall, and different growing seasons. Based on FEMA Worksheet #3a the potential loss in agricultural and forestry properties for each jurisdiction is:

- Edge Hill has eight agricultural/forestry structures/properties valued at approximately $208,948 with an estimated population of three.
- Gibson has 30 agricultural/forestry structures/properties valued at approximately $829,325 with an estimated population of five.
- Mitchell has 52 agricultural/forestry structures/properties valued at approximately $1,575,723 with an estimated population of seven.
- Unincorporated Glascock County has 2,047 agricultural/forestry structures/properties valued at approximately $102 million with an estimated population of 51.

There are 2,337 agricultural/forestry properties in countywide valued at approximately $105 million with a population of 66 that are at the greatest risk due to a drought event *(See Appendix A, Section III for Historical Event Tables, Drought Extent Tables and Drought Maps and Appendix D for Hazard Frequency Tables and Worksheet 3A.*

D. Land Use and Development Trends: The County currently has no land use or development trends related to drought conditions. When drought conditions do occur, all jurisdictions follow the restrictions set forth by the Georgia DNR Drought Management Plan and the Statewide Outdoor Water Use Schedule. The Georgia Water Stewardship Act went into effect statewide on June 2, 2010. It allows daily outdoor watering for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants only between the hours of 4 p.m. and 10 a.m. by anyone whose water is supplied by a water system permitted by the Environmental Protection Division.

The following outdoor water uses also are allowed daily at any time of the day by anyone:

- Commercial Agriculture
- Alternative sources of water (grey water, rainwater, condensate, etc.)
- Irrigation of food gardens
- Irrigation of newly installed or reseeded turf for the first 30 days
- Drip irrigation or soaker hoses
- Hand watering with a shut off nozzle
- Water from a private well
- Irrigation of plants for sale
- Irrigation of athletic fields, golf courses or public recreational turf
- Hydroseeding

Outdoor water-use for any purposes other than watering of plants, such as power washing or washing cars, is still restricted to the current odd/even watering schedule.

- Odd-numbered addresses can water on Tuesdays, Thursdays, and Sundays.
- Even numbered and unnumbered addresses can water on Mondays, Wednesdays, and Saturdays.

Projected changes in land use based on the joint comprehensive plan, has minimal or no change. Limited growth or new development is expected in the County. The vulnerability in terms of future buildings, infrastructure and critical facilities located in the identified hazard areas is not known since there is no planned or approved future development. Thus, it is impossible to determine vulnerability in terms of future buildings, infrastructure and critical facilities. Current and future land-use tables, maps and projections are in Appendix B.

E. Multi-Jurisdictional Concerns: Agricultural losses associated with drought are more likely to occur in the rural, less concentrated areas of the county. Although Edge Hill, Gibson and Mitchell are less likely to experience drought related losses, they should not be excluded from mitigation considerations. Drought creates a deficiency in water supply that affects water availability and water quality. Droughts can and have severely affected private wells, municipal and industrial water supplies, agriculture, stream water quality, recreation at major reservoirs hydropower generation, navigation, and forest resources.

F. Hazard Summary: Drought is not spatially defined and affects the entire planning area equally. Droughts do not have the immediate effects of other natural hazards, but sustained drought can cause severe economic stress to not only the agricultural interests in Glascock County, but to the entire State of Georgia. The potential negative effects of sustained drought are numerous.

Historical data is available only for the county. Based on a 20-year cycle hazard history there is a 100% chance of an annual drought event in Glascock County. In addition to an increased threat of wildfires, drought can affect private wells, municipal and industrial water supplies, stream-water quality, water recreation facilities, hydropower generation, as well as agricultural and forest resources.

In summary, for Glascock County as a whole, there are 2,337 agricultural/forestry properties valued at approximately $105 million and include 4,342 heads of livestock and an estimated population of 66 that have the greatest potential to be damaged by drought. There is a population of 2,984 and approximately 8,841 structures/properties in the county with a value just slightly more than $276 million, which could be affected if wildfires break out due to drought conditions. Drought mitigation goals and objectives are in Chapter III, Section II.

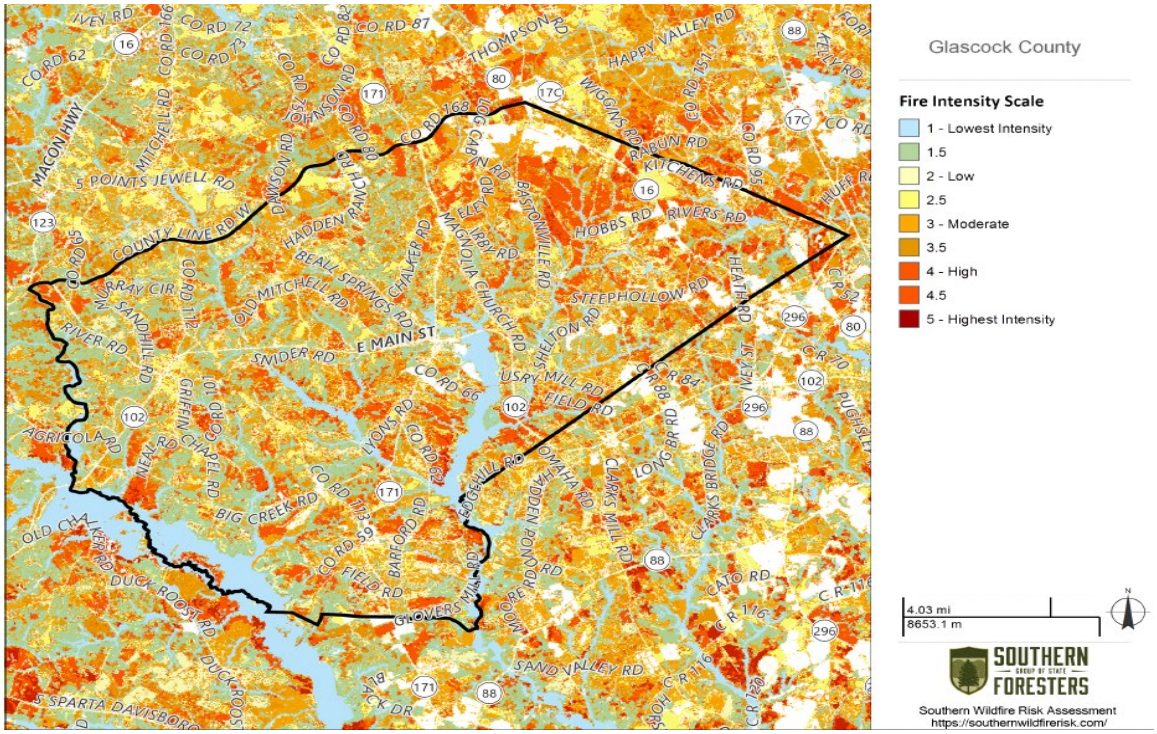
All water departments have adopted the Georgia Water Stewardship Act that went into effect statewide on June 2, 2010. It allows daily outdoor watering for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants only between the hours of 4 p.m. and 10 a.m. by anyone whose water is supplied by a water system permitted by the Environmental Protection Division. The enforcement of these restrictions helps to ensure an ample water supply during drought times. All citizens are informed of water restrictions as they occur.

SECTION III. WILDFIRE

A. Hazard Identification: A wildfire is any uncontrolled fire occurring on undeveloped land that needs fire suppression. The potential for wildfire is influenced by three factors: the presence of fuel, the area's topography, and air mass. There are three different classes of wildland fires. A surface fire is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire is usually started by lightning and burns on or below the forest floor. Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. Wildfires are usually signaled by dense smoke that fills the area for miles around. Wildfires by lightning have a very strong probability of occurring during drought conditions. Drought conditions make natural fuels (grass, brush, trees, dead vegetation, etc.) more fire prone.

B. Hazard Profile: Glascock County's consist of 144 square miles. The county is comprised of 92,450 acres, 96% of which are dedicated to agriculture and forestry. Given the right weather conditions and variables, wildfire - due to natural causes - creates a potential threat to residents and property in the planning area. The NCEI has never reported a significant wildfire event in Glascock County.

The committee reviewed historical data from the GFC, which is not found in the NCEI database, to research wildfire events. The GFC provides wildfire data on manmade and natural wildfire occurrences for the county as a whole and not for individual jurisdictions. This plan will address only natural disasters. According to Georgia Forestry data, from 1957 to 2021, there have been 925 fire events burning a total of 4,250 acres for an average extent of 4.6 acres. Of these 925 fire events, only 56 were a result of a natural hazard event that burned 457 acres. Based on best available data, the 56-wildfire events due to the natural hazard of lightning all occurred in the unincorporated areas of the county. There is no data available for the Edge Hill, Gibson, or Mitchell.



While data was collected looking at 64 years of data, frequency rate was calculated using a 20-year hazard cycle per guidance from GEMA. There were 22 wildfire events during the 20-year hazard cycle predicting a 110% chance of an annual wildfire due to a natural hazard event or statistically the county can expect one wildfire because of a natural hazard annually. The drier the condition the more susceptible the county is to wildfire (*See Appendix D)*.

- Hazard score of two (low wildfire risk)
  - Unincorporated Glascock County – approximately 1%
- Hazard score of one (very low wildfire risk)
  - Unincorporated areas of the county – approximately 85%
  - City of Gibson – 100% of the city
  - Town of Mitchell- 100% of the town
- Hazard score of zero (no houses, agriculture, water, or city)
  - Unincorporated areas of the county – approximately 15%
  - City of Edge Hill – approximately 100% of the city

C. Assets Exposed to Hazard and Estimate of Potential Losses: While wildfires are more likely to occur in the county outside of the incorporated areas. The committee concluded that wildfires present a threat to all existing buildings, infrastructure and critical facilities since wildfires can spread throughout the county and into the urban areas. Damages due to a wildfire event are more likely to occur in areas of the county where forestry and woodland are prevalent but does have the potential to spread into the incorporated areas and cause extensive damage. FEMA Worksheet #3a located in Appendix A shows the number and types of buildings found in Glascock County, as well as the value of these structures/properties and their population. The following assets by jurisdiction could potentially be exposed to wildfire hazard.

Jurisdiction	Number of Structure/Properties	Value $	Population
Glascock County (Unincorporated)	6,981	$235,866,135	1,963
Edge Hill	107	$1,221,959	22
Gibson	1,210	$28,273,156	869
Mitchell	543	$10,737,327	142
TOTAL FOR COUNTY	8,841	$276,098,673	2,996

Source: Glascock County Tax Assessor

The following table reveals all critical facilities in the county by jurisdiction, number of facilities, hazard score, replacement value, and occupancy exposed to wildfire hazard. A complete breakdown of each jurisdiction by hazard can be found in Appendix A.

Jurisdiction	Wildfire Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Daily	Night
Glascock County	4	1	$1,555,000	$350,000	0	0
Glascock County	3	11	$14,374,277	$3,180,000	779	5
Glascock County	2	1	$2,000,000	$0	0	0
Glascock County	1	1	$150,000	$100,000	0	0
Glascock County	0	2	$1,014,100	$100,000	30	0
Edge Hill	4	2	$325,000	$400,000	5	0
Edge Hill	3	1	$700,000	$0	0	0
Gibson	3	3	$2,599,640	$510,000	50	0
Gibson	2	1	$2,800,000	$50,000	0	0
Mitchell	4	2	$345,000	$35,000	0	0
Mitchell	3	7	$1,530,530	$948,500	51	0
Mitchell	0	1	$2,000,000	$0	0	0
TOTAL	**3**	**33**	**$29,393,547.00**	**$5,673,500.00**	**915**	**5**

According to FEMA Worksheet #3a, there are 8,841 structures/properties with a population of 2,996 with a value of slightly more than $276 million worth of assets countywide. If a wildfire started, it is not likely that all these structures/properties would be affected. *(See Appendix A, Section IV, for Historical Event Tables, Critical Facilities Reports and Wildfire Map, and Appendix D for Hazard Frequency Table and Worksheet 3A).*

D. Land Use and Development Trends: Glascock County currently has no land use or development trends related to wildfire conditions. Land use codes do provide for fire protection to any proposed major and minor developments connected to the public water supply system, and minimum fire flows shall be computed based on standards promulgated by the Glascock County Fire Services. For those proposed developments that will not have

immediate access to the public water supply system, such standards and computations should be based on the National Fire Protection Association *Standards on Water Supply for Suburban and Rural Fire Fighting*.

E. Multi-Jurisdictional Concerns: Wildfire has the potential to affect the entire county. As a result, all mitigation steps taken related to wildfire should be undertaken by Glascock County, Edge Hill, Gibson, and Mitchell. Also, during a natural hazard, it is imperative that all emergency personal can communicate with each other throughout the entire planning area. Another concern is the lack of available data for the county and individual jurisdictions. A database needs to be created and maintained that provides information on all past and future occurring wildfire events.

F. Hazard Summary: Glascock County's consist of 144 square miles. The county is comprised of 92,450 acres where 96% are dedicated to agricultural and forestry. The NCEI has never reported a significant wildfire event in Glascock County. According to Georgia Forestry data, from 1957 to 2021, there have been 925 fire events burning a total of 4,250 acres for an average extent of 4.6 acres. Of these 925 fire events, only 56 were a result of a natural hazard event that burned 457 acres.

According to FEMA Worksheet #3a, there are 8,841 structures/properties with a population of 2,996 with a value of slightly more than $276 million worth of assets countywide. Mitigation Goals and Objectives concerning wildfires are in Chapter III, Section III.

The County continues to follow GFC guidelines to service the construction of firebreaks around forests and structures, maintain fuel breaks along abandoned roadbeds and recommends a defensible space (30-ft minimum setbacks) between buildings and strictly follow guidelines for control burns and permits.

SECTION IV. TORNADOES

A. Hazard Identification: The committee reviewed historical data from the county's own weather database, the NCEI, SHELDUS™, newspapers and citizen interviews in researching the past effects of severe weather. The month of February marks the beginning of the severe weather season in the South, which can last until the month of August.

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm or the result of a hurricane and is produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. Tornados are among the most unpredictable and destructive of weather phenomena and can strike at any time of the year if the essential conditions are present. The damage from a tornado is a result of the high wind velocity and wind-blown debris. The positions of the subtropical and polar jet streams often are conducive to the formation of storms in the Gulf region. The table below shows the original Fujita Scale and the Enhanced Fujita Scale (in use since 2007) to rate the intensity of a tornado by examining the damage caused by the tornado after it has passed over a manmade structure.

FUJITA SCALE			DERIVED EF SCALE		OPERATIONAL EF SCALE	
F Number	Fastest 1/4-mile (mph)	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	**EF Number**	**3 Second Gust (mph)**
0	40-72	45-78	0	65-85	**0**	**65-85**
1	73-112	79-117	1	86-109	**1**	**86-110**
2	113-157	118-161	2	110-137	**2**	**111-135**
3	158-207	162-209	3	138-167	**3**	**136-165**
4	208-260	210-261	4	168-199	**4**	**166-200**
5	261-318	262-317	5	200-234	**5**	**Over 200**

Source: NOAA

B. Hazard Profile: Since the exact time and location of a tornado is not always predictable, all of Glascock County is vulnerable. Based on historic data, there have been five reported tornados in the planning area: five in the unincorporated areas of the county with one tornado traveling into the city limits of Gibson. There have been no reported tornadoes in Edge Hill or Mitchell.

One of the worst tornadoes recorded in Georgia history occurred on March 20, 1875. According to the Tornado Project, 25 people were killed and 65 injured by a tornado that started in Hancock County and moved across Warren, McDuffie, and Columbia counties. While that tornado did not move into Glascock County, it indicates that Glascock County is not immune to severe, damaging tornadoes. In more recent history, there have been four tornadoes that have affected Glascock County, causing nearly $300 thousand in property damage.

Tornados tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. Using a 20-year hazard cycle, frequency tables calculate an annual chance for a tornado event at:

- 20% for Glascock County as a whole
- 20% for Unincorporated Glascock County
- 5% for Gibson
- No calculation is available for Edge Hill or Mitchell

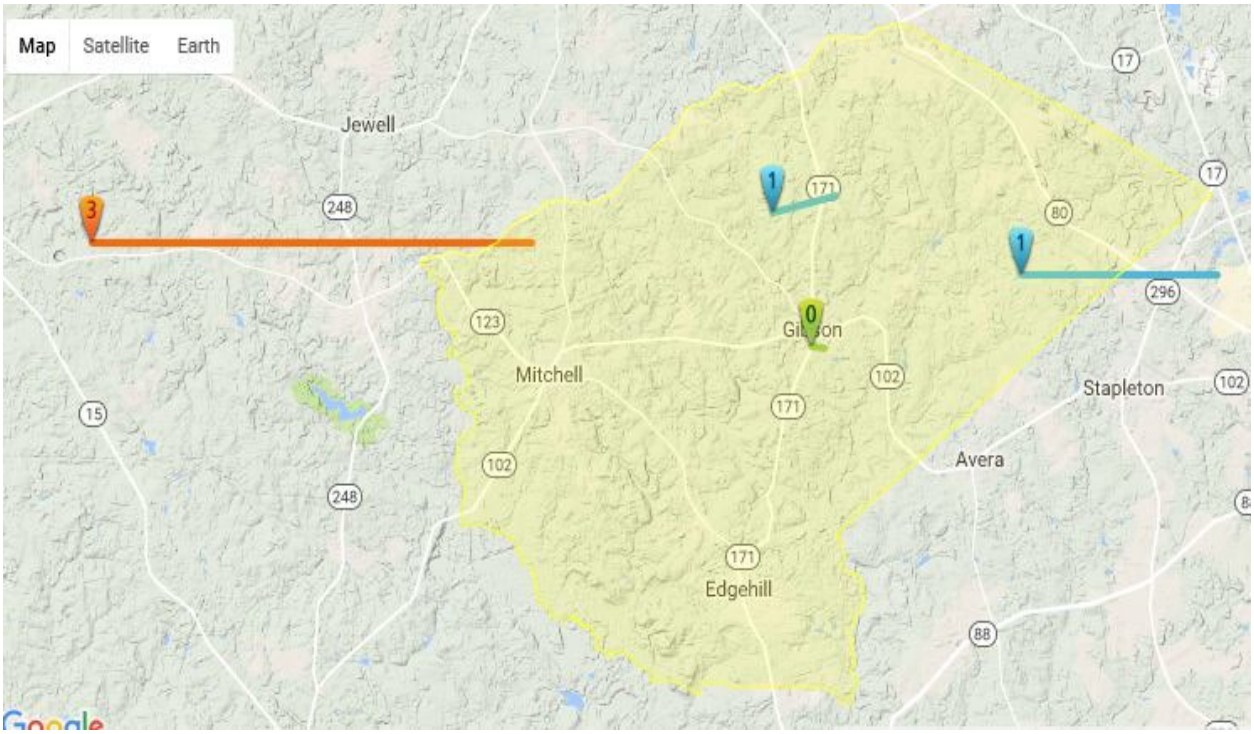
Hazard frequency tables for individual jurisdictions are in Appendix D.

The following table shows the event, severity and estimated cost of damages reported. The map from the Georgia Tornado Projects shows the paths taken by the storms (*See Appendix A, Section I and Appendix D)*.

Date	Location	Deaths	Inj	Fujita	PD	CrD	Event Narrative
03/20/1875	Unincorporated Glascock County	12					None Reported
02/18/2009	Unincorporated Glascock County	0	0	0	25k	0	EF0 tornado had touched down just southeast of the city of Gibson and traveled approximately 1000 yards on an east-southeastward track. with a

Date	Location	Deaths	Inj	Fujita	PD	CrD	Event Narrative
							maximum path width of 150 yards with maximum winds of 100 mph. A number of large pine trees were uprooted or snapped along the path of the tornado. However, no structural damage noted.
04/10/2009	Gibson	0	0	0	4k	0	The tornado had a maximum path width of 150 yards with maximum winds of 100 mph. Several large pine trees were uprooted or snapped along the path of the tornado. No structural damage was noted
04/10/2009	Unincorporated Glascock County	0	0	1	2k	0	an EF1 touched down in the far eastern part of the county, approximately 4.5 miles east-northeast of Gibson. The maximum path width 200 yards with maximum winds estimated at 110 mph. Damage within county from this tornado was confined to several downed trees.
03-05-2013	Unincorporated Glascock County	0	0	1	250k		an EF-1 tornado touched down northwest of Gibson. Numerous trees were snapped and uprooted along the 1.5-mile path. As the tornado crossed Georgia State Highway 171, it ripped off 20 percent of the metal roof from a home residence, tossed a camper trailer 50 feet, and knocked two mobile homes off their foundations. The occupant of one home had to be rescued. The worst damage occurred near the intersection of Georgia Highway 171 and Magnolia Church Road where 60 percent of the Magnolia Baptist Church roof was ripped off, and the brick-walled fellowship hall on the west end of the church was completely destroyed. Numerous tombstones and other structures at the adjoining cemetery near the church were also damaged

Sources: Interviews, The Jefferson Reporter, Georgia Tornado History Project, NCEI and SHELDUS™



Source: Georgia Tornado History Project http://www.tornadohistoryproject.com/tornado/Georgia

C. **Assets Exposed to Hazard and Estimate of Potential Losses**: In evaluating assets exposed to the natural hazard, the committee determined that all critical facilities, as well as all public, private, and commercial property, are susceptible to tornados. The GMIS has the 70% of the county with a wind hazard score of two, where wind speed is between 90 to 99 mph. The remaining 30% with a hazard score of one, where wind speed is less than 90 mph. Edge Hill, Gibson and Mitchell have a hazard score of two. The table below provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Jurisdiction	Number of Structure/Properties	Value $	Population
Glascock County (Unincorporated)	6,981	$235,866,135	1,963
Edge Hill	107	$1,221,959	22
Gibson	1,210	$28,273,156	869
Mitchell	543	$10,737,327	142
TOTAL FOR COUNTY	**8,841**	**$276,098,673**	**2,996**

Source: Glascock County Tax Assessor

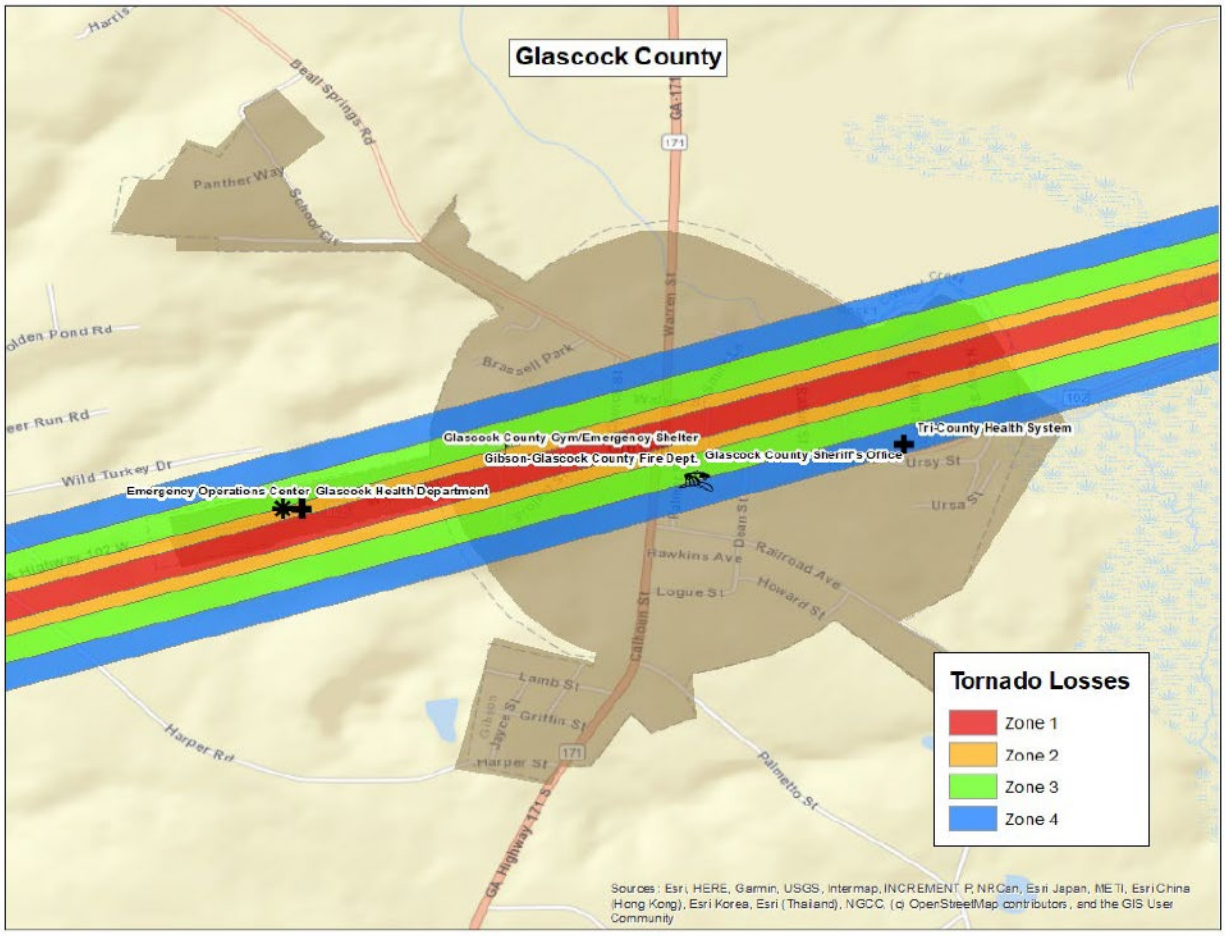
Of the 33 critical facilities, 31 have a wind hazard score of two placing the critical facilities in Zone IV which has a wind speed of 90 to 99 mph and the remaining two have a hazard score of zero. GMIS critical facility reports for wind and FEMA Worksheet #3a are in Appendix A for each individual jurisdiction and the county as a whole. The table below shows the number of critical facilities by jurisdictions, hazard score, replacement value, content value, and occupancy.

Jurisdiction	Wind Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Daily	Night
Glascock County	2	15	$18,998,377	$3,580,000	801	3
Glascock County	0	1	$95,000	$150,000	8	2
Edge Hill	2	3	$1,025,000	$400,000	5	0
Gibson	2	4	$5,399,640	$560,000	50	0
Mitchell	2	9	$3,725,530	$633,500	51	0
Mitchell	0	1	$150,000	$350,000	0	0
TOTAL		**33**	**$29,393,547.00**	**$5,673,500.00**	**915**	**5**

A hypothetical tornado scenario was run using an EF3 tornado modeled to illustrate the potential impacts of tornadoes of this magnitude in the county. The analysis estimated that approximately 224 buildings could be damaged, with estimated building losses of $9 million dollars. The building losses are an estimate of building replacement costs multiplied by the percentages of damage. The table below shows estimated building losses by occupancy type.

Occupancy Classification	Buildings Damaged	Building Losses
Commercial	26	$552,517
Education	3	$5103,025
Government	1	$37,225
Industrial	14	$216,068
Residential	180	$8,147,657
Total	**224**	**$9,026,492**

There were six essential facilities located in the tornado path – one school, one fire station, one police station, one Emergency Operations Center, and two care facilities.



Estimated Essential Facilities Damaged

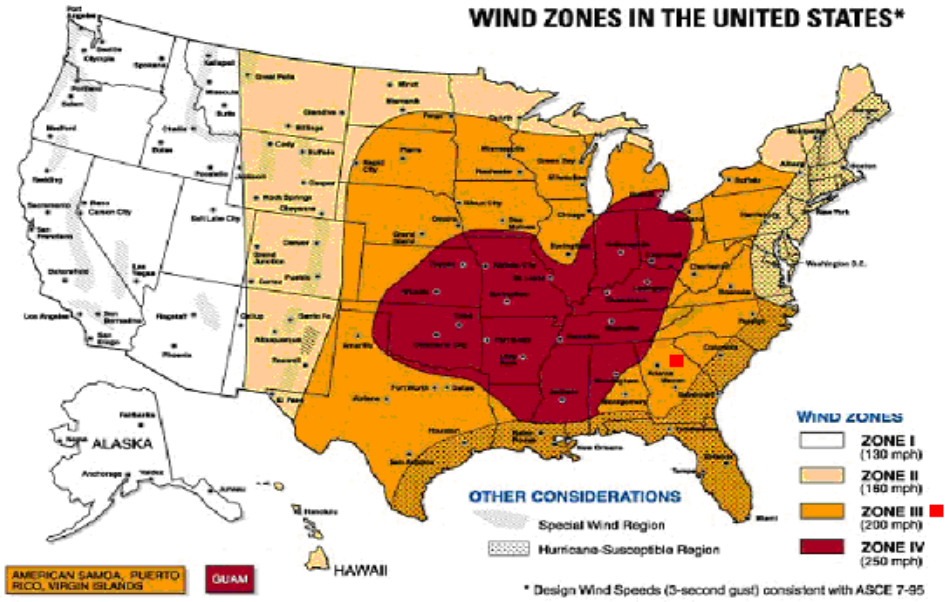
Facility	Amount of Damage
Glascock County Gym - Emergency Shelter	Major Damage
Emergency Operations Center	Major Damage
Glascock County Health Dept.	Major Damage
Glascock County Sheriff's Office	Minor Damage
Gibson-Glascock County Fire Department	Minor Damage
Tri-County Health System	Minor Damage

Depending on the time of day, a tornado strikes as depicted in this scenario could result in significant injury and loss of life. In addition, arrangements would have to be made for the continued education of the students in another location. A complete copy of the FEMA Hazus-MH Version 2.2 SP1 can be found in Appendix C.

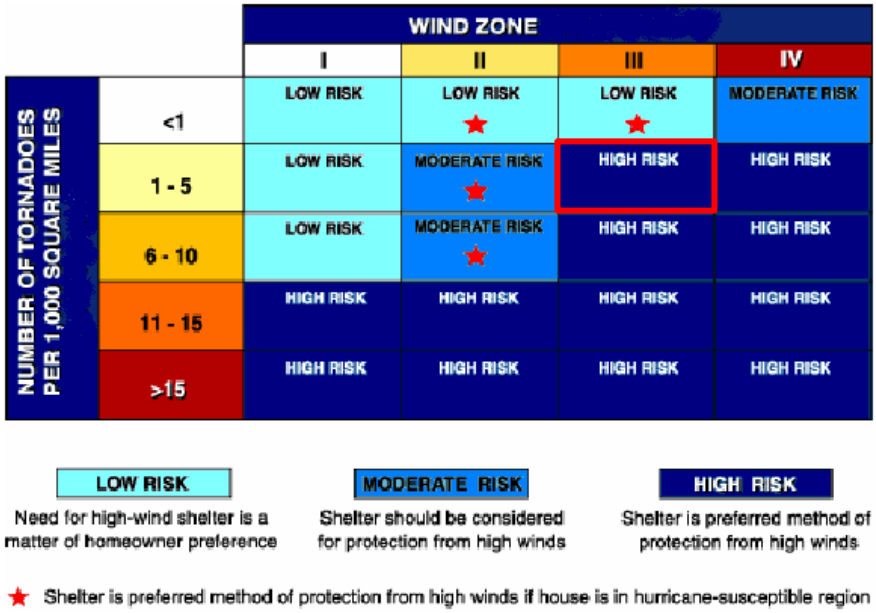
D. Land Use & Development Trends: Glascock County is located in FEMA wind zone III, which is associated with 200-mph wind speeds. Currently, the county has no land use or development trends related to tornados, tropical storm, thunderstorm winds, lightning, or

hail events. Information on current and future land use projections can be found in Appendix B.

E. Multi-Jurisdictional Concerns – All of Glascock County has the same design wind speed of 200 mph as determined by the American Society of Civil Engineers (ASCE) as evidenced by the map and table below.



Wind zones in the United States



During a natural hazard, it is imperative that all emergency personal can communicate with each other throughout the entire planning area. The county and its jurisdictions have numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The county and its emergency personnel are dependent on the private sector for towers to use for signals. If these towers are ever removed, the county will be without any adequate means to bounce signals.

The entire county has the potential to be affected by tornados. As a result, any mitigation steps should be considered on a countywide basis to include Edge Hill, Gibson, and Mitchell. A concern is the lack of available data for the county and the city. There is a need for a database to provide information on all past and future severe weather events.

F. Hazard Summary: Since the previous plan, there has been limited new development and no increase in population that would affect the overall vulnerability of the community to this hazard. This has been no new adoption of development or building regulations to increase or decrease the overall vulnerability to severe weather events.

Tornados do not touch down frequently; however, the unpredictability and the potential for excessive damage caused by tornados makes it imperative that mitigation measures identified in this plan receive full consideration. Based on historical data, there have been five reported tornados in the planning area. There have not been any reports of tornadoes since the last update. Since 1950, there has been approximately $280,000 in property damage and crop damage as well as three deaths from tornadoes. Tornados tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. There is a 20% annual chance of a tornado event at for Glascock County as a whole.

To summarize, there are 8,841 structures/properties with a population of 2,996 with a value of slightly more than $276 million worth of assets countywide. A breakdown of information for individual jurisdictions can be found in Appendix A and Appendix D. Specific mitigation actions for tornados, tropical storms, thunderstorm winds, lightning and hail events are identified in Chapter III, Section IV.

SECTION V. TROPICAL STORMS

A. Hazard Identification: The committee reviewed historical data from NOAA, NCEI, SHELDUS™, newspapers, and citizen interviews in researching the past effects of Tropical Storms in McDuffie County. Tropical Storms are an organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39–73 MPH (34–63 knots). In this area they generally occur because of a hurricane or tropical system that has come inland.

Tropical storms begin as tropical depressions over warm oceanic water, then develop into tropical cyclones. A tropical cyclone life span can last from a few hours to close to three weeks. Most tropical cyclones last approximately five to ten days. If the winds are under or up to 39 mph, it is a tropical depression. If winds speeds are between 39 to 73 mph, it is considered a tropical storm. Any storm with over 74 mph wind speed is called a hurricane. As a rule, hurricanes occur in the western Atlantic Ocean when warm, humid conditions are prevailing. Hurricanes are usually accompanied by excessive rain, thunder and lightning. When hurricanes make landfall, they typically slow down. Unfortunately, at that time, another danger often appears – tornados. A storm surge, which is an abnormal rise in water levels in a coastal area, usually occurs with tropical storms. McDuffie County is not likely to experience a hurricane or storm surges.

Category	Wind Speed	Expected Damage
One	74-95 mph	No real damage to building structures; primarily damage to trees, shrubbery, unanchored manufactured homes
Two	96-110 mph	Some roofing material, door, window damage; considerable damage to vegetation, manufactured homes.
Three	111-130 mph	Some structural damage to small residences and utility buildings; manufactured homes destroyed.
Four	131-155 mph	Some complete roof structure failure on small residences; more extensive curtain wall failures.
Five	155 mph up	Complete roof failure on many residences and industrial buildings; some complete building failures with small utility buildings blown over or away.

B. Hazard Profile: Tropical storms generally affect the entire county, making all of Glascock County vulnerable to heavy rainfall, strong wind, and the potential spin off tornadoes. Based on 71 years of historical data there have been 24 tropical storms reported in McDuffie County by NOAA, NCEI, HURDAT, the National Weather Service in Atlanta, GA, and SHELDUS™. Four tropical storms have affected McDuffie since the last update. On October

29, 2020, the remnants of Tropical Storm Zeta moved across the county producing wind gusts between 30 and 40 mph for several house. Small trees were downed in the county, but no damage was reported.

Based on a 20-year hazard frequency cycle, there is a 90% chance of an annual tropical storm event for all jurisdictions (*See Appendix D).* Table 2.13 provides historical data on tropical storm events.

Details	Date	PrD	CrD
Result of Tropical Storm Arlene	6/2/1959	0.00K	0.00K
Result of Hurricane Cleo	8/28/1964	1.00k	0.00K
Result of Tropical Storm Abby	6/8/1968	0.00K	0.00K
Result of Hurricane Agnes	6/19/1972	0.00K	0.00K
Result of Tropical Storm Marco	10/12/1990	0.00K	0.00K
Result of Tropical Storm Helene	9/23/2000	0.00K	0.00K
Result of Tropical Storm Allison	6/13/2001	0.00K	0.00K
Result of Tropical Storm Hannah	09/14/2002	0.00K	0.00K
Result of Tropical Depression Bill	07/01/2003	0.00K	0.00K
Result of Hurricane Francis	09/06/2004	0.00K	0.00K
Result of Hurricane Ivan	09/16/2004	0.00K	0.00K
Result of Hurricane Jeanne	09/26/2004	0.00K	0.00K
Result of Tropical Storm Arlene	06/12/2005	0.00K	0.00K
Result of Hurricane Dennis	07/10/2005	0.00K	0.00K
Result of Hurricane Katrina	08/29/2005	0.00K	0.00K
Result of Tropical Storm Tammy	10/05/2005	0.00K	0.00K
Result of Tropical Storm Fay	08/21/2008	0.00K	0.00K
Result of Hurricane Ida	11/10/2009	0.00K	0.00K
Result of Tropical Storm Lee	09/04/2011	0.00K	0.00K
Result of Hurricane Irma	09/11/2017	75.00K	0.00K
Result of Hurricane Michael	10/10/2018	0.00K	0.00K
Result of Hurricane Fay	07/07/2020	0.00K	0.00K
Result of Hurricane Sally	09/17/2020	0.00K	0.00K
Result of Tropical Storm Zeta	10/29/2020	0.00K	0.00K

C. **Assets Exposed to Hazard and Estimates of Potential Loss:** In evaluating assets exposed to tropical storms, the committee determined that all critical facilities, as well as all public, private, and commercial property, are susceptible to tropical storms. The table below provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Jurisdiction	Number of Structure/Properties	Value $	Population
Glascock County (Unincorporated)	6,981	$235,866,135	1,963
Edge Hill	107	$1,221,959	22
Gibson	1,210	$28,273,156	869
Mitchell	543	$10,737,327	142
TOTAL FOR COUNTY	**8,841**	**$276,098,673**	**2,996**

Of the 33 critical facilities, 31 have a wind hazard score of two, placing the critical facilities in Zone IV which has a wind speed of 90 to 99 mph and the remaining 2 have a hazard score of zero. GMIS critical facility reports for wind and FEMA Worksheet #3a are located in Appendix A for each individual jurisdiction and the county as a whole. The table below shows the number of critical facilities by jurisdictions, hazard score, replacement value, content value, and daily occupancy.

Jurisdiction	Wind Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Daily	Night
Glascock County	2	15	$18,998,377	$3,580,000	801	3
Glascock County	0	1	$95,000	$150,000	8	2
Edge Hill	2	3	$1,025,000	$400,000	5	0
Gibson	2	4	$5,399,640	$560,000	50	0
Mitchell	2	9	$3,725,530	$633,500	51	0
Mitchell	0	1	$150,000	$350,000	0	0
TOTAL		**33**	**$29,393,547.00**	**$5,673,500.00**	**915**	**5**

GMIS critical facility reports for wind can be found in Appendix A behind the Tropical Storm documentation. FEMA Worksheet #3a is located in Appendix D.

D. Land Use and Development Trends: Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard. Glascock County is in FEMA wind zone III, which is associated with 200-mph wind speeds. Currently, the county has no land use or development trends related to tropical storms. Information on current land use and future land use projections can be found in Appendix B

E. Multi-Jurisdictional Concerns: During a natural hazard, it is imperative that all emergency management personal can communicate with each other throughout the entire planning area. The county and its jurisdictions have numerous dead spots throughout the area due to lack of adequate communication equipment. The county and its jurisdictions are dependent on the private sector for towers to use for signals. If these towers are damaged or removed, the county will be without adequate means to communicate. The county and its jurisdictions are aware of the need to develop communication capabilities that will serve the community.

The entire county has the potential to be affected by tropical systems. As a result, any mitigation steps taken related for these severe weather events should be considered on a countywide basis to include Edge Hill, Gibson, and Mitchell. A concern is the lack of available data for the county and the city. There is a need for a database to provide information on all past and future for the five severe weather events.

F. Hazard Summary: In the last 70 years there have been 19 tropical storms that have affected the county with heavy rainfall and strong wind. Although there has been no property or crop damage since the last update, roads have been flooded and downed trees have caused scattered power outages across the county. Based on a 20-year hazard frequency cycle, there is a 90% chance of an annual tropical storm event for all jurisdictions (See Appendix D).

To summarize, there are approximately 8,841 structures/properties in the county totaling nearly $276 million. Of the 33 critical facilities located in the county, 31 have a hazard score of two. If any of the critical facilities were to be damaged from a tropical storm, it would likely cause a serious disruption to society and the local economy.

SECTION VI. SEVERE WEATHER (Wind, Hail, and Lightning)

A. Hazard Identification: The committee reviewed historical data from the NCEI, SHELDUS™, newspapers and citizen interviews in researching the past effects of severe weather events in Glascock County. The month of February marks the beginning of the severe weather season in the South, which can last until the month of August. Three types of severe weather were identified by the mitigation team: (1) thunderstorm winds, (2) hail, and (3) lightning.

The first severe weather event, thunderstorm winds, can cause death, injury, power outages, property damage, disrupt telephone service, and severely affect radio communications which may seriously impair the emergency management capabilities of the affected jurisdictions.

Thunderstorm winds arise as a result from convection (with or without lightning), with speeds of at least 50 knots (58 mph), or winds of any speed producing a fatality, injury, or damage. Severe thunderstorms develop powerful updrafts and downdrafts. An updraft of warm, moist air helps to fuel a towering cumulonimbus cloud reaching tens of thousands of feet into the atmosphere. A downdraft of relatively cool, dense air develops as precipitation begins to fall through the cloud. Winds in the downdraft can reach more than 100 miles per hour. When the downdraft reaches the ground, it spreads out forming a gust front: the strong wind that kicks up just before the storm hits. As the thunderstorm moves through the area, the full force of the downdraft in a severe thunderstorm can be felt as horizontal, straight-line winds with speeds well over 50 miles per hour. Straight-line winds are often responsible for most of the damage associated with a severe thunderstorm. Damaging straight-line winds occur over a range of scales. At one extreme, a severe single-cell thunderstorm may cause localized damage from a microburst, a severe downdraft extending not more than about two miles across. In contrast, a powerful thunderstorm complex that develops as a squall line can produce damaging winds that carve a path as much as 100 miles wide and 500 miles long.

The second severe weather event is hail. Hailstones are created when strong rising currents of air called updrafts carry water droplets high into the upper reaches of thunderstorms where they freeze. These frozen water droplets fall back toward the earth in downdrafts. In their descent, these frozen droplets bump into and coalesce with unfrozen water droplets and are then carried back up high within the storm where they refreeze into larger frozen drops. This cycle may repeat itself several times until the frozen water droplets become so large and heavy that the updraft can no longer support their weight. Eventually, the frozen water droplets fall back to earth as hailstones.

Hail can also be a destructive aspect of severe thunderstorms. Hail causes more monetary loss than any other type of thunderstorm-spawned severe weather in the United States, annually producing about one billion dollars in crop damage. Storms that produce hailstones only the size of a dime can produce dents in the tops of vehicles, damage roofs, break windows and cause significant injury or even death.

The third type of severe weather events is lightning. Lightning is a giant spark of electricity in the atmosphere between clouds, the air, or the ground. In the early stages of development, air acts as an insulator between the positive and negative charges in the cloud and between the cloud and the ground. When the opposite charges build up enough, this insulating capacity of the air brakes down and there is a rapid discharge of electricity that we know as lightning. The flash of lightning temporarily equalizes the charged regions in the atmosphere until the opposite charges build up again.

Lightning can occur between opposite charges within the thunderstorm cloud (intra-cloud lightning) or between opposite charges in the cloud and on the ground (cloud-to-ground lightning).

Lightning is one of the oldest observed natural phenomena on earth. It can be seen in

volcanic eruptions, extremely intense forest fires, surface nuclear detonations, heavy snowstorms, in large hurricanes, and obviously, thunderstorms.

B. Hazard Profile: Severe thunderstorm winds, hail, and lightning can affect the entire county given the right conditions and movement of the storms. While severe thunderstorms can occur at any time of the year, the majority occur during the spring and summer months. The peak month for damaging winds in the region is July while April is the peak month for large hailstorms. The most likely time of occurrence for severe weather events is during the mid-afternoon through early evening hours.

There have been 21 severe thunderstorm wind events recorded in the last 71 years with nearly $230 thousand in property and crop damages reported with no reports of injuries or fatalities. Wind speeds of 50 to 75 knots have been reported with these events. There have been no reports of severe thunderstorms causing wind damage since the last plan update. Using data from the NCEI and SHELDUS™ databases, the 20-year hazard cycle calculated an annual chance for severe thunderstorm wind at:

- 85% for Glascock County
- 25% chance for unincorporated Glascock County
- 10 % chance for Edge Hill
- 30 % chance for Gibson
- 30% chance for Mitchell

The table below breaks down the thunderstorm events by jurisdiction. A complete table of thunderstorm wind events can be found in Appendix A.

Location	# of Events	County-Wide Events*	Total # of events per jurisdiction
Glascock County (Unincorporated)	4	5	9
Edge Hill	1	5	6
Gibson	6	5	11
Mitchell	5	5	10
TOTAL FOR COUNTY	**16**	**5**	**21**

The second severe weather type is hail. In the last 70 years, there have been 28 hail events reported to the NCEI and SHELDUS™ databases with nearly $20,000 in property damage. One of the worst hailstorms in Glascock County occurred in Edge Hill on May 20,2008 when 175-inch hail caused $20,000 in damage. Using a 20-year hazard cycle, frequency table calculates an annual chance for a hail event at:

- 5% in Unincorporated Glascock County
- 5% in Edge Hill
- 10% in Gibson

In the past 20 years, there has been no hail reported in Mitchell.

Overall, there is a 20% chance that an annual hail event in McDuffie County. A complete list of all hazards is in Appendix A and hazard frequency tables for individual jurisdictions are in Appendix A.

Location	# of Events	County-Wide Events*	Total # of events per jurisdiction
Glascock County (Unincorporated)	1	15	16
Edge Hill	3	15	18
Gibson	8	15	23
Mitchell	1	15	16
TOTAL FOR COUNTY	**13**	**15**	**28**

The third severe weather type of lightning. During the spring and summer months the county experiences numerous storms that can often produce lightning. The VAISALA National Lightning Detection Network ranks Georgia as one of the most lightning prone states in the country. In 2020, Georgia was ranked #11 with 5,533,354 cloud to ground lightning strikes. According to the Georgia Forestry Commission, there have been 56 lightning strikes recorded in the past 64 years, resulting in wildfires that burned nearly 460 acres.

While data was collected looking at 64 years of data, hazard frequency rate was calculated using a 20-year hazard cycle per guidance from GEMA. Based on a 20-year hazard cycle, the annual chance for a lightning strike is 110%.

C. **Assets Exposed to Hazard and Estimates of Potential Loss:** In evaluating assets exposed to severe thunderstorm winds, hail, and lightning, the committee determined that all critical facilities, as well as all public, private, and commercial property, are susceptible to these severe weather events. The table below provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Jurisdiction	Number of Structure/Properties	Value $	Population
Glascock County (Unincorporated)	6,981	$235,866,135	1,963
Edge Hill	107	$1,221,959	22
Gibson	1,210	$28,273,156	869
Mitchell	543	$10,737,327	142
TOTAL FOR COUNTY	**8,841**	**$276,098,673**	**2,996**

Of the 33 critical facilities, 31 have a wind hazard score of two placing the critical facilities in Zone IV which has a wind speed of 90 to 99 mph and the remaining two have a hazard score of zero. GMIS critical facility reports for wind and FEMA Worksheet #3a are in Appendix A for each individual jurisdiction and the county. The table below shows the

number of critical facilities by jurisdictions, hazard score, replacement value, content value, and occupancy.

Jurisdiction	Wind Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Daily	Night
Glascock County	2	15	$18,998,377	$3,580,000	801	3
Glascock County	0	1	$95,000	$150,000	8	2
Edge Hill	2	3	$1,025,000	$400,000	5	0
Gibson	2	4	$5,399,640	$560,000	50	0
Mitchell	2	9	$3,725,530	$633,500	51	0
Mitchell	0	1	$150,000	$350,000	0	0
TOTAL		**33**	**$29,393,547.00**	**$5,673,500.00**	**915**	**5**

GMIS critical facility reports for wind can be found in Appendix A. FEMA Worksheet #3a is located in Appendix D.

D. Land Use and Development Trends: Since the previous plan was approved, there have not been any new developments, regulations, programs, or other changes in the community that would either increase or decrease the community's overall vulnerability to this hazard. Glascock County is located in FEMA wind zone III, which is associated with 200-mph wind speeds. Currently, the county has no land use or development trends related to thunderstorm winds, hail, or lightning events. Information on current land use and future land use projections can be found in Appendix B.

E. Multi-Jurisdictional Concerns: All of Glascock County has the same design wind speed of 200 mph as determined by the American Society of Civil Engineers (ASCE) as evidenced by the map below.

F. Hazard Summary: Since the previous plan, there has been limited new development and not increase in population that would affect the overall vulnerability of the community to these hazards. This has been no new adoption of development or building regulations to increase or decrease the overall vulnerability to these severe weather events.

Overall, severe weather in the form of thunderstorm winds and lightning, poses one of the greatest threats to Glascock County in terms of property damage, injuries, and loss of life. Therefore, the committee recommends mitigation measures identified in this plan should be aggressively pursued.

SECTION VII. WINTER STORMS

A. Hazard Identification: Southeastern snow or ice storms often form when an area of low pressure moves eastward across the northern Gulf of Mexico. To produce a significant winter storm in the south, not only must temperatures be cold enough, but there must also be enough moisture in the atmosphere to produce adequate precipitation. A major winter storm can last for several days and be accompanied by ice and freezing rain, high winds, heavy snowfall,

and cold temperatures. These conditions can make driving very dangerous, as well as bring down trees and power lines.

B. Hazard Profile: Winter storms are not spatially defined and affect the entire planning area equally. The committee researched historical data from the NCEI, SHELDUS™, SERCC, as well as information from past newspaper articles relating to winter storms. There have been 12 winter storm events recorded in the county over the last 71 years with more than $100-thousand in property and crop damage.

The most recent winter storm occurred on January 17, 2018, when .25 inches of snow fall across the county. This event did not cause any problems other than some minor travel issues.

The most impactful winter storm occurred on February 11-13, 2014, when up to 1½ inches of ice and 2 inches of snow and sleet across the area. The heavy sleet and snow overloaded branches that came down on top of power lines when the storm hit late Tuesday, Feb. 11. Electrical service for almost 70% of the county was interrupted. In Glascock County, some customers were without power for up to a week.

The weight of the ice brought down trees, limbs and other vegetative debris that blocked roads and rights of way creating hazardous conditions. The timber industry was severely affected by the storm. Glascock was one of the nine counties hit by the storm and had moderate to severe timber damage according to the GFC. The GFC examined the levels of damage within two types of pine that were most frequently damaged: the young pine stands, and pine stands on which a first thinning had recently occurred. The moderate to severe damage has branches and limbs broken from the trees with damage to the overall stand, having more than 25% of branches damaged.

Although winter storms are infrequent in the south, they have the potential to cause excessive damage to a community and disrupt the lives of residents. Based on the hazard frequency table located in Appendix D there is a 40% chance of an annual winter storm event for the entire county.

C. Assets Exposed to Hazard and Estimate of Potential Losses: In evaluating assets that may potentially be impacted by the effects of winter storms, the committee determined that all critical facilities, as well as all public, private, and commercial property, are susceptible. The table below shows assets by jurisdiction that could be at potential risk of damage from a winter storm event.

Jurisdiction	Number of Structure/Properties	Value $	Population
Glascock County (Unincorporated)	6,981	$235,866,135	1,963
Edge Hill	107	$1,221,959	22
Gibson	1,210	$28,273,156	869
Mitchell	543	$10,737,327	142
TOTAL FOR COUNTY	**8,841**	**$276,098,673**	**2,996**

Source: Glascock County Tax Assessor

The GMIS does not provide a report for winter storm damage but there is slightly more than $276 million worth of assets with potential loss to winter storm hazards countywide. The table below shows the number of critical facilities by jurisdiction, hazard score, replacement value, content value, and occupancy (*See Appendix A, Section VI for Historical Event Tables, Winter Storm Maps and Appendix D for Hazard Frequency Tables and Worksheet 3A).*

D. Land Use & Development Trends: Glascock County currently has no land use or development trends related to winter storms. Projected changes in land use based on the joint comprehensive plan has minimal or no change to land use within the incorporated jurisdictions. The greatest change in land use and future development has a decrease in forestland that will be converted to residential. Since it is impossible to determine where future residents will move in the unincorporated areas of the county, vulnerability in terms of future buildings, infrastructure and critical facilities is snot known at this time. It can be surmised that this will bring an increase in population and homes. Current and future land use tables and projections can be found in Appendix B.

E. Multi-Jurisdictional Concerns: Glascock County currently has no land use or development trends related to winter storms. Since winter storms can negatively impact the entire county, all mitigation efforts should include Edge Hill, Gibson, and Mitchell.

Another major issue is countywide communications capabilities. During a natural hazard, it is imperative that all emergency personal can communicate with each other throughout the entire planning area. The county and its jurisdictions have numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The county and its emergency personnel depend on the private sector for towers to use for signals. If these towers are removed, the county will be without any adequate means to bounce signals. The County, Edge Hill, Gibson, and Mitchell are aware of the need to develop communication capabilities that will serve the entire county.

F. Hazard Summary: Since the previous plan there has been limited new development and no increase in population that would affect the overall vulnerability of the community to this hazard. This has been no new adoption of development or building regulations to increase or decrease the overall vulnerability to winter storm events.

There have been 12 winter storm events recorded in the county over the last 71 years with $100- thousand in property and crop damage. There is a 40% chance of an annual winter storm event. Winter storms can be more accurately predicted than most other natural hazards, making it possible to give advance warning to communities. The National Weather Service issues winter storm warnings and advisories as these storms make their way south. Given the infrequency of these types of storms, southern communities are still not properly equipped to sustain the damage and destruction caused by severe winter storms. To summarize, there are approximately 8,841 structures/properties in the county totaling slightly more than $276 million with a population of 2,996. The committee recognized the dangers posed by winter storms and identified specific mitigation actions in Chapter III, Section V.

CHAPTER III. MITIGATION STRATEGIES

Table 3.1 provides a brief description of each section in this chapter and a summary of the changes to the 2013 update plan.

Chapter III. Section	Updates to Section
I. Flooding	Completed action steps were removed. Action Steps that apply to all jurisdictions were combined. New goals were added where necessary along with any existing or new multijurisdictional concerns.
II. Drought	Completed action steps were removed. Action Steps that apply to all jurisdictions were combined. New goals were added where necessary along with any existing or new multijurisdictional concerns.
III. Wildfire	Completed action steps were removed. Action Steps that apply to all jurisdictions were combined. New goals were added where necessary along with any existing or new multijurisdictional concerns
IV. Tornadoes	Completed action steps were removed. Action Steps that apply to all jurisdictions were combined. New goals were added where necessary along with any existing or new multijurisdictional concerns. Removed from Severe Weather Section.
V. Tropical Storms	Completed action steps were removed. Action Steps that apply to all jurisdictions were combined. New goals were added where necessary along with any existing or new multijurisdictional concerns. Removed from Severe Weather Section.
VI. Severe Weather	Completed action steps were removed. Action Steps that apply to all jurisdictions were combined. New goals were added where necessary along with any existing or new multijurisdictional concerns. Added Lightning and Hail Events
VII. Winter Weather	Completed action steps were removed. Action Steps that apply to all jurisdictions were combined. New goals were added where necessary along with any existing or new multijurisdictional concerns.

SECTION I. INTRODUCTION TO MITIGATION STRATEGY

This chapter addresses the mitigation strategy requirements of 44 CFR Section 201.6 (c)(3): "A mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools. This section shall include:

i) A description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

ii) A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure. All plans approved by FEMA after October 1, 2008, must also address the jurisdiction's participation in the NFIP, and continued compliance with NFIP requirements, as appropriate.

iii) An action plan describing how the actions identified in paragraph (c)(3)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

iv) For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan."

A. Priority Changes from Previously Approved Plan

There have been no significant priority changes from the previous plan. The goal of Glascock County, Edge Hill, Gibson, and Mitchell, is to protect the safety, health and well-being of all county citizens, and to protect public and private property and to lessen the overall effects of a hazard event.

There has been limited new development since the previous plan and no increase in population that would affect the overall vulnerability of the community from identified hazards. This has been no new adoption of development or building regulations to increase or decrease the overall vulnerability to hazard events.

B. Capability Assessment

Glascock County, Edge Hill, Gibson, and Mitchell identified current capabilities for implementing hazard mitigation activities. The capability assessment identifies administrative, technical, legal, and fiscal capabilities. This includes a summary of departments and their responsibilities associated with hazard mitigation as well as codes, ordinances, and plans already in place that contain mitigation activities or programmatic structure. The second part of the assessment examined the fiscal capabilities applicable to providing financial resources to implement identified mitigation action items. Glascock County has an annual budget of around $2 million, Edge Hill's 2016 budget is 66,000, Gibson's is 1.1 million and Mitchell's 2016 budget is $246,564. It should be noted that mitigation action steps with high dollar amounts couldn't be completed without grant funds and careful budget planning by all jurisdictions.

While not all technical and administrative skills are found in-house, all jurisdictions have access to multiple staff through the RC and can contract out with private firms or any professional services needed. The three tables below identify administrative, technical, legal and fiscal capabilities of each jurisdiction.

Table 3. 2 Legal and Regulatory Capability (Y/N)

Regulatory Tools (ordinances, codes, plans)	Glascock County	Edge Hill	Gibson	Mitchell	Does State Prohibit
Building codes	N	N	Y	N	N
Zoning ordinance	Y	N	Y	N	N
Subdivision ordinance or regulations	N	N	N	N	N

Regulatory Tools (ordinances, codes, plans)	Glascock County	Edge Hill	Gibson	Mitchell	Does State Prohibit
Special purpose ordinances (floodplain management, storm water management, soil erosion)	N	N	Y	N	N
Growth management ordinances (also called "smart growth" or anti- sprawl programs)	N	N	N	N	N
Site plan review requirements	N	N	N	N	N
General or comprehensive plan	Y	Y	Y	Y	N
A capital improvements plan	N	N	N	N	N
An economic development plan	Y	N	N	N	N
An emergency response plan	Y	Y	Y	Y	N
A post-disaster recovery plan	N	N	N	N	N
A post-disaster recovery ordinance	N	N	N	N	N
Real estate disclosure requirements	N	N	N	N	N

Table 3. 3 Fiscal Capability

Financial Resources	Glascock County	Edge Hill	Gibson	Mitchell	Accessible or Eligible to Use (Yes/No)
Community Development Block Grants (CDBG)	Y	Y	Y	Y	Y
Capital improvements project funding	Y	Y	Y	Y	Y
Authority to levy taxes for specific purposes	Y	Y	Y	Y	Y – Vote required
Fees for water, sewer, gas, or electric service	Y	Y	Y	Y	Y
Impact fees for homebuyers or developers for new developments/homes	N	N	N	N	N
Incur debt through general obligation bonds	Y	Y	Y	Y	Y
Incur debt through special tax and revenue bonds	Y	Y	Y	Y	Y – Vote required
Withhold spending in hazard-prone areas	N	N	N	N	N
Other Grants	Y	Y	Y	Y	N

Table 3.4 Administrative and Technical Capacity

Staff/Personnel Resources	Glascock County	Edge Hill	Gibson	Mitchell	Dept./Agency and Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	N	Y	N	Public Works CSRA RC/Contract as Needed
Engineer(s) or professional(s) trained in construction practices	Y	Y	Y	Y	CSRA RC/Contract as Needed

Staff/Personnel Resources	Glascock County	Edge Hill	Gibson	Mitchell	Dept./Agency and Position
related to buildings and/or infrastructure					
Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Y	Y	Y	Y	Public Works/CSRA RC Staff
Floodplain manager	N	N	N	N	
Surveyors	N	N	N	N	Contracted as needed
Staff with education or expertise to assess the community's vulnerability to hazards	Y	Y	Y	Y	Public Safety/EMA
Personnel skilled in GIS and/or HAZUS	Y	Y	Y	Y	CSRA RC
Emergency manager	Y	Y	Y	Y	EMA
Grant writers	Y	Y	Y	Y	CSRA RC

C. Community Mitigation Goals

Collectively, the jurisdictions reviewed the hazard profiles, and the loss estimates in Section II and used it as a basis for developing mitigation goals, objectives and action steps. Mitigation goals are preventive measures to lessen the effect of and losses due to hazard events and are typically long-range visions adapted toward jurisdictional policy. Mitigation objectives are strategies to attain identified goals. Goals and objectives are formulated by reviewing hazard historical data, existing local plans, policy documents, regulations, and public input. Each jurisdiction developed objectives and actions unique to specific vulnerabilities or concerns within its boundaries.

Mitigation actions were developed as the means to carrying out the objectives and attain goals. All action steps are compatible with the plans, policies, and regulations of each jurisdiction. The jurisdictions must also have the legal, administrative, fiscal, and technical capacities to perform each action.

The capabilities assessment above aided in forming realistic mitigation actions. This capabilities assessment can then incorporate results of the STAPLEE worksheet to identified obstacles that may hinder the completion actions. Each jurisdiction identified and prioritized actions steps along with an implementation schedule, funding source, and coordinating individual or agency.

Based on the capabilities assessment, the STAPLEE and six categories listed above the county and all jurisdictions identified the following goals:

- Goal 1: Protect the safety, health and well-being of all county citizens;
- Goal 2: Protect public infrastructure and private property;
- Goal 3: Educate the community about natural hazards;
- Goal 4: Manage development to minimize loss;

- Goal 5: Natural Resources Protection; and
- Goal 6: Structural modifications to reduce the impacts of hazard events.

D. Identification & Analysis of Range of Mitigation Actions

The framework used to guide jurisdictions in identifying mitigation measures was developed by FEMA and is captured by the following six categories:

- **Prevention**: Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities that reduce hazard losses. Examples include building and construction code revisions, zoning regulation changes, and computer hazard modeling.
- **Property Protection**: Actions that involve the medications of existing buildings or structures to protect them from a hazard, or removal from the hazard area. Examples include roadway elevations, improving wind and impact resistance, and flood proofing.
- **Public Education and Awareness**: Action to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them. Examples include programs that target repetitive loss properties and vulnerable populations.
- **Natural Resources Protection**: Actions that, in addition to minimizing hazard losses also preserve or restore the function of natural systems. Examples include projects to create open space, green space, and stream restoration.
- **Structural Projects**: Actions that involve the construction of structures to reduce the impact of a hazard. Examples include projects that control floodwater, reconstruction of dams, and construction of regional retention areas.
- **Emergency Services**: Actions that protect people and property during and immediately after a disaster event or hazard event. Examples include enhancements that provide advanced warning and redundant communications.

i. Structural and Non-Structural

Mitigation relates to concrete actions that are put into practice to reduce the risk of destruction and casualties. Mitigation is generally split into two main types of activities: Structural mitigation refers to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural mitigation refers to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk with related impacts. Structural and non-structural actions are identified in Table 3.7.

ii. Existing Polices, Regulations, Ordinances, and Land Use

Gibson has adopted the following Mandatory codes:

- Georgia State Minimum Standard Building Code (International Building Code with Georgia State Amendments).

- Georgia State Minimum Standard One- and Two-Family Dwelling Code (International Residential Code for One- and Two-Family Dwellings with Georgia State Amendments).
- Georgia State Minimum Standard Fire Code (International Fire Code with Georgia State Amendments).
- Georgia State Minimum Standard Plumbing Code (International Plumbing Code with Georgia State Amendments).
- Georgia State Minimum Standard Mechanical Code (International Mechanical Code with Georgia State Amendments).
- Georgia State Minimum Standard Gas Code (International Fuel Gas Code with Georgia State Amendments).
- Georgia State Minimum Standard Electrical Code (National Electrical Code with Georgia State Amendments).
- Georgia State Minimum Standard Energy Code (International Energy Conservation Code with Georgia State Supplements and Amendments).
- Life Safety Code (NFPA 101).

They have also adopted the Permissive codes:

- International Property Maintenance Code.
- International Existing Building Code.

Other types of ordinances that have been adopted are:
The *Glascock County Joint Comprehensive Plan 2015-2035* was adopted by resolution by the Glascock County Board of Commissioners, Edge Hill, Gibson, and Mitchell The planning process examines the current and future trends and assess the strengths and opportunities available to achieve their community vision. This document drives the decision-making process for the County, Edge Hill, Gibson, and Mitchell. The Comprehensive Plan also examines existing land use and projects future land use. Existing and Future Land Use Maps can be found in Appendix B.

iii. Community Values, Historic & Special Considerations

Historical-Cultural: Glascock County has one site listed on the National Register of Historic Places.

Glascock County Courthouse is on Main Street in Gibson, Georgia, the county seat of Glascock County. The first county courthouse was built in 1858 with a donation from William Gibson, namesake of the county. It was removed for use as a residence when the currently used courthouse was built in 1919. The courthouse was designed by J.W. McMillian & Son.

Recreation: The Glascock County Recreation Department offers recreation programs that allow the residents an opportunity to pursue a healthy lifestyle. Programs change of a quarterly basis for everyone's enjoyment. Programs include youth baseball, softball, soccer, and contact football. An adult softball league is also offered.

iv. **Prioritization of Actions:** Those mitigation actions given high priority are in two groups: life safety-related actions that can be accomplished relatively quickly and changes to protect critical facilities on which other emergency management systems are dependent, for example communications focal points. Those actions likely to require extended time-frames to accomplish received medium priority status.

The committee consultant used the STAPLEE worksheet (Social, Technical, Administrative, Political, Legal, Economic, Environmental) to select and prioritize the most appropriate mitigation alternatives and is in Appendix D. This methodology requires that seven categories outlined in the STAPLEE be considered when reviewing potential actions. This process helped ensure that the most equitable and feasible actions would be undertaken based on each jurisdiction's capabilities. Table 3.6 provides information regarding the review and selection criteria for alternatives.

Table 3.6

STAPLEE REVIEW AND SELECTION CRITERIA FOR ALTERNATIVES
• Is the proposed action acceptable by the community?
• Is the action compatible with current and future community values?
• Are equity concerns involved that would result in unjust treatment of any segment of the population?
• Will the proposed action cause social disruption?
TECHNICAL
• Will the proposed action achieve the stated objective and further mitigation goals?
• Will the proposed action create more problems than it solves?
• Does the proposed action resolve the problem completely or partially?
• Is it the most useful action in light of other community values?
ADMINISTRATIVE
• Does the community have the capability to implement proposed action?
• Is there someone to lead or coordinate the proposed action?
• Is there sufficient funding, staff and technical support to implement the proposed action step?
• Are there ongoing administrative needs that are required?
POLITICAL
• Is the proposed action politically acceptable?
• Have political leaders participated in the planning process?
• Who are the stakeholders for this proposed action?
• Have all stakeholders been afforded an opportunity to participate in the planning process?
• Is there public support to implement and maintain the action?
LEGAL
• Does the community have the authority to implement the proposed action?

- Is there a clear legal basis for the proposed action?
- Are there legal side effects? (i.e. could the action be construed as a taking)
- Is the proposed action allowed in the general plan?
- Will the community be liable for action or lack thereof?
- Will the proposed action be challenged?

ECONOMIC

- What is the cost-benefit of the proposed action (do the benefits exceed the cost)?
- Have initial, maintenance and administrative costs been considered?
- Has funding been secured for the proposed action? If not have funding sources been identified?
- Will the proposed action affect the fiscal capabilities and/ or budget of the jurisdiction?
- Will the proposed action place a tax burden on the community?
- Does the proposed action contribute to other community goals? (capital improvements, economic development)

ENVIRONMENTAL

- Will the proposed action have a positive or negative effect on the environment?
- Does the proposed action require environmental regulatory approvals?
- Does the proposed action meet local and state regulations?
- Does the proposed action impact a threatened or endangered species?

E. Introduction to Action Plan

The next two sections of Chapter III., Section II. Natural Hazards and Section III. Mitigation Actions comprise the strategies Glascock County together with Edge Hill, Gibson, and Mitchell have identified to reduce the effects of natural hazards. Mitigation actions given high priority are in two groups: (1) life safety-related actions that can be accomplished relatively quickly and (2) changes to protect critical facilities on which other emergency management systems are dependent, for example communications focal points. Those actions likely to require extended periods to accomplish received medium priority status.

SECTION II. NATURAL HAZARDS

A. Flooding Action Plan

The committee determined that due to the presence of flood plains in the county efforts to reduce the level of exposure to flooding should be considered. In previous flooding instances, damage has been sustained primarily to roads, bridges, and natural resources. Specific mitigation measures identified by the committee are designed to lessen the effects of such damage to new and existing structures in the future.

Objective A1. Improve the effectiveness of existing flood insurance programs.
Objective A2. Evaluate and improve the present drainage infrastructure.
Objective A3. Warn citizens when the potential for flooding exists.
Objective A4. Lessen the impact to existing buildings, critical facilities, and infrastructure due to flooding.
Objective A5. Limit future development in flood prone areas.
Objective A6. Reduce the threat of water contamination caused by flooding.

B. Drought Action Plan

As indicated in Chapter II, Section II, drought conditions can cause costly damage to crops. However, from a danger or hazard perspective, the greatest threat posed by drought conditions is from potential wildfires. As 96 percent of the county is made up of forest and woodlands, the possibility for wildfires is distinct and poses a significant threat. In general, wildfires are the result of dry conditions combined with lightning or carelessness. The committee determined that mitigation goals were necessary to prevent crop damage, as well as damage to new and existing structures.

Objective B1. Ensure that there is an adequate water supply during periods of drought.
Objective B2. Educate citizens on water conservation issues.

C. Wildfire Action Plan

As indicated in Chapter II, Section III, wildfires have the potential to cause costly damage in Glascock County. From a danger or hazard perspective, the greatest threat posed by wildfire is the damage to forest, woodlands and agriculture property. The possibility for wildfires is distinct and poses a significant threat to the county. Forest fires are generally the result of dry conditions combined with lightning or carelessness. The committee determined that mitigation goals were necessary to prevent damage to undeveloped areas of the county as well as damage to new and existing structures caused by wildfires.

Objective C1. Ensure that adequate fire protection is available.
Objective C2. Reduce threat of wildfire occurrence.
Objective C3. Increase public awareness of wildfire dangers.

D. Tornadoes

As with many Georgia communities, if a tornado or tropical storm were to strike Glascock County, significant damage to both property and agricultural crops could result. In addition, the potential for injuries and loss of life is substantial due to the unpredictability and violent nature of these storms. The committee recognizes the important role planning plays in the mitigation process. There is great benefit in identifying appropriate steps that can be taken to help minimize losses to new and existing structures in Glascock County because of a severe weather event. As indicated in Chapter II, Section IV, of all the natural hazards profiled in this plan, tornados have the potential to inflict the greatest amount of damage while thunderstorm winds are the most frequently occurring natural hazard in the county and have the greatest chance of affecting the county each year. The committee has identified several courses of action that both local officials and citizens can use in their mitigation efforts against the effects of tornados, tropical storms, thunderstorm winds, lightning and hail to both new and existing structures.

Objective D1. Minimize damage to property from severe weather events.
Objective D2. Minimize damage to public buildings and critical facilities to ensure continual operations of vital services.
Objective D3. Protect vulnerable populations from the effects of severe weather events.
Objective D4. Educate the public including citizens and business owners on disaster preparedness and safety.

E. Tropical Storms

Within Glascock County, and the southeast region in general, there is great concern over the threat of winter storms. Although this area does not typically receive the amounts of snow

and ice that other regions do, nor do they experience winter storms as frequently as other regions, Glascock County and other southeastern communities must be prepared for the damage caused by winter storms. The fact that winter storms hit Glascock County infrequently results in other problems, such as lack of equipment and supplies to combat treacherous winter storm conditions. In Glascock County, the formation of ice on roads and bridges, tree limbs, and power lines is the cause of most damage. In Chapter II, Section VII additional winter storm hazards are addressed, as well as information related to potential losses for the county. The committee has determined that several steps could be undertaken to minimize the effects of winter storms to protect the health and safety of citizens, as well as damage to new and existing structures.

Objective E1. Educate the public on preparedness and safety issues for winter storm events.

Objective E2. Prevent property damage because of a winter storm event.

Objective E3. Minimize power outages during winter storms.

F. Severe Weather (Severe Thunderstorm Wind, Hail, Lightning)

As with many Georgia communities, if a severe weather events were to strike Glascock County, significant damage to both property and agricultural crops could result. In addition, the potential for injuries and loss of life exists due to the violent nature of these storms. The committee recognizes the important role advance planning plays in the mitigation process. There is great benefit in identifying appropriate steps that can be taken to help minimize losses to new and existing structures in Glascock County because of a severe weather wind event. As indicated in Chapter II, Section VI, of all of the natural hazards profiled in this plan, severe weather events are the most frequently occurring natural hazard in the county and have the greatest chance of affecting the county each year. The committee has identified several courses of action that both local officials and citizens can use in their mitigation efforts against the effects of severe thunderstorm winds.

Objective F1. Minimize damage to property from severe weather events.

Objective F2. Minimize damage to public buildings and critical facilities to ensure continual operations of vital services.

Objective F3. Protect vulnerable populations from the effects of severe weather events.

Objective F4. Educate the public including citizens and business owners on disaster preparedness and safety

G. Winter Storms Action Plan

Within Glascock County, and the southeast region in general, there is great concern over the threat of winter storms. Although this area does not typically receive the amounts of snow and ice that other regions do, nor do they experience winter storms as frequently as other regions, Glascock County and other southeastern communities must be prepared for the damage caused by winter storms. The fact that winter storms hit Glascock County infrequently results in other problems, such as lack of equipment and supplies to combat treacherous winter storm conditions. In Glascock County, the formation of ice on roads and bridges, tree limbs, and power lines is the cause of most damage. In Chapter II, Section V additional winter storm hazards are addressed, as well as information related to potential losses for the county. The committee has determined that several steps could be undertaken

to minimize the effects of winter storms to protect the health and safety of citizens, as well as damage to new and existing structures.

Objective G1. Minimize damage to property from severe weather events.
Objective G2. Minimize damage to public buildings and critical facilities to ensure continual operations of vital services.
Objective G3. Protect vulnerable populations from the effects of severe weather events.
Objective G4. Educate the public including citizens and business owners on disaster preparedness and safety.

H. All Hazards Action Plan

The purpose of this section is to allow the committee to recommend mitigation measures within this plan that transcend individual hazards. Certain common mitigation measures are needed regardless of the specific hazard event. Rather than list these multiple times within each different hazard category, the committee decided to list these "all-hazards" mitigation measures within a separate section of the plan. The goal with these mitigation measures is again to minimize the loss of life and property, and to prevent disruption of services to the public to the greatest extent possible.

Objective-H1. Ensure communication capabilities exist between all Emergency Service Personnel and Agencies.
Objective-H2. Ensure the ability to travel for county residents, organizations, and providers of essential services such as Law Enforcement Personnel, hospitals and utilities after a hazard event.
Objective-H3. Protect critical facilities from the effects due to power outages because of a hazard event to ensure a continuation of all vital services.
Objective-H4. Provide adequate notification to citizens of Glascock County pertaining to hazard event.
Objective-H5. Guarantee all evacuation plans are up to date and adequate to meet the needs of the citizens of Glascock County.
Objective-H6. Guarantee that all Emergency Response Plans are up to date and adequate to meet the needs of citizens of Glascock County.
Objective-H7. Ensure all emergency shelters are ready to meet the needs of the population of Glascock County, Edgehill, Gibson, and Mitchell
Objective-H8. Provide the citizens of Glascock County educational information on Emergency Preparedness.
Objective-H9. Provide the citizens of Glascock County with accurate and timely information pertaining to Emergency Preparedness.
Objective-H10. Collect accurate and complete data pertaining to hazard events within Glascock County, Edgehill, Gibson, and Mitchell.

SECTION III. MITIGATION ACTIONS

Table 3.7

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
1.	Adopt Floodplain Ordinances and Participate in the NFIP	Glascock / Edge Hill/ /Mitchell	BOC/City Councils	Flood	A1, A2	1, 2, 4, 5	Non-Structural	Staff Time	General Funds	3 years	Ongoing	Low
2.	Continue to assess storm water runoff.	Glascock / Edge Hill/Gibson/ Mitchell	Public Works	Flood	A5, B2	2, 6	Non-Structural	Staff time	General Funds	1 year and Continual	Ongoing	High
3.	Construct as needed, more storm water retention facilities, storm drain improvements and channel improvements to protect existing and new developments.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Council/ Public Works	Flood/ Drought	A3,	2, 6	Structural	$1,000,000	General Funds	2 years and Continual	Ongoing As projects are identified and when funding is available	High
4.	Clear run-off and water retention ditches.	Glascock / Edge Hill/Gibson/ Mitchell	Public Works/Road Dept.	Flood	A5	2, 1	Structural	Staff Time	General Fund,	1 year and Continual	Ongoing	High
5.	Seek funding for communication towers and voice repeater systems.	Glascock / Edge Hill/Gibson/ Mitchell	EMA/Police/ Sheriff	All hazards	F1, F9	1	Structural	$750,000	General Fund, FEMA, CJCC, JAG, USDA, DOJ	2 years and Continual	Ongoing As funding becomes available	High
6.	Promote the preservation of areas in and around watercourses.	Glascock	BOC/	Flood	A6	1, 2, 4, 5	Non-Structural	Staff time	CDBG, USDA, EPA, DNR	Continual	Ongoing	Medium
7.	Evaluate existing water system upgrade as needed	Glascock / Edge Hill/Gibson/ Mitchell	Public Works	Flood/ Drought/ Wildfire	A7, B1	1, 2, 6	Structural	$500,000	General Fund, CDBG, USDA, EPA, DNR	1 year and Continual	Ongoing As projects are identifie	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
											d and when funding is available	
8.	Investigate methods to reduce non-point source pollution.	Glascock / Gibson	BOC/City Council	Flood	A1	1, 2, 5	Non-Structural	Staff Time	USDA, EPA, DNR	2 years Continual	Ongoing	Low
9.	Promote increased surface water usage for irrigation.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ Public Works	Drought	B1, B2	1, 3	Non-Structural	Staff Time	General Funds	1year and Continual	Ongoing	High
10.	Promote usage of surface artesian flow for irrigation.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ Public Works	Drought	B1, B2	1, 3	Non-Structural	Staff Time	General Funds	1year and Continual	Ongoing	High
11.	Enact a program to educate the residents about water conservation issues	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ Water Dept.	Drought	B1, B2	1, 3	Non-Structural	$2,000.00	USDA, EPA, DNR, General Funds	1year and Continual	Ongoing	High
12.	Increase public awareness of watering restrictions and bans.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ Water Dept.	Drought	B1, B2	1, 3	Non-Structural	Staff Time	General Funds	1year and Continual	Ongoing	High
13.	Develop a public awareness campaign to promote water-saving campaigns (i.e. low-flow water saving devices)	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ Public Works	Drought	B1, B2	1, 3	Non-Structural	Staff Time	General Funds	1year and Continual	Ongoing	High
14.	Continue training of all firefighters to include wildland fire training.	Glascock /Edge Hill/Gibson/ Mitchell	EMA/Fire Depts.	Wildfire	C1	1, 2	Non-Structural	$75,000	General Funds, FEMA	1year and Continual	Ongoing	High
15.	Seek funding for more paid firefighters	Glascock/ Gibson/ EMA	EMA/Fire Depts.	Wildfire	C1	1, 2	Non-Structural	$200,000	General Funds, FEMA	1year and Continual	Ongoing As funding becomes available	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
16.	Seek funding for needed firefighting equipment	Glascock / Edge Hill/Gibson/ Mitchell	EMA/Fire Depts.	Wildfire	C1	1, 2	Non-Structural	$250,000	General Funds, FEMA	1 year and Continual	Ongoing As funding becomes available	High
17.	Inventory and replace or install more fire hydrants as needed.	Glascock / Edge Hill/Gibson/ Mitchell	Public Works/ Fire Depts.	Wildfire	C1	1, 2	Structural	$50,000	General Funds, FEMA	1year and Continual	Ongoing As funding becomes available	High
18.	Seek funding fire engines, burhs trucks, equipment trucks and tankers for local fire departments.	Glascock / Edge Hill/Gibson/ Mitchell EMA/	EMA/Fire Depts.	Wildfire	C1	1, 2	Non-Structural	$500,000	General Funds, FEMA	1year and Continual	Ongoing As funding becomes available	High
19.	Enforce defensible space (30-ft minimum setbacks) between buildings and flammable brush and forestland where possible.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/	Wildfire	C2, C3	1, 2, 3	Structural	Staff Time	General Funds, FEMA	1 year and Continual	Ongoing	Medium
20.	Continue following GFC service of construction and maintenance of firebreaks around forests and structures, along abandoned roadbeds.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ Planning and Zoning	Wildfire	C2, C3	1, 2, 3	Non-Structural	Staff Time	General Fund	1 year and Continual	Ongoing	High
21.	Strictly follow GFC's guidelines for control burns and permits.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ GFC	Wildfire	C2, C3	1, 2, 3	Non-Structural	Staff Time	General Funds,	1 year and Continual	Ongoing	High
22.	Investigate the feasibility of Implementing the Firewise Community Initiative where appropriate	Glascock /Edge Hill/Gibson/ Mitchell	BOC/City Councils/	Wildfire	C2, C3	1, 2, 3	Non-Structural	$25,000	General Funds, GFC	3 years	Ongoing	Medium

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
23.	Improve public awareness of wildfire techniques and awareness of wildfire dangers.	Glascock / Edge Hill/Gibson/ Mitchell	EMA/ Fire Depts.	Wildfire	C2, C3	1, 2, 3	Non-Structural	$25,000	General Funds	2 years and Continual	Ongoing	High
24.	Equip all county and city recreation parks with adequate early severe weather warning and lightning detection devices.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/City Councils/ Recreation Dept.	Severe Weather	F1, F2. F3	1, 2, 6	Structural	$10,000	General Funds, FEMA	2 years	Ongoing As funding becomes available	High
25.	Inspects public buildings and critical facilities and retrofit to reinforce windows, doors, and roofs as needed	Glascock / Edge Hill/Gibson/ Mitchell	EMA/ Gibson Building Inspector	Severe Weather, Winter Storms	F1, F2, F3, G1, G2	1, 2, 6	Structural	$150,000	General Funds, FEMA	3 years/ Continual	Ongoing No building has been identified to retrofit	Medium
26.	Enforce building codes for all new buildings and critical facilities.	Gibson	Gibson Code Enforcement and Building Inspection	Flood, Severe Weather, Winter Storm	A5, A6, F1, F2, G1, G2	1, 2, 6	Structural/Non-Structural	Staff Time	General Funds, FEMA	1 year and Continual	Ongoing	High
27.	Install lightning rods in high value critical facilities.	Glascock / Edge Hill/Gibson/ Mitchell	EMA/ Gibson Code Enforcement /Public Works	Severe Weather, Lightning	F1, F2. F3	1, 2, 6	Structural	$100,000	General Funds, FEMA	2 years	Ongoing As funding becomes available	High
28.	Install surge protectors on critical facilities' electronic equipment in essential county and city facilities.	Glascock / Edge Hill/Gibson/ Mitchell	EMA/ Public Works	Severe Weather, Lightning, Winter Storm	F2, G1	1, 2, 6	Structural	$10,000	General Funds	1 year and continual	Ongoing As funding becomes available	High
29.	Review current Emergency Response Plan and update when needed.	Glascock County EMA	EMA	All hazards	H6, H8	1, 2, 3	Non-Structural	Staff Time	General Funds	2 years and continual	Ongoing As funding becomes available	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
30.	Review current evacuation plans paying particular attention to vulnerable populations and update as needed.	Glascock County EMA	EMA/BOE	Flood, Wildfire, Severe Weather, Winter Storm	F5, F8	1, 2, 3	Non-Structural	Staff Time	General Funds	2 years and continual	Ongoing	High
31.	Provide boat owners with safety tie down procedures with boat registration.	Glascock / Edge Hill/Gibson/ Mitchell	EMA/ Recreation Dept.	Severe Weather, Winter Storm	E1, F1	1, 2, 3	Non-Structural	$2,500	General Funds	1 year and continual	Ongoing	High
32.	Develop a public awareness program about the installation of lightning grounding systems on critical infrastructure, residential and business properties.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ EMA	Severe Weather, Lightning	F4	1, 2, 3	Non-Structural	Staff Time	General Funds	2 years and continual	Ongoing	High
33.	Inventory all critical facilities and assess generator needs. Install generators where needed.	Glascock / Edge Hill/Gibson/ Mitchell	EMA	All hazards	H3	1, 2, 3, 6	Structural/Non-Structural	$150,000	General Funds, FEMA	1 year and continual	Ongoing	High
34.	Seek funding to ensure all current and future emergency shelters have back-up generators.	Glascock / Edge Hill/Gibson/ Mitchell	EMA	All hazards	H7	1, 2, 3, 6	Structural/Non-Structural	$100,000	General Funds, FEMA	3 years	Ongoing As funding becomes available	High
35.	Educate the public on shelter locations and evacuation routes	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ EMA/BOE	Flood, Wildfire, Severe Weather, Winter Storm	H8, H9	3	Non-Structural	Staff Time	General Funds	1 year and continual	Ongoing	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
36.	Develop public education and awareness programs regarding severe weather events to include home safety measures, purchase of weather radio and personal safety measures before, during and after an event.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ EMA	Flood, Wildfire, Severe Weather, Winter Storm	H8, H9	3	Non-Structural	$10,000	General Funds, FEMA	2year and continual	Ongoing Stalled due to lack of staff and funds	High
37.	Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ EMA	Winter Storm	C1	3	Non-Structural	$25,000	General Funds	2 year and continual	Ongoing Stalled due to lack of staff and funds	High
38.	Review current codes to comply with and enforce the State building code with criteria for design snow load for buildings and structures.	Glascock /Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ Planning and Zoning	Winter Storm	C2	1, 2, 3,	Non-Structural	Staff Time	General Funds	continual	Ongoing	Medium
39.	Create a database to record hazard event information.	Glascock / Edge Hill/Gibson/ Mitchell	EMA	All hazards	H10	1, 2, 3,	Non-Structural	Staff Time	General Funds	2 years	Stalled due to lack of staff	Medium
40.	Inventory existing road equipment and purchase needed equipment to maintain roads before, during and after a hazard event.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ Road Dept.	Flood, Severe Weather, Winter Storm	F2	1, 2	Non-Structural	$150,000	General Funds, FEMA	2 years	Ongoing As funding becomes available	Medium
41.	Develop coordinated management strategies for deicing, snow plowing, and clearing roads of fallen trees and	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ Road Dept./EMA	Flood, Severe Weather, Winter Storm	F2, G2	1, 2	Non-Structural	Staff Time	General Funds	2 years	Ongoing	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
	debris											
42.	Promote the construction of safe rooms in shelter areas and in public buildings.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ EMA	Flood, Wildfire, Severe Weather, Winter Storm	F3	1, 2, 6	Structural	$1,000,000	General Funds, FEMA	4 years	Ongoing As funding becomes available	Medium
43.	Install weather Service Radio Transmitter on existing towers to provide coverage of NWS transmissions	Glascock/ EMA/	EMA/	All Hazards	H4, H8, H9	1, 2	Structural	$150,000	General Funds, FEMA	2 years	Ongoing As funding becomes available	High
44.	Update 911 equipment as needed.	Glascock County	EMA/ Sheriff	All hazards	H1, H3	1, 2, 6	Structural	$150,000	General Funds, FEMA	1 year and Continual	Ongoing As funding becomes available	High
45.	Request that all new education facilities be designed to serve as public shelters for emergency purposes.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/ BOE	All hazards	H7	1, 2, 6	Non-Structural	Staff Time	General Funds	1 year and Continual	Ongoing No new facilities salted for construction at this time	High
46.	Promote and participate in the following American Red Cross Programs • Disaster Resistant Neighborhoods Program • Business and Industry Preparedness Seminar • Community Disaster Education Preparedness presentations	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/	All hazards	H4, H8, H9	1, 2 ,3	Non-Structural	$10,000	General Funds, FEMA	2 years and Continual	Ongoing Stalled due to lack of staff and funds	Medium

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time Frame	Status	Priority
47.	Work with local cable and radio providers to enhance and broadcast public education on Emergency Preparedness.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/	All hazards	H8, H9	1, 2 ,3	Non-Structural	Staff Time	General Funds	1 year and Continual	Ongoing	High
48.	Implement GIS technology on fire and emergency management vehicles so data can be readily available in the field so more accurate, timely assessments for future mitigation planning activities.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/	Flood, Wildfire, Severe Weather, Winter Storm	H9, H10	1, 2, 6	Non-Structural	$50,000	General Funds, FEMA	1 year and Continual	Ongoing	High
49.	Pave Roads in county that are unpassable due to flooding	Glascock County	BOC/ Road Dept.	Flood, Severe Weather,	A1, A2	1, 2, 4, 5	Structural	$1,500,000	General Funds T-SPLOST FEMA, DOT	2 years	New	Medium
50.	Provide NOAA weather radios to elderly and handicap populations (moved to all hazards).	Glascock / Edge Hill/Gibson/ Mitchell	EMA	Flood, Wildfire, Severe Weather, Winter Storm	F3, H4, H8, H9	1, 2,3	Non-Structural	$50,000	General Funds, FEMA	2 years	Stalled due to funding	Medium
51.	Review existing comprehensive, development and land use plans to address flood prone areas.	Glascock / Edge Hill/Gibson/ Mitchell	BOC/ City Councils/	Flood	A1, A2	1, 2, 4, 5	Non-Structural	Staff Time	General Funds	3 years And ongoing	Ongoing Will review at next comp plan update.	Medium

A. New Buildings and Infrastructure: All objectives and action steps are applicable to new buildings and infrastructure.

B. Existing Buildings and Infrastructure: All objectives and action steps are applicable to existing buildings and infrastructure except adopt building codes. Enforcing building codes on existing buildings is not always feasible. Buildings maybe retrofitted but cannot always be brought up to stricter regulations.

C. Special Multi-Jurisdictional Strategy and Considerations: During a natural hazard, it is imperative that all emergency personal can communicate with each other throughout the entire planning area. The County has numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The County and its emergency personnel are dependent on the private sector for towers to use for signals. If these towers are ever removed, the County will be without any adequate means to transmit signals.

Another concern is the lack of available data for the county and individual jurisdictions on hazard events. A database needs to be created and maintained that provides information on flooding events that occur. This database should include information such as location (road names, neighborhoods, GPS coordinates, etc.), damages reported, power outages, road closures, county and city personal that are dispatched to the area, etc.

D. Completed and Deleted Action Steps from Original Plan:

Table 3.8

Action #	Mitigation Action and Description	Hazards	Status	Comments/Accomplishments
1.	Investigate greater participation Level in the CRS	Flood	Deleted	Cost prohibitive for County and Cities.
2.	Add greenspace to known flood prone areas.	Flood	Deleted	N/A

CHAPTER IV. PLAN INTEGRATION AND MAINTENANCE

The table below provides a brief description of each section in this chapter and a summary of the changes that have been made.

Chapter 1 Section	Updates to Section
I. Implementation Action Plan	Revised to follow New GEMA planning template
II. Evaluation, Monitoring, Updating Note whether the original method and schedule worked	Revised to follow New GEMA planning template
III. Plan update and maintenance	Regulated update and maintenance schedule and public involvement

SECTION I. Implementation Action Plan

A. Administrative Actions: Glascock County Emergency Management Agency was responsible for overseeing the original PDM planning process and the plan update. Facilitation of the planning process was conducted by the Central Savannah River Area Regional Commission. The Glascock County Board of Commissioners has authorized the submission of this plan to both GEMA and FEMA for their respective approvals. The Glascock County Board of Commissioners, the Town Council of Edge Hill, the City Council of Gibson, and the Town Council of Mitchell have formally adopted this plan after approval from GEMA and FEMA was obtained.

B. Authority and Responsibility: Upkeep and maintenance of the plan shall be the responsibility of the EMA Director, as determined during the planning process. It shall be the responsibility of the EMA Director to ensure that this plan is utilized as a guide for initiating the identified mitigation measures within the community. The Glascock County Board of Commissioners and the Mayors of all incorporated jurisdictions will be responsible for assigning appropriate staff members to implement the action steps identified in this plan for their jurisdictions. The EMA Director, or his designee, shall be authorized to call the committee to review and update this plan periodically (at least annually) throughout the useful life of the plan, not to exceed five years.

During the plan update process, the EMA Director and committee members shall identify projects that have been successfully undertaken in initiating mitigation measures within the community. These projects shall be noted within the planning document to indicate their completion. Additionally, the committee called together by the EMA Director shall discuss and identify any additional mitigation projects that are necessary in the community.

C. Prioritization: The mitigation goals, objectives and related action items were initially compiled from the input of the committee, as well as from others in the community. The committee prioritized the mitigation actions based on what would be perceived as most beneficial to the community, and the action steps have been listed in this plan as the committee prioritized them. Several criteria were established to assist committee members in the prioritization of these suggested mitigation actions. Criteria included perceived cost

benefit or cost effectiveness, availability of potential funding sources, overall feasibility, measurable milestones, multiple objectives, and both public and political support for the proposed actions.

1. **Methodology for prioritization:** To assist with the prioritization of mitigation actions, the STAPLEE worksheet and criteria recommended by FEMA was used. STAPLEE is a tool used to assess the costs and benefits and overall feasibility of mitigation actions. STAPLEE stands for the following:
    i. **Social:** Will the action be acceptable to the community? Could it have an unfair effect on a particular segment of the population?
    ii. **Technical:** Is the action technically feasible? Are there secondary impacts? Does it offer a long-term solution?
    iii. **Administrative:** Are there adequate staffing, funding and maintenance capabilities to implement the project?
    iv. **Political:** Will there be adequate political and public support for the project?
    v. **Legal:** Does your jurisdiction have the legal authority to implement the action?
    vi. **Economic:** Is the action cost-beneficial? Is there funding available: Will the action contribute to the local economy?
    vii. **Environmental:** Will there be negative environmental consequences from the action? Does it comply with environmental regulations? Is it consistent with community environmental goals?

    The committee was asked to review the STAPLEE score sheet with a list of mitigation actions and assign a High, Medium or Low score to each item to help determine the item's priority. Each action item was discussed and a consensus reached by the group on the importance of each item.

2. **Use of cost benefit refer to Worksheet #4:** Through the STAPLEE prioritization process, several projects emerged as being a greater priority than others. Some of the projects involved expending considerable amounts of funds to initiate the required actions. Other projects allowed the community to pursue completion of the project using potential grant funding. Still others required no significant financial commitment by the community.

    The determination of the cost benefit of a project was based upon the anticipated cost in relation to the perceived benefit of the action taken. A proposed action with a high price tag, but minimal benefit to the community, was considered to have a low-cost benefit. Conversely, if minimal expenditures were required and the entire community would benefit, this received a favorable cost benefit rating. All proposed mitigation actions were evaluated to determine the favorability of the benefit in relation to the cost associated with completing the project. Determining the economic feasibility of mitigating hazards can provide decision makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

3. **Use of other calculations:** Estimation of potential damages and costs in the event of a natural hazard achieves two ends: (1) it enables the identification of critical economic targets for mitigation measures and (2) to enhance the ability to prioritize post-disaster response in aiding the community to recover.

4. **Use of other review structure**: All goals were discussed in detail to determine what was considered a priority for the EMA personnel.

D. Incorporation of Local PDM Plan into other plans/planning measures: The jurisdictions completed and update to their Joint Comprehensive plan and updated their STWP in 2015. The 2013 plan was reviewed to determine if any mitigation activities need to be added. Glascock County, Edge Hill, Gibson and Mitchell work jointly to produce these planning documents.

The STWP will be updated in 2020 and the Joint Comprehensive Plan is due for an update in 2025. The RC facilities the planning process for both documents and updates both plans. Glascock County takes the lead and all jurisdictions must participate to complete the comp plan and STWP. This Plan will be reviewed by Glascock County, Edge Hill, Gibson and Mitchell. The requirements of this Hazard Mitigation Plan will be taken into consideration and will be incorporated into Comprehensive Plans, Five-Year Short-Term Work Program, Local Emergency Operations Plans, and all other such Plans as appropriate. This hazard plan will be reviewed and incorporated into the Joint Comprehensive plan and STWP update as needed. In addition, relevant sections of the 2013 plan were included in the revision of the Glascock Local Emergency Operations Plan. This hazard plan update will also be reviewed by the EMA Director when updating the LEOP in 2018.

SECTION II. EVALUATION, MONITORING AND UPDATING

The original method for evaluation of the plan was unsuccessful. While the plan was discussed at EMA meetings, little attention was given to the monitoring and evaluation of the plan. Changes have been made to ensure a more successful and meaningful use of this plan.

A. Method: The Plan is intended to be a 'living' document that informs stakeholders about hazard mitigation projects and plans undertaken by the county and their jurisdictions. In accordance with the requirements set forth in the Disaster Mitigation Act of 2000, Glascock County is required to review the plan annually and revise the plan every five years. The revision process will be consistent with the FEMA planning requirements as stipulated in the 44 CFR 201.6.

B. Criteria to be used to monitor and evaluate the plan annually or after any natural disaster event.

a. Each hazard will be reviewed. Any new information pertaining to new and/or previous events will be added to the plan.
b. Any new critical facilities will be added to the plan.
c. Critical facilities information will be updated as needed.

d. All mitigation goals, objectives and action steps will be reviewed for relevance and completion status. All mitigation goals, objectives and action steps that have been completed or are no longer relevant will be documented.
e. New mitigation activities will be added if necessary.
f. Public participation will be monitored and documented.

C. Responsibility: At the direction of the EMA Director, the committee shall be reconvened for the revision process that will include a schedule, timeline, and a list of the agencies or organizations participating in the plan revision. Glascock County and all incorporated jurisdictions have designated the following participants of the committee to guide plan maintenance and update activities to ensure that the information in the plan is current. The update committee will also be responsible for disseminating information to stakeholders within their respective jurisdictions.

Jurisdiction	Hazard Mitigation Update Committee	Review
	Point-of-Contact	Schedule
Glascock County	Emergency Management Director	Annually
Edge Hill	Mayor	Annually
Gibson	Mayor	Annually
Mitchell	Mayor	Annually

D. Timeframe: The committee has set the second Wednesday of every June for the annual review of the plan update and within two months after any natural disaster event. A public notice will be submitted to the legal organ of each jurisdiction and the notice will be published at all government and community buildings.

SECTION III. PLAN UPDATE AND MAINTENANCE

A. Public involvement: Glascock County is committed to having active public participation during reviews and updates of the PDM Plan. Future public involvement of the community will be more stringent. The original method of posting notices at the government office and posting twice in the paper was not as successful as anticipated in ensuring community involvement. Two weeks before the annual June review meeting, a notice will be published in the legal organ of Glascock County. Flyers will be placed at all government, and community gathering places to ensure that citizens of the county are made aware of the annual review process. The flyer will also be given to community organizations. The process of providing information to community organizations and gathering places will ensure that the public is aware of the planning process. The new EMA website will also provide ongoing information about the plan and its implementation.

B. Timeframe: At the direction of the EMA Director, the committee will convene to accomplish the revisions the second Wednesday of every June. The EMA Director will ensure the revised plan is presented to the Glascock County Board of Commissioners for formal adoption. In addition, all holders of the County plan will be notified of affected changes. No later than the conclusion of the five-year period following initial approval of the

update plan, the EMA Director shall submit the update PDM Plan to GEMA and FEMA for their review and coordination.

CHAPTER V. Conclusion

SECTION I. Summary

Through the update process of this plan, Glascock County has developed a more thorough hazard history, an inventory of critical facilities, and an updated contact list for emergency contacts at critical facilities. Natural hazards have been identified countywide. Goals, objectives and mitigation actions have been compiled and prioritized that would reduce the risk of lives and property because of the identified hazards. The committee has been able to work together effectively and efficiently to produce this document and establish a greater awareness of our risks and our mitigation strategies.

As a result of the update PDM planning process, Glascock County officials have obtained more complete and accurate information and knowledge regarding the County's disaster history, the presence of natural hazards, and the likelihood of each of these hazards occurring within the County, and the potential impacts and challenges these hazards present to the community.

All meetings were open to the public and advertised in *The Jefferson Reporter,* providing Glascock County citizens with the opportunity to comment on and offer suggestions concerning disaster mitigation actions within the community.

The committee found that it is difficult to predict the geographic threat, and therefore the resulting impact of some natural disasters as compared to others. Tornados and related severe weather strike randomly, usually affecting a small, localized area. On the other hand, natural disasters such as winter ice storms and drought can blanket the entire county, affecting all businesses, public facilities, and residents.

Recognizing this challenge, the committee identified both general and specific measures to aid in the mitigation of several natural hazards most likely to impact Glascock County. These measures include, but are not limited to, the protection of critical facilities and infrastructure, progressive governmental policies, and the proactive use of codes and regulations. It is worth noting that local government policies can often be the single most important and cost-efficient component of PDM.

The mission of the Glascock County Pre-Disaster Hazard Mitigation Planning Committee is to "*Make the citizens, businesses, communities and local governments of Glascock County less vulnerable to the effects of natural hazards through the effective administration of hazard mitigation grant programs, hazard risk assessments, wise floodplain management and a coordinated approach to mitigation policy through state, regional and local planning activities."*

The committee feels that this plan, when implemented, will help to make all of Glascock County a safer place to live and work for all its citizens.

SECTION II – 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:

FEMA Pre-Disaster Mitigation *How-to Guides #1, 2, 3, 7* (FEMA)
GEMA Supplements to FEMA Pre-Disaster Mitigation How-to Guides (GEMA)
The Jefferson Reporter
The Augusta Chronicle
Summary of Floods in the United States During 1990 and 1991
http://pubs.er.usgs.gov/publication/wsp2474
FLOODS IN GEORGIA. FREQUENCY AND MAGNITUDE. By. R. W. Carter.
Http://pubs.usgs.gov/circ/1951/0100/report.pdf
Georgia Archives University System of Georgia
http://cdm.sos.state.ga.us:2011/cdm/search/searchterm/FLOOD/mode/all/order/subjec/ad/desc

Web Sites:

FEMA www.fema.gov
GEMA www.gema.state.ga.us
Georgia Department of Community Affairs http://www.dca.state.ga.us/
Georgia Forestry Commission http://weather.gfc.state.ga.us
National Climatic Data Center www.ncdc.noaa.gov
SHELDUS™ | Spatial Hazard Events and Losses Database for the United States
http://webra.cas.sc.edu/hvri/products/sheldus.aspx
National Inventory of Dams http://crunch.tec.army.mil/nid/webpages/nid.cfm
https://www.anyplaceamerica.com/directory/ga/
New Georgia Encyclopedia http://www.georgiaencyclopedia.org/nge/Home.jsp
Georgia Archives University System of Georgia
http://cdm.sos.state.ga.us:2011/cdm/search/searchterm/FLOOD/mode/all/order/subjec/ad/desc
United States Census Bureau http://www.census.gov/
USDA, NASS, 2016 CENSUS OF AGRICULTURE
http://www.nass.usda.gov/Census_of_Agriculture/index.asp
http://www.sercc.com/ The Southeast Regional Climate Center (SERCC)
http://www.tornadohistoryproject.com/tornado/Georgia Tornado History Project

Other Sources:

American Red Cross
CSRA Regional Commission
Georgia Department of Natural Resources
Georgia Forestry Commission
Glascock County
Glascock County, Edge Hill
Glascock County, Gibson
Glascock County, Mitchell
Glascock County Board of Education
Glascock County Tax Assessor

APPENDICES

Appendix A – Hazard Identification, Risk Assessment and Vulnerability (HRV)

I. Hazard - Flood
   a. Description
   b. Data – GEMA Critical Facility Inventory Report
   c. Maps

II. Hazard- Drought
   a. Description
   b. Data– GEMA Critical Facility Inventory Report
   c. Maps

III. Hazard- Wildfire
   a. Description
   b. Data– GEMA Critical Facility Inventory Report
   c. Maps

IV. Hazard– Tornado
   a. Description
   b. Data– GEMA Critical Facility Inventory Report
   c. Maps

V. Hazard– Tropical Storms
   a. Description
   b. Data– GEMA Critical Facility Inventory Report

VI. Hazard E – Severe Weather: Severe Thunderstorms, Lightning, and Hail
   a. Description
   b. Data– GEMA Critical Facility Inventory Report

VII. Hazard F – Winter Storm
   a. Description
   b. Data– GEMA Critical Facility Inventory Report
   c. Maps

Appendix B – Growth and Development Trends / Community Information

I. Local Comp Plan Executive Summary
II. Statistics/tables from Local Comp Plan
III. Department of Labor Community Information
IV. USDA 2012 Census Report Glascock County

Appendix C –Planning documents

I. Executive Summary Local Emergency Operations
II. State of Georgia Hazard Mitigation Strategy
III. Hazard Risk Analysis
IV. Flood Insurance Study

V. Soil Survey Glascock and Jefferson Counties
VI. Community Wildfire Protection Plan
VII. Timber Impact Assessment GFC
VIII. Executive Summary CSRA Regional Commission Regional Plan

Appendix D – Worksheets used in planning process
I. Completed GEMA/local worksheets
II. Blank GEMA/local worksheets
III. Other misc. worksheets or planning process documents

Appendix E – Copies of Required Planning Documentation
I. Public notice
II. Meeting Agendas / Meeting Minutes
III. Sign-in sheets
IV. Local proclamations (copy of all resolution)
V. GEMA/FEMA correspondence

APPENDIX A

HAZARD IDENTIFICATION, RISK ASSESSMENT AND VULNERABILTY

FLOOD

Flood plains are flat lands that border streams and rivers that are normally dry, but are covered with water during floods. The susceptibility of a stream to flooding is dependent upon several different variables. Among these are topography, ground saturation, rainfall intensity and duration, soil types, drainage, drainage patterns of streams, and vegetative cover. A large amount of rainfall over a brief time can result in flash flood conditions. A small amount of rain can also result in floods where the soil is saturated from a previous wet period or if rain is concentrated in an area of impermeable surfaces such as large parking lots, paved roadways, etc. Topography and ground cover are contributing factors for floods where water runoff is greater in areas with steep slopes and little or no vegetation. The severity of a flood is measured in terms of depth of flooding.

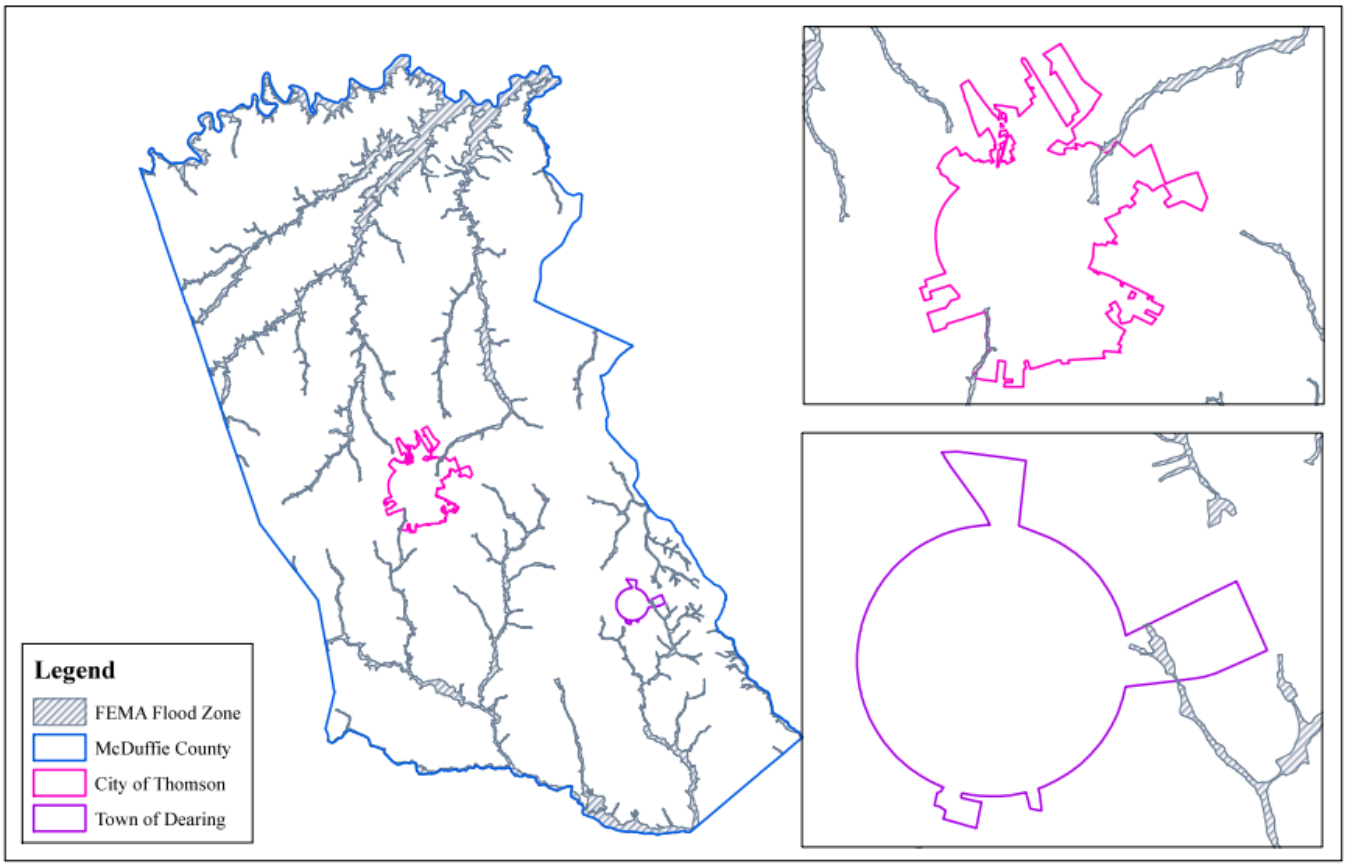
Flooding occurs when the volume of water exceeds the ability of a water body (stream, river, or lake) to contain it within its normal banks. Floodplains serve three major purposes: Natural water storage and conveyance, water quality maintenance, and groundwater recharge. These three purposes are inhibited when floodplains are misused or abused through improper an unsuitable land development. For example, if floodplains are filled to construct a building, valuable water storage and recharge areas are lost. This causes unnecessary flooding in previously dry areas and can damage buildings and other structures.

Severe flooding within Glasscock County is infrequent. The have been 3 documented flood events in the county in the past 20 years. These flooding events have caused nearly $22,000 in damage. The hazard frequency table indicates there is a 5% chance of an annual flooding events in the county.

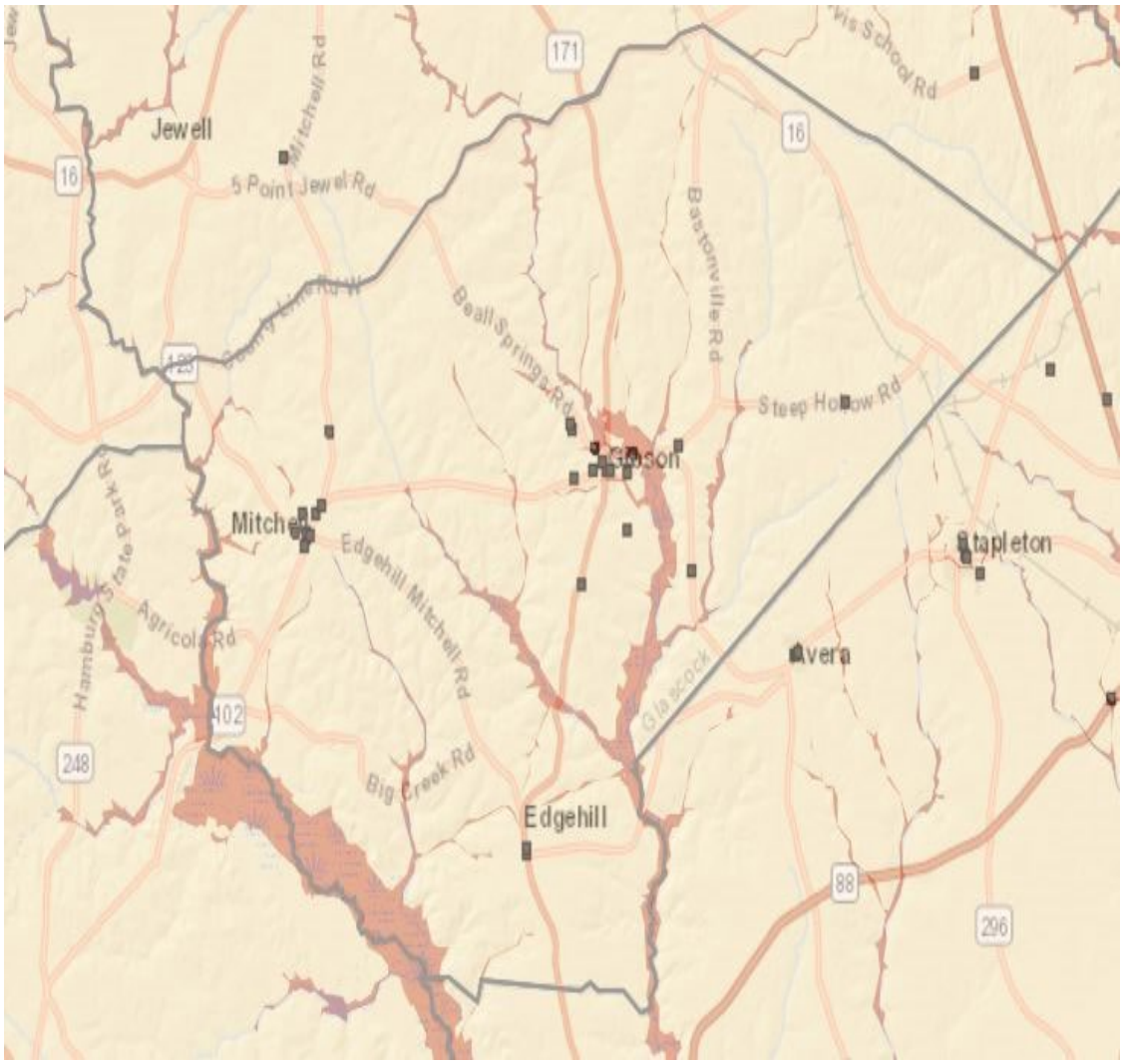
Based on tax data, parcel and flood maps, all or a portion of 105 known structures/properties valued at approximately $1.8 million and a population of 185 are located in known floodplains. The committee identified specific mitigation goals, objectives and action items related to flooding, which can be found in Chapter III, Section I.

Location	Date	Type	Deaths	Injuries	Porperty Damage	Crop Damage	Description
Countywide	8/16/1994	Flood	0	0	14,000	0	Heavy rainfall fell across the county, wasing our roads.
Countywide	10/4/1995	Flood	0	0	0	0	Unknown
HARTS	7/7/2011	Flood	0	0	8,000	0	The Glascock County Emergency Management Director reported that heavy rainfall on the order of five to six inches in a two to three hour period across southern Warren and northern Glascock county had resulted in excessive runoff from Beechtree Branch Creek. The creek flooded and washed out a culvert on Log Cabin Road, a dirt road in the far northeastern part of the county near the Warren county line.
					$ 22,000.00		

Jurisdiction	Flood Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Day	Night
Glascock County	1	8	$12,139,717	$1,150,000	675	3
Glascock County	0	8	$6,953,660	$2,580,000	134	2
Edge Hill	1	3	1,025,000	$400,000	5	0
Gibson	1	2	$4,300,000	$60,000	0	0
Gibson	0	2	$1,099,640	$500,000	50	0
Mitchell	1	9	$3,725,530	$633,500	51	0
Mitchell	0	1	$150,000	$350,000	0	0
TOTAL		**33**	**$29,393,547.00**	**$5,673,500.00**	**915**	**5**


Legend
FEMA Flood Zone
McDuffie County
City of Thomson
Town of Dearing

Glascock County Flood Plain Map from GMIS

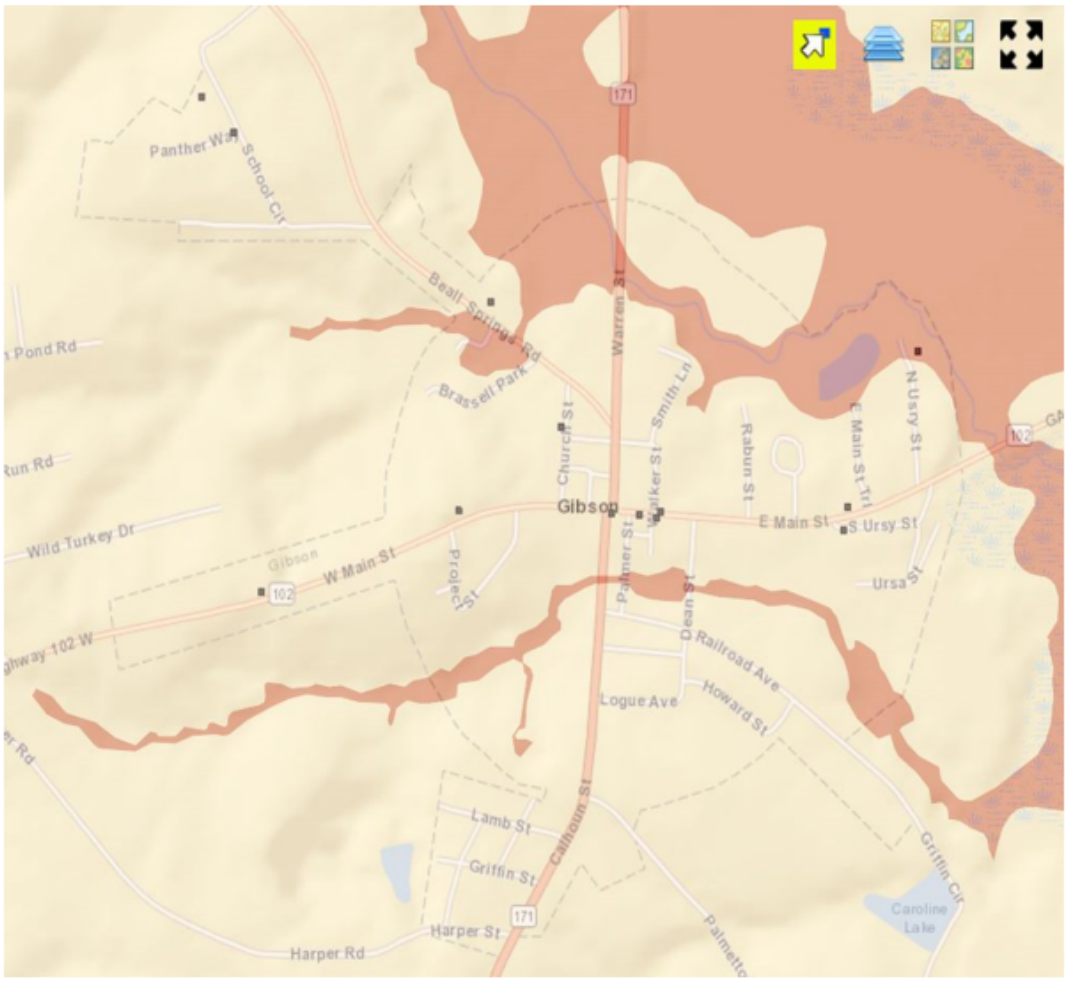


Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood protection system
2	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

Edge Hill Flood Plain Map from GMIS

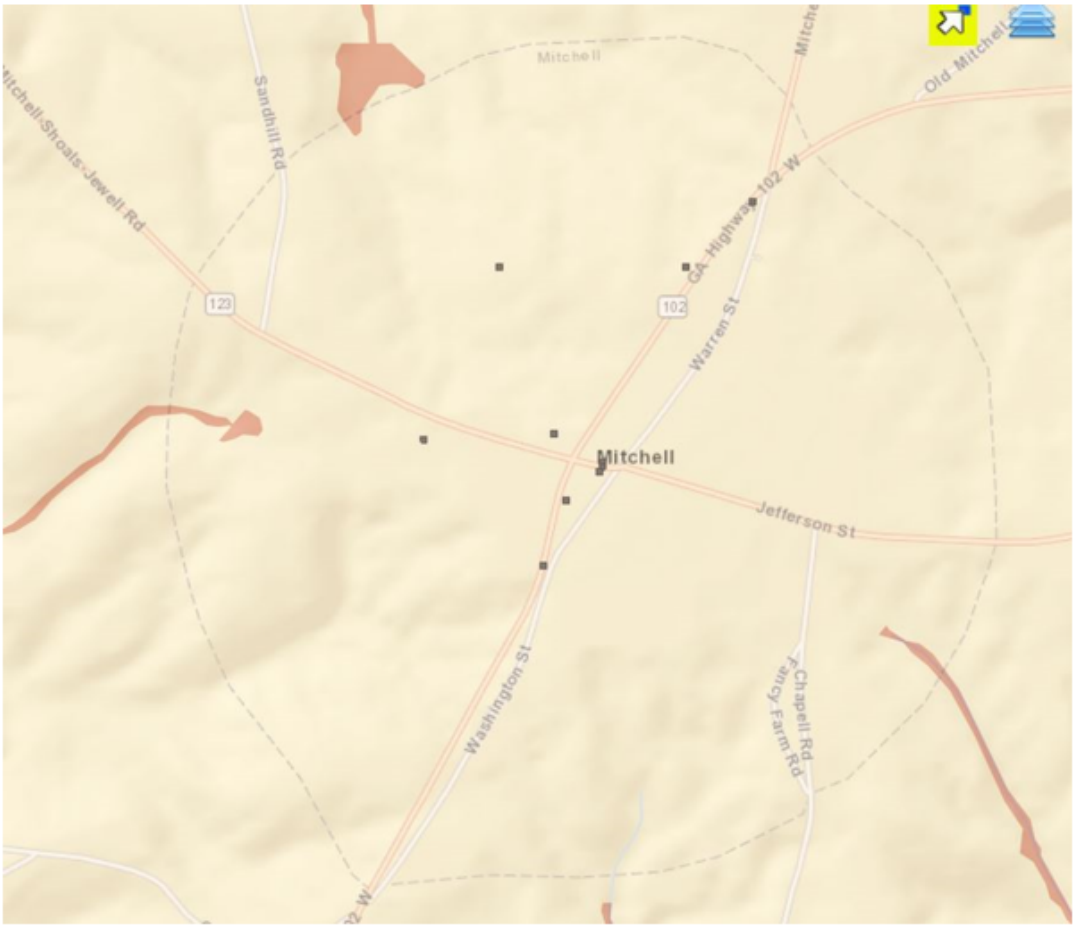
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood protection system
2	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

Gibson Flood Plains GMIS



Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood protection system
2	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

Mitchell Flood Plains GMIS



Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood protection system
2	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

DROUGHT

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 of water supply affects perceptions of drought conditions. The impacts of drought are vast, including limited water supplies in urban areas to insufficient water for farmland. Drought is not spatially defined and equally affects the entire planning area. Droughts do not have the immediate effects of other natural hazards, but sustained drought can cause severe economic stress to not only the agricultural interests in Glascock County, but to the entire State of Georgia.

The potential negative effects of sustained drought are numerous. Based on a 20-year cycle hazard history there is a 100% chance of an annual drought event in Glascock County. In addition to an increased threat of wildfires, drought can affect private wells, municipal and industrial water supplies, stream-water quality, water recreation facilities, hydropower generation, as well as agricultural and forest resources. In Glascock County there are 2,377 agricultural/forestry properties valued at approximately $105 million and include 1,103 heads of cattle and an estimated population of 66 that have the greatest potential to be damaged by drought. There is a population of 2,984 and approximately 8,841 structures/properties in the county with a value of nearly $276 million, which could be affected if wildfires break out due to drought conditions. Drought mitigation goals and objectives are in Chapter III, Section III.

Start	End	D0	D1	D2	D3	D4
7/6/2021	7/12/2021	0	0	0	0	0
6/29/2021	7/5/2021	0	0	0	0	0
6/22/2021	6/28/2021	0	0	0	0	0
6/15/2021	6/21/2021	0	0	0	0	0
6/8/2021	6/14/2021	0	0	0	0	0
6/1/2021	6/7/2021	18.14	0	0	0	0
5/25/2021	5/31/2021	0	0	0	0	0
5/18/2021	5/24/2021	0	0	0	0	0
5/11/2021	5/17/2021	0	0	0	0	0
5/4/2021	5/10/2021	100	0	0	0	0
4/27/2021	5/3/2021	100	0	0	0	0
4/20/2021	4/26/2021	100	0	0	0	0
4/13/2021	4/19/2021	0	0	0	0	0
4/6/2021	4/12/2021	0	0	0	0	0
3/30/2021	4/5/2021	0	0	0	0	0
3/23/2021	3/29/2021	0	0	0	0	0
3/16/2021	3/22/2021	0	0	0	0	0
3/9/2021	3/15/2021	0	0	0	0	0
3/2/2021	3/8/2021	0	0	0	0	0
2/23/2021	3/1/2021	0	0	0	0	0
2/16/2021	2/22/2021	0	0	0	0	0
2/9/2021	2/15/2021	0	0	0	0	0
2/2/2021	2/8/2021	0	0	0	0	0
1/26/2021	2/1/2021	0	0	0	0	0
1/19/2021	1/25/2021	0	0	0	0	0
1/12/2021	1/18/2021	0	0	0	0	0
1/5/2021	1/11/2021	0	0	0	0	0
12/29/2020	1/4/2021	89.85	0	0	0	0
12/22/2020	12/28/2020	89.85	0	0	0	0
12/15/2020	12/21/2020	89.85	0	0	0	0
12/8/2020	12/14/2020	89.85	0	0	0	0
12/1/2020	12/7/2020	88.59	0	0	0	0
11/24/2020	11/30/2020	88.59	0	0	0	0
11/17/2020	11/23/2020	0	0	0	0	0
11/10/2020	11/16/2020	0	0	0	0	0
11/3/2020	11/9/2020	0	0	0	0	0
10/27/2020	11/2/2020	0	0	0	0	0
10/20/2020	10/26/2020	0	0	0	0	0
10/13/2020	10/19/2020	0	0	0	0	0
10/6/2020	10/12/2020	0	0	0	0	0

9/29/2020	10/5/2020	0	0	0	0	0
9/22/2020	9/28/2020	0	0	0	0	0
9/15/2020	9/21/2020	0	0	0	0	0
9/8/2020	9/14/2020	0	0	0	0	0
9/1/2020	9/7/2020	0	0	0	0	0
8/25/2020	8/31/2020	0	0	0	0	0
8/18/2020	8/24/2020	0	0	0	0	0
8/11/2020	8/17/2020	58.46	0	0	0	0
8/4/2020	8/10/2020	93.74	0	0	0	0
7/28/2020	8/3/2020	96.37	0	0	0	0
7/21/2020	7/27/2020	96.37	0	0	0	0
7/14/2020	7/20/2020	0	0	0	0	0
7/7/2020	7/13/2020	0	0	0	0	0
6/30/2020	7/6/2020	0	0	0	0	0
6/23/2020	6/29/2020	0	0	0	0	0
6/16/2020	6/22/2020	0	0	0	0	0
6/9/2020	6/15/2020	0	0	0	0	0
6/2/2020	6/8/2020	0	0	0	0	0
5/26/2020	6/1/2020	0	0	0	0	0
5/19/2020	5/25/2020	0	0	0	0	0
5/12/2020	5/18/2020	0	0	0	0	0
5/5/2020	5/11/2020	0	0	0	0	0
4/28/2020	5/4/2020	0	0	0	0	0
4/21/2020	4/27/2020	0	0	0	0	0
4/14/2020	4/20/2020	0	0	0	0	0
4/7/2020	4/13/2020	0	0	0	0	0
3/31/2020	4/6/2020	0	0	0	0	0
3/24/2020	3/30/2020	0	0	0	0	0
3/17/2020	3/23/2020	0	0	0	0	0
3/10/2020	3/16/2020	0	0	0	0	0
3/3/2020	3/9/2020	0	0	0	0	0
2/25/2020	3/2/2020	0	0	0	0	0
2/18/2020	2/24/2020	0	0	0	0	0
2/11/2020	2/17/2020	0	0	0	0	0
2/4/2020	2/10/2020	0	0	0	0	0
1/28/2020	2/3/2020	0	0	0	0	0
1/21/2020	1/27/2020	0	0	0	0	0
1/14/2020	1/20/2020	0	0	0	0	0
1/7/2020	1/13/2020	0	0	0	0	0
12/31/2019	1/6/2020	0	0	0	0	0
12/24/2019	12/30/2019	0	0	0	0	0

12/17/2019	12/23/2019	0	0	0	0	0
12/10/2019	12/16/2019	0	0	0	0	0
12/3/2019	12/9/2019	0	0	0	0	0
11/26/2019	12/2/2019	45.11	0	0	0	0
11/19/2019	11/25/2019	45.11	0	0	0	0
11/12/2019	11/18/2019	100	2.39	0	0	0
11/5/2019	11/11/2019	100	100	0	0	0
10/29/2019	11/4/2019	100	100	27.45	0	0
10/22/2019	10/28/2019	100	100	27.45	0	0
10/15/2019	10/21/2019	100	100	99.03	0	0
10/8/2019	10/14/2019	100	100	0	0	0
10/1/2019	10/7/2019	100	9.26	0	0	0
9/24/2019	9/30/2019	100	9.26	0	0	0
9/17/2019	9/23/2019	36.61	0	0	0	0
9/10/2019	9/16/2019	35.23	0	0	0	0
9/3/2019	9/9/2019	26.01	0	0	0	0
8/27/2019	9/2/2019	0	0	0	0	0
8/20/2019	8/26/2019	0	0	0	0	0
8/13/2019	8/19/2019	66.54	0	0	0	0
8/6/2019	8/12/2019	0	0	0	0	0
7/30/2019	8/5/2019	0	0	0	0	0
7/23/2019	7/29/2019	0	0	0	0	0
7/16/2019	7/22/2019	0	0	0	0	0
7/9/2019	7/15/2019	0	0	0	0	0
7/2/2019	7/8/2019	0	0	0	0	0
6/25/2019	7/1/2019	0	0	0	0	0
6/18/2019	6/24/2019	0	0	0	0	0
6/11/2019	6/17/2019	100	0	0	0	0
6/4/2019	6/10/2019	100	100	0	0	0
5/28/2019	6/3/2019	100	0	0	0	0
5/21/2019	5/27/2019	100	0	0	0	0
5/14/2019	5/20/2019	100	0	0	0	0
5/7/2019	5/13/2019	100	0	0	0	0
4/30/2019	5/6/2019	100	0	0	0	0
4/23/2019	4/29/2019	100	0	0	0	0
4/16/2019	4/22/2019	100	0	0	0	0
4/9/2019	4/15/2019	100	0	0	0	0
4/2/2019	4/8/2019	100	0	0	0	0
3/26/2019	4/1/2019	100	0	0	0	0
3/19/2019	3/25/2019	100	0	0	0	0
3/12/2019	3/18/2019	100	0	0	0	0

3/5/2019	3/11/2019	0	0	0	0	0
2/26/2019	3/4/2019	0	0	0	0	0
2/19/2019	2/25/2019	0	0	0	0	0
2/12/2019	2/18/2019	0	0	0	0	0
2/5/2019	2/11/2019	0	0	0	0	0
1/29/2019	2/4/2019	0	0	0	0	0
1/22/2019	1/28/2019	0	0	0	0	0
1/15/2019	1/21/2019	0	0	0	0	0
1/8/2019	1/14/2019	0	0	0	0	0
1/1/2019	1/7/2019	0	0	0	0	0
12/25/2018	12/31/2018	0	0	0	0	0
12/18/2018	12/24/2018	0	0	0	0	0
12/11/2018	12/17/2018	0	0	0	0	0
12/4/2018	12/10/2018	0	0	0	0	0
11/27/2018	12/3/2018	0	0	0	0	0
11/20/2018	11/26/2018	0	0	0	0	0
11/13/2018	11/19/2018	0	0	0	0	0
11/6/2018	11/12/2018	0	0	0	0	0
10/30/2018	11/5/2018	0	0	0	0	0
10/23/2018	10/29/2018	0	0	0	0	0
10/16/2018	10/22/2018	0	0	0	0	0
10/9/2018	10/15/2018	84.95	0	0	0	0
10/2/2018	10/8/2018	84.95	0	0	0	0
9/25/2018	10/1/2018	77.26	0	0	0	0
9/18/2018	9/24/2018	0	0	0	0	0
9/11/2018	9/17/2018	0	0	0	0	0
9/4/2018	9/10/2018	0	0	0	0	0
8/28/2018	9/3/2018	0	0	0	0	0
8/21/2018	8/27/2018	0	0	0	0	0
8/14/2018	8/20/2018	0	0	0	0	0
8/7/2018	8/13/2018	0	0	0	0	0
7/31/2018	8/6/2018	0	0	0	0	0
7/24/2018	7/30/2018	0	0	0	0	0
7/17/2018	7/23/2018	0	0	0	0	0
7/10/2018	7/16/2018	0	0	0	0	0
7/3/2018	7/9/2018	0	0	0	0	0
6/26/2018	7/2/2018	0	0	0	0	0
6/19/2018	6/25/2018	0	0	0	0	0
6/12/2018	6/18/2018	0	0	0	0	0
6/5/2018	6/11/2018	0	0	0	0	0
5/29/2018	6/4/2018	0	0	0	0	0

5/22/2018	5/28/2018	40.1	0	0	0	0
5/15/2018	5/21/2018	100	40.61	0	0	0
5/8/2018	5/14/2018	100	40.61	0	0	0
5/1/2018	5/7/2018	100	35.13	0	0	0
4/24/2018	4/30/2018	100	35.12	0	0	0
4/17/2018	4/23/2018	100	100	0	0	0
4/10/2018	4/16/2018	100	100	0	0	0
4/3/2018	4/9/2018	100	19.71	0	0	0
3/27/2018	4/2/2018	100	19.71	0	0	0
3/20/2018	3/26/2018	100	19.72	0	0	0
3/13/2018	3/19/2018	100	100	0	0	0
3/6/2018	3/12/2018	100	100	0	0	0
2/27/2018	3/5/2018	100	0	0	0	0
2/20/2018	2/26/2018	100	0	0	0	0
2/13/2018	2/19/2018	70.26	0	0	0	0
2/6/2018	2/12/2018	100	0	0	0	0
1/30/2018	2/5/2018	100	0	0	0	0
1/23/2018	1/29/2018	100	100	0	0	0
1/16/2018	1/22/2018	100	100	0	0	0
1/9/2018	1/15/2018	100	100	0	0	0
1/2/2018	1/8/2018	100	100	0	0	0
12/26/2017	1/1/2018	100	100	0	0	0
12/19/2017	12/25/2017	100	100	0	0	0
12/12/2017	12/18/2017	100	100	0	0	0
12/5/2017	12/11/2017	100	100	0	0	0
11/28/2017	12/4/2017	100	99.96	0	0	0
11/21/2017	11/27/2017	100	1.59	0	0	0
11/14/2017	11/20/2017	100	1.59	0	0	0
11/7/2017	11/13/2017	100	0	0	0	0
10/31/2017	11/6/2017	100	0	0	0	0
10/24/2017	10/30/2017	100	0	0	0	0
10/17/2017	10/23/2017	100	0	0	0	0
10/10/2017	10/16/2017	0	0	0	0	0
10/3/2017	10/9/2017	0	0	0	0	0
9/26/2017	10/2/2017	0	0	0	0	0
9/19/2017	9/25/2017	0	0	0	0	0
9/12/2017	9/18/2017	0	0	0	0	0
9/5/2017	9/11/2017	0	0	0	0	0
8/29/2017	9/4/2017	0	0	0	0	0
8/22/2017	8/28/2017	0	0	0	0	0
8/15/2017	8/21/2017	0	0	0	0	0

8/8/2017	8/14/2017	0	0	0	0	0
8/1/2017	8/7/2017	0	0	0	0	0
7/25/2017	7/31/2017	0	0	0	0	0
7/18/2017	7/24/2017	0	0	0	0	0
7/11/2017	7/17/2017	0	0	0	0	0
7/4/2017	7/10/2017	0	0	0	0	0
6/27/2017	7/3/2017	100	0	0	0	0
6/20/2017	6/26/2017	55.75	0	0	0	0
6/13/2017	6/19/2017	55.75	0	0	0	0
6/6/2017	6/12/2017	55.75	0	0	0	0
5/30/2017	6/5/2017	55.75	11.25	0	0	0
5/23/2017	5/29/2017	100	11.25	0	0	0
5/16/2017	5/22/2017	100	11.26	0	0	0
5/9/2017	5/15/2017	100	11.26	0	0	0
5/2/2017	5/8/2017	100	11.26	0	0	0
4/25/2017	5/1/2017	100	11.26	0	0	0
4/18/2017	4/24/2017	100	11.25	0	0	0
4/11/2017	4/17/2017	99.03	0	0	0	0
4/4/2017	4/10/2017	99.03	0	0	0	0
3/28/2017	4/3/2017	99.03	0	0	0	0
3/21/2017	3/27/2017	64.79	0	0	0	0
3/14/2017	3/20/2017	0	0	0	0	0
3/7/2017	3/13/2017	0	0	0	0	0
2/28/2017	3/6/2017	0	0	0	0	0
2/21/2017	2/27/2017	0	0	0	0	0
2/14/2017	2/20/2017	0	0	0	0	0
2/7/2017	2/13/2017	33.26	0	0	0	0
1/31/2017	2/6/2017	33.26	0	0	0	0
1/24/2017	1/30/2017	33.26	0	0	0	0
1/17/2017	1/23/2017	100	41.7	0	0	0
1/10/2017	1/16/2017	100	41.7	0	0	0
1/3/2017	1/9/2017	100	100	0	0	0
12/27/2016	1/2/2017	100	100	100	100	0
12/20/2016	12/26/2016	100	100	100	100	0
12/13/2016	12/19/2016	100	100	100	100	0
12/6/2016	12/12/2016	100	100	100	100	0
11/29/2016	12/5/2016	100	100	100	100	0
11/22/2016	11/28/2016	100	100	100	56.62	0
11/15/2016	11/21/2016	100	100	76.71	0	0
11/8/2016	11/14/2016	100	100	0.12	0	0
11/1/2016	11/7/2016	100	100	0.12	0	0

10/25/2016	10/31/2016	100	100	0.12	0	0
10/18/2016	10/24/2016	100	100	0.12	0	0
10/11/2016	10/17/2016	100	25.25	0	0	0
10/4/2016	10/10/2016	100	21.09	0	0	0
9/27/2016	10/3/2016	100	19.92	0	0	0
9/20/2016	9/26/2016	87.94	19.92	0	0	0
9/13/2016	9/19/2016	87.94	19.92	0	0	0
9/6/2016	9/12/2016	87.94	19.92	0	0	0
8/30/2016	9/5/2016	100	86.66	0	0	0
8/23/2016	8/29/2016	100	86.66	0	0	0
8/16/2016	8/22/2016	100	29.98	0	0	0
8/9/2016	8/15/2016	100	0	0	0	0
8/2/2016	8/8/2016	100	0	0	0	0
7/26/2016	8/1/2016	100	0	0	0	0
7/19/2016	7/25/2016	100	0	0	0	0
7/12/2016	7/18/2016	71.85	0	0	0	0
7/5/2016	7/11/2016	51.65	0	0	0	0
6/28/2016	7/4/2016	51.65	0	0	0	0
6/21/2016	6/27/2016	54.3	0	0	0	0
6/14/2016	6/20/2016	38.36	0	0	0	0
6/7/2016	6/13/2016	0	0	0	0	0
5/31/2016	6/6/2016	0	0	0	0	0
5/24/2016	5/30/2016	0	0	0	0	0
5/17/2016	5/23/2016	1.79	0	0	0	0
5/10/2016	5/16/2016	1.79	0	0	0	0
5/3/2016	5/9/2016	1.79	0	0	0	0
4/26/2016	5/2/2016	0	0	0	0	0
4/19/2016	4/25/2016	0	0	0	0	0
4/12/2016	4/18/2016	0	0	0	0	0
4/5/2016	4/11/2016	0	0	0	0	0
3/29/2016	4/4/2016	94.5	0	0	0	0
3/22/2016	3/28/2016	0	0	0	0	0
3/15/2016	3/21/2016	0	0	0	0	0
3/8/2016	3/14/2016	0	0	0	0	0
3/1/2016	3/7/2016	0	0	0	0	0
2/23/2016	2/29/2016	0	0	0	0	0
2/16/2016	2/22/2016	0	0	0	0	0
2/9/2016	2/15/2016	0	0	0	0	0
2/2/2016	2/8/2016	0	0	0	0	0
1/26/2016	2/1/2016	0	0	0	0	0
1/19/2016	1/25/2016	0	0	0	0	0

1/12/2016	1/18/2016	0	0	0	0	0
1/5/2016	1/11/2016	0	0	0	0	0
12/29/2015	1/4/2016	0	0	0	0	0
12/22/2015	12/28/2015	0	0	0	0	0
12/15/2015	12/21/2015	0	0	0	0	0
12/8/2015	12/14/2015	0	0	0	0	0
12/1/2015	12/7/2015	0	0	0	0	0
11/24/2015	11/30/2015	0	0	0	0	0
11/17/2015	11/23/2015	0	0	0	0	0
11/10/2015	11/16/2015	0	0	0	0	0
11/3/2015	11/9/2015	0	0	0	0	0
10/27/2015	11/2/2015	0	0	0	0	0
10/20/2015	10/26/2015	0	0	0	0	0
10/13/2015	10/19/2015	0	0	0	0	0
10/6/2015	10/12/2015	0	0	0	0	0
9/29/2015	10/5/2015	0	0	0	0	0
9/22/2015	9/28/2015	0.12	0	0	0	0
9/15/2015	9/21/2015	0.41	0	0	0	0
9/8/2015	9/14/2015	76.11	2.2	0	0	0
9/1/2015	9/7/2015	76.11	2.2	0	0	0
8/25/2015	8/31/2015	100	79.67	0	0	0
8/18/2015	8/24/2015	100	79.67	0	0	0
8/11/2015	8/17/2015	100	79.67	0	0	0
8/4/2015	8/10/2015	100	79.67	0	0	0
7/28/2015	8/3/2015	100	0	0	0	0
7/21/2015	7/27/2015	0.05	0	0	0	0
7/14/2015	7/20/2015	0.04	0	0	0	0
7/7/2015	7/13/2015	0.04	0	0	0	0
6/30/2015	7/6/2015	0.04	0	0	0	0
6/23/2015	6/29/2015	0.04	0	0	0	0
6/16/2015	6/22/2015	0	0	0	0	0
6/9/2015	6/15/2015	0	0	0	0	0
6/2/2015	6/8/2015	0	0	0	0	0
5/26/2015	6/1/2015	0	0	0	0	0
5/19/2015	5/25/2015	0	0	0	0	0
5/12/2015	5/18/2015	0	0	0	0	0
5/5/2015	5/11/2015	0	0	0	0	0
4/28/2015	5/4/2015	0	0	0	0	0
4/21/2015	4/27/2015	0	0	0	0	0
4/14/2015	4/20/2015	0	0	0	0	0
4/7/2015	4/13/2015	0	0	0	0	0

3/31/2015	4/6/2015	0	0	0	0	0
3/24/2015	3/30/2015	0	0	0	0	0
3/17/2015	3/23/2015	0	0	0	0	0
3/10/2015	3/16/2015	0	0	0	0	0
3/3/2015	3/9/2015	0	0	0	0	0
2/24/2015	3/2/2015	31.19	0	0	0	0
2/17/2015	2/23/2015	31.19	0	0	0	0
2/10/2015	2/16/2015	31.19	0	0	0	0
2/3/2015	2/9/2015	31.19	0	0	0	0
1/27/2015	2/2/2015	31.19	0	0	0	0
1/20/2015	1/26/2015	31.19	0	0	0	0
1/13/2015	1/19/2015	31.19	0	0	0	0
1/6/2015	1/12/2015	71.6	0	0	0	0
12/30/2014	1/5/2015	79.97	0	0	0	0
12/23/2014	12/29/2014	100	98.02	0	0	0
12/16/2014	12/22/2014	100	98.02	0	0	0
12/9/2014	12/15/2014	100	96.44	0	0	0
12/2/2014	12/8/2014	100	24.19	0	0	0
11/25/2014	12/1/2014	100	24.19	0	0	0
11/18/2014	11/24/2014	100	24.19	0	0	0
11/11/2014	11/17/2014	100	24.19	0	0	0
11/4/2014	11/10/2014	100	24.19	0	0	0
10/28/2014	11/3/2014	100	0	0	0	0
10/21/2014	10/27/2014	100	0	0	0	0
10/14/2014	10/20/2014	73.55	0	0	0	0
10/7/2014	10/13/2014	77.61	0	0	0	0
9/30/2014	10/6/2014	85.39	0	0	0	0
9/23/2014	9/29/2014	85.39	0	0	0	0
9/16/2014	9/22/2014	85.39	0	0	0	0
9/9/2014	9/15/2014	85.39	0	0	0	0
9/2/2014	9/8/2014	85.39	0	0	0	0
8/26/2014	9/1/2014	0	0	0	0	0
8/19/2014	8/25/2014	0	0	0	0	0
8/12/2014	8/18/2014	0	0	0	0	0
8/5/2014	8/11/2014	0	0	0	0	0
7/29/2014	8/4/2014	0	0	0	0	0
7/22/2014	7/28/2014	0	0	0	0	0
7/15/2014	7/21/2014	100	0	0	0	0
7/8/2014	7/14/2014	92.2	0	0	0	0
7/1/2014	7/7/2014	91.5	0	0	0	0
6/24/2014	6/30/2014	84.66	0	0	0	0

6/17/2014	6/23/2014	0	0	0	0	0
6/10/2014	6/16/2014	0	0	0	0	0
6/3/2014	6/9/2014	0	0	0	0	0
5/27/2014	6/2/2014	0	0	0	0	0
5/20/2014	5/26/2014	0	0	0	0	0
5/13/2014	5/19/2014	0	0	0	0	0
5/6/2014	5/12/2014	0	0	0	0	0
4/29/2014	5/5/2014	0	0	0	0	0
4/22/2014	4/28/2014	0	0	0	0	0
4/15/2014	4/21/2014	0	0	0	0	0
4/8/2014	4/14/2014	0	0	0	0	0
4/1/2014	4/7/2014	0	0	0	0	0
3/25/2014	3/31/2014	0	0	0	0	0
3/18/2014	3/24/2014	0	0	0	0	0
3/11/2014	3/17/2014	0	0	0	0	0
3/4/2014	3/10/2014	0	0	0	0	0
2/25/2014	3/3/2014	0	0	0	0	0
2/18/2014	2/24/2014	0	0	0	0	0
2/11/2014	2/17/2014	0	0	0	0	0
2/4/2014	2/10/2014	0	0	0	0	0
1/28/2014	2/3/2014	0	0	0	0	0
1/21/2014	1/27/2014	0	0	0	0	0
1/14/2014	1/20/2014	0	0	0	0	0
1/7/2014	1/13/2014	0	0	0	0	0
12/31/2013	1/6/2014	0	0	0	0	0
12/24/2013	12/30/2013	100	0	0	0	0
12/17/2013	12/23/2013	100	0	0	0	0
12/10/2013	12/16/2013	100	0	0	0	0
12/3/2013	12/9/2013	100	0	0	0	0
11/26/2013	12/2/2013	100	0	0	0	0
11/19/2013	11/25/2013	100	0	0	0	0
11/12/2013	11/18/2013	100	0	0	0	0
11/5/2013	11/11/2013	100	0	0	0	0
10/29/2013	11/4/2013	100	0	0	0	0
10/22/2013	10/28/2013	68.03	0	0	0	0
10/15/2013	10/21/2013	0	0	0	0	0
10/8/2013	10/14/2013	0	0	0	0	0
10/1/2013	10/7/2013	0	0	0	0	0
9/24/2013	9/30/2013	0	0	0	0	0
9/17/2013	9/23/2013	0	0	0	0	0
9/10/2013	9/16/2013	0	0	0	0	0

9/3/2013	9/9/2013	0	0	0	0	0
8/27/2013	9/2/2013	0	0	0	0	0
8/20/2013	8/26/2013	0	0	0	0	0
8/13/2013	8/19/2013	0	0	0	0	0
8/6/2013	8/12/2013	0	0	0	0	0
7/30/2013	8/5/2013	0	0	0	0	0
7/23/2013	7/29/2013	0	0	0	0	0
7/16/2013	7/22/2013	0	0	0	0	0
7/9/2013	7/15/2013	0	0	0	0	0
7/2/2013	7/8/2013	0	0	0	0	0
6/25/2013	7/1/2013	0	0	0	0	0
6/18/2013	6/24/2013	0	0	0	0	0
6/11/2013	6/17/2013	0	0	0	0	0
6/4/2013	6/10/2013	0	0	0	0	0
5/28/2013	6/3/2013	0	0	0	0	0
5/21/2013	5/27/2013	0	0	0	0	0
5/14/2013	5/20/2013	0	0	0	0	0
5/7/2013	5/13/2013	0	0	0	0	0
4/30/2013	5/6/2013	0	0	0	0	0
4/23/2013	4/29/2013	2.71	0	0	0	0
4/16/2013	4/22/2013	10.17	0	0	0	0
4/9/2013	4/15/2013	10.17	0	0	0	0
4/2/2013	4/8/2013	100	6.04	0	0	0
3/26/2013	4/1/2013	100	6.04	0	0	0
3/19/2013	3/25/2013	100	100	2.53	0	0
3/12/2013	3/18/2013	100	100	100	0	0
3/5/2013	3/11/2013	100	100	100	0	0
2/26/2013	3/4/2013	100	100	100	0	0
2/19/2013	2/25/2013	100	100	100	100	0
2/12/2013	2/18/2013	100	100	100	100	0
2/5/2013	2/11/2013	100	100	100	100	54.4
1/29/2013	2/4/2013	100	100	100	100	54.4
1/22/2013	1/28/2013	100	100	100	100	54.4
1/15/2013	1/21/2013	100	100	100	100	54.4
1/8/2013	1/14/2013	100	100	100	100	54.4
1/1/2013	1/7/2013	100	100	100	100	54.4
12/25/2012	12/31/2012	100	100	100	100	54.4
12/18/2012	12/24/2012	100	100	100	100	54.4
12/11/2012	12/17/2012	100	100	100	100	54.4
12/4/2012	12/10/2012	100	100	100	100	54.4
11/27/2012	12/3/2012	100	100	100	100	54.4

11/20/2012	11/26/2012	100	100	100	100	54.4
11/13/2012	11/19/2012	100	100	100	97.44	54.4
11/6/2012	11/12/2012	100	100	100	97.44	54.4
10/30/2012	11/5/2012	100	100	100	97.44	54.4
10/23/2012	10/29/2012	100	100	100	97.44	54.4
10/16/2012	10/22/2012	100	100	100	97.44	54.4
10/9/2012	10/15/2012	100	100	100	97.44	54.4
10/2/2012	10/8/2012	100	100	100	97.44	54.4
9/25/2012	10/1/2012	100	100	100	97.44	54.06
9/18/2012	9/24/2012	100	100	100	97.44	54.06
9/11/2012	9/17/2012	100	100	100	97.44	54.06
9/4/2012	9/10/2012	100	100	100	97.44	54.06
8/28/2012	9/3/2012	100	100	100	100	54.06
8/21/2012	8/27/2012	100	100	100	100	86.88
8/14/2012	8/20/2012	100	100	100	100	86.88
8/7/2012	8/13/2012	100	100	100	100	100
7/31/2012	8/6/2012	100	100	100	100	100
7/24/2012	7/30/2012	100	100	100	100	100
7/17/2012	7/23/2012	100	100	100	100	100
7/10/2012	7/16/2012	100	100	100	100	100
7/3/2012	7/9/2012	100	100	100	100	100
6/26/2012	7/2/2012	100	100	100	100	100
6/19/2012	6/25/2012	100	100	100	100	100
6/12/2012	6/18/2012	100	100	100	100	100
6/5/2012	6/11/2012	100	100	100	100	100
5/29/2012	6/4/2012	100	100	100	100	100
5/22/2012	5/28/2012	100	100	100	100	100
5/15/2012	5/21/2012	100	100	100	100	100
5/8/2012	5/14/2012	100	100	100	100	60.91
5/1/2012	5/7/2012	100	100	100	100	60.91
4/24/2012	4/30/2012	100	100	100	100	0.18
4/17/2012	4/23/2012	100	100	100	100	0.18
4/10/2012	4/16/2012	100	100	100	100	0.18
4/3/2012	4/9/2012	100	100	100	100	0
3/27/2012	4/2/2012	100	100	100	100	0
3/20/2012	3/26/2012	100	100	100	100	0
3/13/2012	3/19/2012	100	100	100	100	0
3/6/2012	3/12/2012	100	100	100	100	0
2/28/2012	3/5/2012	100	100	100	100	0
2/21/2012	2/27/2012	100	100	100	100	0
2/14/2012	2/20/2012	100	100	100	100	0

2/7/2012	2/13/2012	100	100	100	100	0
1/31/2012	2/6/2012	100	100	100	100	0
1/24/2012	1/30/2012	100	100	100	100	0
1/17/2012	1/23/2012	100	100	100	100	0
1/10/2012	1/16/2012	100	100	100	100	0
1/3/2012	1/9/2012	100	100	100	100	0
12/27/2011	1/2/2012	100	100	100	100	0
12/20/2011	12/26/2011	100	100	100	100	0
12/13/2011	12/19/2011	100	100	100	58.95	0
12/6/2011	12/12/2011	100	100	100	58.95	0
11/29/2011	12/5/2011	100	100	100	58.95	0
11/22/2011	11/28/2011	100	100	100	58.95	0
11/15/2011	11/21/2011	100	100	100	58.95	0
11/8/2011	11/14/2011	100	100	100	0	0
11/1/2011	11/7/2011	100	100	100	0	0
10/25/2011	10/31/2011	100	100	100	0	0
10/18/2011	10/24/2011	100	100	100	91.58	0
10/11/2011	10/17/2011	100	100	100	100	0
10/4/2011	10/10/2011	100	100	100	100	0
9/27/2011	10/3/2011	100	100	100	100	0
9/20/2011	9/26/2011	100	100	100	100	0
9/13/2011	9/19/2011	100	100	100	100	0
9/6/2011	9/12/2011	100	100	100	100	0
8/30/2011	9/5/2011	100	100	100	100	0
8/23/2011	8/29/2011	100	100	100	2.3	0
8/16/2011	8/22/2011	100	100	100	2.3	0
8/9/2011	8/15/2011	100	100	100	2.3	0
8/2/2011	8/8/2011	100	100	100	100	0
7/26/2011	8/1/2011	100	100	100	100	0
7/19/2011	7/25/2011	100	100	100	100	0
7/12/2011	7/18/2011	100	100	100	100	0
7/5/2011	7/11/2011	100	100	100	100	0
6/28/2011	7/4/2011	100	100	100	100	0
6/21/2011	6/27/2011	100	100	100	100	0
6/14/2011	6/20/2011	100	100	100	0	0
6/7/2011	6/13/2011	100	100	100	0	0
5/31/2011	6/6/2011	100	100	100	0	0
5/24/2011	5/30/2011	100	100	97.65	0	0
5/17/2011	5/23/2011	100	100	97.65	0	0
5/10/2011	5/16/2011	100	100	0	0	0
5/3/2011	5/9/2011	100	100	0	0	0

4/26/2011	5/2/2011	100	100	0	0	0
4/19/2011	4/25/2011	100	100	0	0	0
4/12/2011	4/18/2011	100	100	0	0	0
4/5/2011	4/11/2011	100	100	0	0	0
3/29/2011	4/4/2011	100	100	0	0	0
3/22/2011	3/28/2011	100	100	0	0	0
3/15/2011	3/21/2011	100	99.67	0	0	0
3/8/2011	3/14/2011	100	99.28	0	0	0
3/1/2011	3/7/2011	100	99.28	0	0	0
2/22/2011	2/28/2011	100	99.28	0	0	0
2/15/2011	2/21/2011	100	99.28	0	0	0
2/8/2011	2/14/2011	100	99.28	0	0	0
2/1/2011	2/7/2011	100	100	0	0	0
1/25/2011	1/31/2011	100	100	0	0	0
1/18/2011	1/24/2011	100	100	0	0	0
1/11/2011	1/17/2011	100	100	0	0	0
1/4/2011	1/10/2011	100	100	0	0	0
12/28/2010	1/3/2011	100	100	0	0	0
12/21/2010	12/27/2010	100	100	0	0	0
12/14/2010	12/20/2010	100	100	0	0	0
12/7/2010	12/13/2010	100	100	0	0	0
11/30/2010	12/6/2010	100	100	0	0	0
11/23/2010	11/29/2010	100	100	0	0	0
11/16/2010	11/22/2010	100	0	0	0	0
11/9/2010	11/15/2010	100	0	0	0	0
11/2/2010	11/8/2010	100	0	0	0	0
10/26/2010	11/1/2010	100	0	0	0	0
10/19/2010	10/25/2010	100	0	0	0	0
10/12/2010	10/18/2010	100	0	0	0	0
10/5/2010	10/11/2010	100	0	0	0	0
9/28/2010	10/4/2010	100	0	0	0	0
9/21/2010	9/27/2010	100	0	0	0	0
9/14/2010	9/20/2010	100	0	0	0	0
9/7/2010	9/13/2010	0	0	0	0	0
8/31/2010	9/6/2010	0	0	0	0	0
8/24/2010	8/30/2010	0	0	0	0	0
8/17/2010	8/23/2010	8.12	0	0	0	0
8/10/2010	8/16/2010	3.83	0	0	0	0
8/3/2010	8/9/2010	3.83	0	0	0	0
7/27/2010	8/2/2010	41.52	0	0	0	0
7/20/2010	7/26/2010	11.23	0	0	0	0

7/13/2010	7/19/2010	0	0	0	0	0
7/6/2010	7/12/2010	0	0	0	0	0
6/29/2010	7/5/2010	0	0	0	0	0
6/22/2010	6/28/2010	0	0	0	0	0
6/15/2010	6/21/2010	0	0	0	0	0
6/8/2010	6/14/2010	0	0	0	0	0
6/1/2010	6/7/2010	0	0	0	0	0
5/25/2010	5/31/2010	0	0	0	0	0
5/18/2010	5/24/2010	0	0	0	0	0
5/11/2010	5/17/2010	0	0	0	0	0
5/4/2010	5/10/2010	0	0	0	0	0
4/27/2010	5/3/2010	0	0	0	0	0
4/20/2010	4/26/2010	0	0	0	0	0
4/13/2010	4/19/2010	0	0	0	0	0
4/6/2010	4/12/2010	0	0	0	0	0
3/30/2010	4/5/2010	0	0	0	0	0
3/23/2010	3/29/2010	0	0	0	0	0
3/16/2010	3/22/2010	0	0	0	0	0
3/9/2010	3/15/2010	0	0	0	0	0
3/2/2010	3/8/2010	0	0	0	0	0
2/23/2010	3/1/2010	0	0	0	0	0
2/16/2010	2/22/2010	0	0	0	0	0
2/9/2010	2/15/2010	0	0	0	0	0
2/2/2010	2/8/2010	0	0	0	0	0
1/26/2010	2/1/2010	0	0	0	0	0
1/19/2010	1/25/2010	0	0	0	0	0
1/12/2010	1/18/2010	0	0	0	0	0
1/5/2010	1/11/2010	0	0	0	0	0
12/29/2009	1/4/2010	0	0	0	0	0
12/22/2009	12/28/2009	0	0	0	0	0
12/15/2009	12/21/2009	0	0	0	0	0
12/8/2009	12/14/2009	0	0	0	0	0
12/1/2009	12/7/2009	0	0	0	0	0
11/24/2009	11/30/2009	0	0	0	0	0
11/17/2009	11/23/2009	0	0	0	0	0
11/10/2009	11/16/2009	0	0	0	0	0
11/3/2009	11/9/2009	0	0	0	0	0
10/27/2009	11/2/2009	0	0	0	0	0
10/20/2009	10/26/2009	0	0	0	0	0
10/13/2009	10/19/2009	0	0	0	0	0
10/6/2009	10/12/2009	0	0	0	0	0

9/29/2009	10/5/2009	0	0	0	0	0
9/22/2009	9/28/2009	0	0	0	0	0
9/15/2009	9/21/2009	97.37	0	0	0	0
9/8/2009	9/14/2009	100	0	0	0	0
9/1/2009	9/7/2009	100	0	0	0	0
8/25/2009	8/31/2009	100	0	0	0	0
8/18/2009	8/24/2009	100	0	0	0	0
8/11/2009	8/17/2009	100	0	0	0	0
8/4/2009	8/10/2009	100	0	0	0	0
7/28/2009	8/3/2009	100	0	0	0	0
7/21/2009	7/27/2009	100	0	0	0	0
7/14/2009	7/20/2009	100	0	0	0	0
7/7/2009	7/13/2009	100	0	0	0	0
6/30/2009	7/6/2009	0	0	0	0	0
6/23/2009	6/29/2009	0	0	0	0	0
6/16/2009	6/22/2009	0	0	0	0	0
6/9/2009	6/15/2009	0	0	0	0	0
6/2/2009	6/8/2009	0	0	0	0	0
5/26/2009	6/1/2009	0	0	0	0	0
5/19/2009	5/25/2009	0	0	0	0	0
5/12/2009	5/18/2009	0	0	0	0	0
5/5/2009	5/11/2009	0	0	0	0	0
4/28/2009	5/4/2009	0	0	0	0	0
4/21/2009	4/27/2009	0	0	0	0	0
4/14/2009	4/20/2009	0	0	0	0	0
4/7/2009	4/13/2009	0	0	0	0	0
3/31/2009	4/6/2009	100	0	0	0	0
3/24/2009	3/30/2009	100	100	0	0	0
3/17/2009	3/23/2009	100	100	0	0	0
3/10/2009	3/16/2009	100	100	0	0	0
3/3/2009	3/9/2009	100	100	0	0	0
2/24/2009	3/2/2009	100	100	0	0	0
2/17/2009	2/23/2009	100	0	0	0	0
2/10/2009	2/16/2009	100	0	0	0	0
2/3/2009	2/9/2009	0	0	0	0	0
1/27/2009	2/2/2009	0	0	0	0	0
1/20/2009	1/26/2009	0	0	0	0	0
1/13/2009	1/19/2009	0	0	0	0	0
1/6/2009	1/12/2009	18.37	0	0	0	0
12/30/2008	1/5/2009	18.37	0	0	0	0
12/23/2008	12/29/2008	18.37	0	0	0	0

12/16/2008	12/22/2008	18.37	0	0	0	0
12/9/2008	12/15/2008	100	97.64	12.76	0	0
12/2/2008	12/8/2008	100	100	90.23	10.74	0
11/25/2008	12/1/2008	100	100	100	10.74	0
11/18/2008	11/24/2008	100	100	100	10.74	0
11/11/2008	11/17/2008	100	100	100	91.35	0
11/4/2008	11/10/2008	100	100	100	91.35	0
10/28/2008	11/3/2008	100	100	100	91.35	0
10/21/2008	10/27/2008	100	100	100	100	0
10/14/2008	10/20/2008	100	100	100	100	0
10/7/2008	10/13/2008	100	100	100	100	0
9/30/2008	10/6/2008	100	100	100	100	0
9/23/2008	9/29/2008	100	100	100	0	0
9/16/2008	9/22/2008	100	100	100	0	0
9/9/2008	9/15/2008	100	100	100	0	0
9/2/2008	9/8/2008	100	100	100	0	0
8/26/2008	9/1/2008	100	100	100	0	0
8/19/2008	8/25/2008	100	100	100	0	0
8/12/2008	8/18/2008	100	100	100	0	0
8/5/2008	8/11/2008	100	100	100	0	0
7/29/2008	8/4/2008	100	100	100	0	0
7/22/2008	7/28/2008	100	100	100	0	0
7/15/2008	7/21/2008	100	100	100	0	0
7/8/2008	7/14/2008	100	100	100	0	0
7/1/2008	7/7/2008	100	100	100	0	0
6/24/2008	6/30/2008	100	100	0	0	0
6/17/2008	6/23/2008	100	100	0	0	0
6/10/2008	6/16/2008	100	89.01	0	0	0
6/3/2008	6/9/2008	100	89.01	0	0	0
5/27/2008	6/2/2008	100	40.75	0	0	0
5/20/2008	5/26/2008	100	40.75	0	0	0
5/13/2008	5/19/2008	100	40.75	0	0	0
5/6/2008	5/12/2008	100	40.75	0	0	0
4/29/2008	5/5/2008	100	40.75	0	0	0
4/22/2008	4/28/2008	100	40.75	0	0	0
4/15/2008	4/21/2008	100	40.75	0	0	0
4/8/2008	4/14/2008	100	40.75	0	0	0
4/1/2008	4/7/2008	100	40.75	0	0	0
3/25/2008	3/31/2008	100	40.75	0	0	0
3/18/2008	3/24/2008	100	40.75	0	0	0
3/11/2008	3/17/2008	100	40.75	0	0	0

3/4/2008	3/10/2008	100	100	53.3	0	0
2/26/2008	3/3/2008	100	100	53.3	0	0
2/19/2008	2/25/2008	100	100	100	0	0
2/12/2008	2/18/2008	100	100	100	0	0
2/5/2008	2/11/2008	100	100	100	0	0
1/29/2008	2/4/2008	100	100	100	0	0
1/22/2008	1/28/2008	100	100	100	0	0
1/15/2008	1/21/2008	100	100	100	80.86	0
1/8/2008	1/14/2008	100	100	100	80.86	0
1/1/2008	1/7/2008	100	100	100	80.86	0
12/25/2007	12/31/2007	100	100	100	100	91.44
12/18/2007	12/24/2007	100	100	100	100	91.44
12/11/2007	12/17/2007	100	100	100	100	91.44
12/4/2007	12/10/2007	100	100	100	98.49	0
11/27/2007	12/3/2007	100	100	100	36.85	0
11/20/2007	11/26/2007	100	100	100	36.85	0
11/13/2007	11/19/2007	100	100	100	36.85	0
11/6/2007	11/12/2007	100	100	82.92	0	0
10/30/2007	11/5/2007	100	100	82.92	0	0
10/23/2007	10/29/2007	100	100	82.92	0	0
10/16/2007	10/22/2007	100	100	82.92	0	0
10/9/2007	10/15/2007	100	90.13	0	0	0
10/2/2007	10/8/2007	100	91.77	0	0	0
9/25/2007	10/1/2007	100	91.77	0	0	0
9/18/2007	9/24/2007	100	91.77	0	0	0
9/11/2007	9/17/2007	100	100	79.65	0	0
9/4/2007	9/10/2007	100	100	44.89	0	0
8/28/2007	9/3/2007	100	100	100	0	0
8/21/2007	8/27/2007	100	100	100	0	0
8/14/2007	8/20/2007	100	100	0	0	0
8/7/2007	8/13/2007	100	100	0	0	0
7/31/2007	8/6/2007	100	23.3	0	0	0
7/24/2007	7/30/2007	100	23.3	0	0	0
7/17/2007	7/23/2007	100	23.3	0	0	0
7/10/2007	7/16/2007	100	23.3	0	0	0
7/3/2007	7/9/2007	100	23.3	0	0	0
6/26/2007	7/2/2007	100	97.81	0	0	0
6/19/2007	6/25/2007	100	97.81	0	0	0
6/12/2007	6/18/2007	100	97.81	0	0	0
6/5/2007	6/11/2007	100	97.81	0	0	0
5/29/2007	6/4/2007	100	100	89.91	0	0

5/22/2007	5/28/2007	100	100	89.9	0	0
5/15/2007	5/21/2007	100	100	0	0	0
5/8/2007	5/14/2007	100	100	0	0	0
5/1/2007	5/7/2007	100	100	0	0	0
4/24/2007	4/30/2007	100	100	0	0	0
4/17/2007	4/23/2007	100	0	0	0	0
4/10/2007	4/16/2007	100	0	0	0	0
4/3/2007	4/9/2007	100	0	0	0	0
3/27/2007	4/2/2007	100	0	0	0	0
3/20/2007	3/26/2007	100	0	0	0	0
3/13/2007	3/19/2007	0	0	0	0	0
3/6/2007	3/12/2007	0	0	0	0	0
2/27/2007	3/5/2007	100	0	0	0	0
2/20/2007	2/26/2007	100	0	0	0	0
2/13/2007	2/19/2007	0	0	0	0	0
2/6/2007	2/12/2007	0	0	0	0	0
1/30/2007	2/5/2007	0	0	0	0	0
1/23/2007	1/29/2007	0	0	0	0	0
1/16/2007	1/22/2007	0	0	0	0	0
1/9/2007	1/15/2007	100	0	0	0	0
1/2/2007	1/8/2007	100	0	0	0	0
12/26/2006	1/1/2007	100	0	0	0	0
12/19/2006	12/25/2006	100	0	0	0	0
12/12/2006	12/18/2006	100	0	0	0	0
12/5/2006	12/11/2006	0	0	0	0	0
11/28/2006	12/4/2006	0	0	0	0	0
11/21/2006	11/27/2006	100	0	0	0	0
11/14/2006	11/20/2006	100	100	0	0	0
11/7/2006	11/13/2006	100	100	0	0	0
10/31/2006	11/6/2006	100	100	0	0	0
10/24/2006	10/30/2006	100	100	0	0	0
10/17/2006	10/23/2006	100	100	0	0	0
10/10/2006	10/16/2006	100	100	0	0	0
10/3/2006	10/9/2006	100	100	0	0	0
9/26/2006	10/2/2006	100	41.8	0	0	0
9/19/2006	9/25/2006	100	41.8	0	0	0
9/12/2006	9/18/2006	100	100	0	0	0
9/5/2006	9/11/2006	100	100	0	0	0
8/29/2006	9/4/2006	100	100	0	0	0
8/22/2006	8/28/2006	100	100	4.7	0	0
8/15/2006	8/21/2006	100	100	0	0	0

8/8/2006	8/14/2006	100	100	0	0	0
8/1/2006	8/7/2006	100	100	0	0	0
7/25/2006	7/31/2006	100	100	0	0	0
7/18/2006	7/24/2006	100	78.36	0	0	0
7/11/2006	7/17/2006	100	77.79	0	0	0
7/4/2006	7/10/2006	100	91.38	0	0	0
6/27/2006	7/3/2006	100	90.77	0	0	0
6/20/2006	6/26/2006	100	90.77	0	0	0
6/13/2006	6/19/2006	100	100	0	0	0
6/6/2006	6/12/2006	100	98.35	0	0	0
5/30/2006	6/5/2006	100	0	0	0	0
5/23/2006	5/29/2006	100	0	0	0	0
5/16/2006	5/22/2006	100	0	0	0	0
5/9/2006	5/15/2006	100	0	0	0	0
5/2/2006	5/8/2006	100	0	0	0	0
4/25/2006	5/1/2006	100	0	0	0	0
4/18/2006	4/24/2006	100	0	0	0	0
4/11/2006	4/17/2006	100	0	0	0	0
4/4/2006	4/10/2006	100	0	0	0	0
3/28/2006	4/3/2006	0	0	0	0	0
3/21/2006	3/27/2006	0	0	0	0	0
3/14/2006	3/20/2006	0	0	0	0	0
3/7/2006	3/13/2006	0	0	0	0	0
2/28/2006	3/6/2006	0	0	0	0	0
2/21/2006	2/27/2006	0	0	0	0	0
2/14/2006	2/20/2006	0	0	0	0	0
2/7/2006	2/13/2006	0	0	0	0	0
1/31/2006	2/6/2006	0	0	0	0	0
1/24/2006	1/30/2006	0	0	0	0	0
1/17/2006	1/23/2006	0	0	0	0	0
1/10/2006	1/16/2006	0	0	0	0	0
1/3/2006	1/9/2006	0	0	0	0	0
12/27/2005	1/2/2006	0	0	0	0	0
12/20/2005	12/26/2005	0	0	0	0	0
12/13/2005	12/19/2005	0	0	0	0	0
12/6/2005	12/12/2005	0	0	0	0	0
11/29/2005	12/5/2005	0	0	0	0	0
11/22/2005	11/28/2005	0	0	0	0	0
11/15/2005	11/21/2005	0	0	0	0	0
11/8/2005	11/14/2005	0	0	0	0	0
11/1/2005	11/7/2005	0	0	0	0	0

10/25/2005	10/31/2005	0	0	0	0	0
10/18/2005	10/24/2005	0	0	0	0	0
10/11/2005	10/17/2005	0	0	0	0	0
10/4/2005	10/10/2005	0	0	0	0	0
9/27/2005	10/3/2005	61.96	0	0	0	0
9/20/2005	9/26/2005	0	0	0	0	0
9/13/2005	9/19/2005	0	0	0	0	0
9/6/2005	9/12/2005	0	0	0	0	0
8/30/2005	9/5/2005	0	0	0	0	0
8/23/2005	8/29/2005	0	0	0	0	0
8/16/2005	8/22/2005	0	0	0	0	0
8/9/2005	8/15/2005	0	0	0	0	0
8/2/2005	8/8/2005	0	0	0	0	0
7/26/2005	8/1/2005	0	0	0	0	0
7/19/2005	7/25/2005	0	0	0	0	0
7/12/2005	7/18/2005	0	0	0	0	0
7/5/2005	7/11/2005	0	0	0	0	0
6/28/2005	7/4/2005	0	0	0	0	0
6/21/2005	6/27/2005	0	0	0	0	0
6/14/2005	6/20/2005	0	0	0	0	0
6/7/2005	6/13/2005	0	0	0	0	0
5/31/2005	6/6/2005	0	0	0	0	0
5/24/2005	5/30/2005	0	0	0	0	0
5/17/2005	5/23/2005	0	0	0	0	0
5/10/2005	5/16/2005	0	0	0	0	0
5/3/2005	5/9/2005	0	0	0	0	0
4/26/2005	5/2/2005	0	0	0	0	0
4/19/2005	4/25/2005	0	0	0	0	0
4/12/2005	4/18/2005	0	0	0	0	0
4/5/2005	4/11/2005	0	0	0	0	0
3/29/2005	4/4/2005	0	0	0	0	0
3/22/2005	3/28/2005	0	0	0	0	0
3/15/2005	3/21/2005	0	0	0	0	0
3/8/2005	3/14/2005	0	0	0	0	0
3/1/2005	3/7/2005	0	0	0	0	0
2/22/2005	2/28/2005	0	0	0	0	0
2/15/2005	2/21/2005	0	0	0	0	0
2/8/2005	2/14/2005	0	0	0	0	0
2/1/2005	2/7/2005	0	0	0	0	0
1/25/2005	1/31/2005	0	0	0	0	0
1/18/2005	1/24/2005	0	0	0	0	0

1/11/2005	1/17/2005	0	0	0	0	0
1/4/2005	1/10/2005	0	0	0	0	0
12/28/2004	1/3/2005	0	0	0	0	0
12/21/2004	12/27/2004	0	0	0	0	0
12/14/2004	12/20/2004	0	0	0	0	0
12/7/2004	12/13/2004	0	0	0	0	0
11/30/2004	12/6/2004	0	0	0	0	0
11/23/2004	11/29/2004	0	0	0	0	0
11/16/2004	11/22/2004	0	0	0	0	0
11/9/2004	11/15/2004	0	0	0	0	0
11/2/2004	11/8/2004	0	0	0	0	0
10/26/2004	11/1/2004	0	0	0	0	0
10/19/2004	10/25/2004	0	0	0	0	0
10/12/2004	10/18/2004	0	0	0	0	0
10/5/2004	10/11/2004	0	0	0	0	0
9/28/2004	10/4/2004	0	0	0	0	0
9/21/2004	9/27/2004	0	0	0	0	0
9/14/2004	9/20/2004	0	0	0	0	0
9/7/2004	9/13/2004	0	0	0	0	0
8/31/2004	9/6/2004	47.67	0	0	0	0
8/24/2004	8/30/2004	100	0	0	0	0
8/17/2004	8/23/2004	100	0	0	0	0
8/10/2004	8/16/2004	100	0	0	0	0
8/3/2004	8/9/2004	100	0	0	0	0
7/27/2004	8/2/2004	100	0	0	0	0
7/20/2004	7/26/2004	100	0	0	0	0
7/13/2004	7/19/2004	100	0	0	0	0
7/6/2004	7/12/2004	100	0	0	0	0
6/29/2004	7/5/2004	100	59.11	0	0	0
6/22/2004	6/28/2004	100	100	61.91	0	0
6/15/2004	6/21/2004	100	100	100	0	0
6/8/2004	6/14/2004	100	100	100	0	0
6/1/2004	6/7/2004	100	100	100	0	0
5/25/2004	5/31/2004	100	100	100	0	0
5/18/2004	5/24/2004	100	100	0	0	0
5/11/2004	5/17/2004	100	100	0	0	0
5/4/2004	5/10/2004	100	100	0	0	0
4/27/2004	5/3/2004	100	100	0	0	0
4/20/2004	4/26/2004	100	100	0	0	0
4/13/2004	4/19/2004	100	0	0	0	0
4/6/2004	4/12/2004	100	0	0	0	0

3/30/2004	4/5/2004	100	0	0	0	0
3/23/2004	3/29/2004	100	0	0	0	0
3/16/2004	3/22/2004	0	0	0	0	0
3/9/2004	3/15/2004	0	0	0	0	0
3/2/2004	3/8/2004	0	0	0	0	0
2/24/2004	3/1/2004	0	0	0	0	0
2/17/2004	2/23/2004	0	0	0	0	0
2/10/2004	2/16/2004	0	0	0	0	0
2/3/2004	2/9/2004	0	0	0	0	0
1/27/2004	2/2/2004	0	0	0	0	0
1/20/2004	1/26/2004	0	0	0	0	0
1/13/2004	1/19/2004	0	0	0	0	0
1/6/2004	1/12/2004	0	0	0	0	0
12/30/2003	1/5/2004	0	0	0	0	0
12/23/2003	12/29/2003	0	0	0	0	0
12/16/2003	12/22/2003	0	0	0	0	0
12/9/2003	12/15/2003	0	0	0	0	0
12/2/2003	12/8/2003	0	0	0	0	0
11/25/2003	12/1/2003	0	0	0	0	0
11/18/2003	11/24/2003	0	0	0	0	0
11/11/2003	11/17/2003	0	0	0	0	0
11/4/2003	11/10/2003	0	0	0	0	0
10/28/2003	11/3/2003	0	0	0	0	0
10/21/2003	10/27/2003	0	0	0	0	0
10/14/2003	10/20/2003	0	0	0	0	0
10/7/2003	10/13/2003	0	0	0	0	0
9/30/2003	10/6/2003	0	0	0	0	0
9/23/2003	9/29/2003	0	0	0	0	0
9/16/2003	9/22/2003	0	0	0	0	0
9/9/2003	9/15/2003	0	0	0	0	0
9/2/2003	9/8/2003	0	0	0	0	0
8/26/2003	9/1/2003	0	0	0	0	0
8/19/2003	8/25/2003	0	0	0	0	0
8/12/2003	8/18/2003	0	0	0	0	0
8/5/2003	8/11/2003	0	0	0	0	0
7/29/2003	8/4/2003	0	0	0	0	0
7/22/2003	7/28/2003	0	0	0	0	0
7/15/2003	7/21/2003	0	0	0	0	0
7/8/2003	7/14/2003	0	0	0	0	0
7/1/2003	7/7/2003	0	0	0	0	0
6/24/2003	6/30/2003	0	0	0	0	0

6/17/2003	6/23/2003	0	0	0	0	0
6/10/2003	6/16/2003	0	0	0	0	0
6/3/2003	6/9/2003	0	0	0	0	0
5/27/2003	6/2/2003	0	0	0	0	0
5/20/2003	5/26/2003	0	0	0	0	0
5/13/2003	5/19/2003	0	0	0	0	0
5/6/2003	5/12/2003	0	0	0	0	0
4/29/2003	5/5/2003	0	0	0	0	0
4/22/2003	4/28/2003	0	0	0	0	0
4/15/2003	4/21/2003	0	0	0	0	0
4/8/2003	4/14/2003	0	0	0	0	0
4/1/2003	4/7/2003	0	0	0	0	0
3/25/2003	3/31/2003	0	0	0	0	0
3/18/2003	3/24/2003	97.43	0	0	0	0
3/11/2003	3/17/2003	95.57	0	0	0	0
3/4/2003	3/10/2003	65.24	0	0	0	0
2/25/2003	3/3/2003	100	0	0	0	0
2/18/2003	2/24/2003	100	0	0	0	0
2/11/2003	2/17/2003	99.95	0	0	0	0
2/4/2003	2/10/2003	98.8	0	0	0	0
1/28/2003	2/3/2003	4.49	0	0	0	0
1/21/2003	1/27/2003	4.19	0	0	0	0
1/14/2003	1/20/2003	0.06	0	0	0	0
1/7/2003	1/13/2003	5.38	0	0	0	0
12/31/2002	1/6/2003	0	0	0	0	0
12/24/2002	12/30/2002	100	0	0	0	0
12/17/2002	12/23/2002	100	0	0	0	0
12/10/2002	12/16/2002	100	100	0	0	0
12/3/2002	12/9/2002	100	100	0	0	0
11/26/2002	12/2/2002	100	100	0	0	0
11/19/2002	11/25/2002	100	100	0	0	0
11/12/2002	11/18/2002	100	100	0	0	0
11/5/2002	11/11/2002	100	100	100	0	0
10/29/2002	11/4/2002	100	100	100	0	0
10/22/2002	10/28/2002	100	100	100	0	0
10/15/2002	10/21/2002	100	100	100	0	0
10/8/2002	10/14/2002	100	100	100	0	0
10/1/2002	10/7/2002	100	100	100	0	0
9/24/2002	9/30/2002	100	100	100	0	0
9/17/2002	9/23/2002	100	100	100	100	0
9/10/2002	9/16/2002	100	100	100	100	100

9/3/2002	9/9/2002	100	100	100	100	100
8/27/2002	9/2/2002	100	100	100	100	100
8/20/2002	8/26/2002	100	100	100	100	100
8/13/2002	8/19/2002	100	100	100	100	100
8/6/2002	8/12/2002	100	100	100	100	0
7/30/2002	8/5/2002	100	100	100	100	0
7/23/2002	7/29/2002	100	100	100	100	0
7/16/2002	7/22/2002	100	100	100	100	0
7/9/2002	7/15/2002	100	100	100	100	0
7/2/2002	7/8/2002	100	100	100	100	0
6/25/2002	7/1/2002	100	100	100	100	0
6/18/2002	6/24/2002	100	100	100	100	0
6/11/2002	6/17/2002	100	100	100	62.83	0
6/4/2002	6/10/2002	100	100	100	79.4	0
5/28/2002	6/3/2002	100	100	100	99.63	0
5/21/2002	5/27/2002	100	100	100	100	0
5/14/2002	5/20/2002	100	100	100	100	0
5/7/2002	5/13/2002	100	100	100	100	0
4/30/2002	5/6/2002	100	100	100	99.99	0
4/23/2002	4/29/2002	100	100	100	0	0
4/16/2002	4/22/2002	100	100	100	0	0
4/9/2002	4/15/2002	100	100	100	22.92	0
4/2/2002	4/8/2002	100	100	100	20.79	0
3/26/2002	4/1/2002	100	100	100	100	0
3/19/2002	3/25/2002	100	100	100	100	0
3/12/2002	3/18/2002	100	100	100	100	0
3/5/2002	3/11/2002	100	100	100	100	0
2/26/2002	3/4/2002	100	100	100	100	0
2/19/2002	2/25/2002	100	100	100	100	0
2/12/2002	2/18/2002	100	100	100	100	0
2/5/2002	2/11/2002	100	100	100	100	0
1/29/2002	2/4/2002	100	100	100	0	0
1/22/2002	1/28/2002	100	100	100	0	0
1/15/2002	1/21/2002	100	100	100	0	0
1/8/2002	1/14/2002	100	100	100	0	0
1/1/2002	1/7/2002	100	100	100	94.17	0
12/25/2001	12/31/2001	100	100	100	0	0
12/18/2001	12/24/2001	100	100	100	0	0
12/11/2001	12/17/2001	100	100	100	0	0
12/4/2001	12/10/2001	100	100	100	0	0
11/27/2001	12/3/2001	100	100	100	0	0

11/20/2001	11/26/2001	100	100	100	0	0
11/13/2001	11/19/2001	100	100	100	0	0
11/6/2001	11/12/2001	100	100	100	0	0
10/30/2001	11/5/2001	100	100	100	0	0
10/23/2001	10/29/2001	100	100	0	0	0
10/16/2001	10/22/2001	100	100	0	0	0
10/9/2001	10/15/2001	100	99.98	0	0	0
10/2/2001	10/8/2001	100	100	0	0	0
9/25/2001	10/1/2001	100	0	0	0	0
9/18/2001	9/24/2001	100	0	0	0	0
9/11/2001	9/17/2001	21.7	0	0	0	0
9/4/2001	9/10/2001	21.7	0	0	0	0
8/28/2001	9/3/2001	20.89	0	0	0	0
8/21/2001	8/27/2001	0	0	0	0	0
8/14/2001	8/20/2001	0	0	0	0	0
8/7/2001	8/13/2001	36.83	0	0	0	0
7/31/2001	8/6/2001	100	0	0	0	0
7/24/2001	7/30/2001	100	0	0	0	0
7/17/2001	7/23/2001	100	0	0	0	0
7/10/2001	7/16/2001	100	0	0	0	0
7/3/2001	7/9/2001	100	0	0	0	0
6/26/2001	7/2/2001	100	0	0	0	0
6/19/2001	6/25/2001	100	0	0	0	0
6/12/2001	6/18/2001	100	100	100	0	0
6/5/2001	6/11/2001	100	100	100	0	0
5/29/2001	6/4/2001	100	100	100	0	0
5/22/2001	5/28/2001	100	100	100	0	0
5/15/2001	5/21/2001	100	100	100	0	0
5/8/2001	5/14/2001	100	100	0	0	0
5/1/2001	5/7/2001	100	100	0	0	0
4/24/2001	4/30/2001	100	100	0	0	0
4/17/2001	4/23/2001	100	100	0	0	0
4/10/2001	4/16/2001	100	100	0	0	0
4/3/2001	4/9/2001	100	100	0	0	0
3/27/2001	4/2/2001	100	100	0	0	0
3/20/2001	3/26/2001	100	100	0	0	0
3/13/2001	3/19/2001	100	100	0	0	0
3/6/2001	3/12/2001	100	100	0	0	0
2/27/2001	3/5/2001	100	100	0	0	0
2/20/2001	2/26/2001	100	100	0	0	0
2/13/2001	2/19/2001	100	100	0	0	0

2/6/2001	2/12/2001	100	100	0	0	0
1/30/2001	2/5/2001	100	100	0	0	0
1/23/2001	1/29/2001	100	100	0	0	0
1/16/2001	1/22/2001	100	100	0	0	0
1/9/2001	1/15/2001	100	100	0	0	0
1/2/2001	1/8/2001	100	100	19.02	0	0
12/26/2000	1/1/2001	100	100	0	0	0
12/19/2000	12/25/2000	100	100	0	0	0
12/12/2000	12/18/2000	100	100	100	0	0
12/5/2000	12/11/2000	100	100	100	0	0
11/28/2000	12/4/2000	100	100	100	0	0
11/21/2000	11/27/2000	100	100	100	0	0
11/14/2000	11/20/2000	100	100	100	0	0
11/7/2000	11/13/2000	100	100	100	0	0
10/31/2000	11/6/2000	100	100	100	0	0
10/24/2000	10/30/2000	100	100	100	0	0
10/17/2000	10/23/2000	100	100	100	0	0
10/10/2000	10/16/2000	100	100	100	0	0
10/3/2000	10/9/2000	100	100	100	0	0
9/26/2000	10/2/2000	100	100	100	0	0
9/19/2000	9/25/2000	100	100	100	100	0
9/12/2000	9/18/2000	100	100	100	100	0
9/5/2000	9/11/2000	100	100	100	100	0
8/29/2000	9/4/2000	100	100	100	100	0
8/22/2000	8/28/2000	100	100	100	100	0
8/15/2000	8/21/2000	100	100	100	100	0
8/8/2000	8/14/2000	100	100	100	100	0
8/1/2000	8/7/2000	100	100	100	100	100
7/25/2000	7/31/2000	100	100	100	100	100
7/18/2000	7/24/2000	100	100	100	100	100
7/11/2000	7/17/2000	100	100	100	100	100
7/4/2000	7/10/2000	100	100	100	100	100
6/27/2000	7/3/2000	100	100	100	100	100
6/20/2000	6/26/2000	100	100	100	100	100
6/13/2000	6/19/2000	100	100	100	100	100
6/6/2000	6/12/2000	100	100	100	100	0
5/30/2000	6/5/2000	100	100	100	100	0
5/23/2000	5/29/2000	100	100	100	0	0
5/16/2000	5/22/2000	100	100	100	0	0
5/9/2000	5/15/2000	100	100	18.39	0	0
5/2/2000	5/8/2000	100	100	19.39	0	0

4/25/2000	5/1/2000	100	100	19.39	0	0
4/18/2000	4/24/2000	100	100	98.94	0	0
4/11/2000	4/17/2000	100	100	0	0	0
4/4/2000	4/10/2000	100	100	0	0	0
3/28/2000	4/3/2000	100	100	0	0	0
3/21/2000	3/27/2000	100	100	0	0	0
3/14/2000	3/20/2000	100	100	0	0	0
3/7/2000	3/13/2000	100	100	0	0	0
2/29/2000	3/6/2000	100	100	0	0	0
2/22/2000	2/28/2000	100	100	0	0	0
2/15/2000	2/21/2000	100	100	0	0	0
2/8/2000	2/14/2000	100	100	0	0	0
2/1/2000	2/7/2000	100	100	0	0	0
1/25/2000	1/31/2000	100	100	0	0	0
1/18/2000	1/24/2000	100	100	0	0	0
1/11/2000	1/17/2000	100	100	0	0	0
1/4/2000	1/10/2000	100	100	0.42	0	0

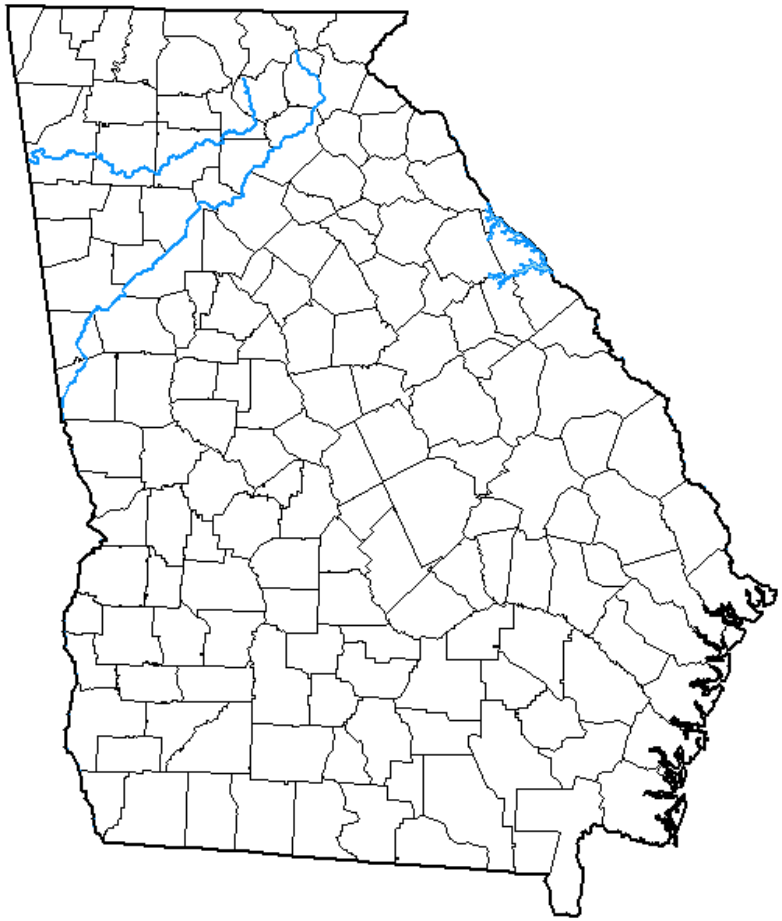
U.S. Drought Monitor

Georgia

September 6, 2022

(Released Thursday, Sep. 8, 2022)

Valid 8 a.m. EDT



Intensity:

- None
- 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. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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WILDFIRE

A wildfire is any uncontrolled fire occurring on undeveloped land that needs fire suppression. The potential for wildfire is influenced by three factors: the presence of fuel, the area's topography and air mass. There are three different classes of wildland fires. A surface fire is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire is usually started by lightning and burns on or below the forest floor. Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. Wildfires are usually signaled by dense smoke that fills the area for miles around. Wildfires by lightning have a very strong probability of occurring during drought conditions. Drought conditions make natural fuels (grass, brush, trees, dead vegetation) more fire-prone.

Glascock County consists of 144 square miles. The county is comprised of 92,540 acres, 96% of which a dedicated to agriculture and forestry. Given the right weather conditions and variables, wildfire due to natural causes creates a potential threat to the lives and property of residents in the planning area. According to Georgia Forestry data, from 1957 to 2021, there have been 925 fire events burning a total of 4,250 acres. Based on a 20-year hazard cycle there is a 1,520% chance of an annual wildfire due to a natural hazard event.

According to FEMA Worksheet #3a, there are 8,841 structures/properties with a population of 2,984 with a value of slightly more than $276 million worth of assets countywide

ACRES BURNED

YEAR	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD
1957	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	414.78	1.34	5.92	0	263.06	130.63	2.89	10.94	0
1966	122.31	0	0.69	0	35.95	20.6	19.54	45.53	0
1967	100.19	0	0.14	0	21.91	31.09	47.05	0	0
1968	176.19	0	5.18	0	144.27	15.71	11.03	0	0
1969	60.77	0.13	4.63	0	27.63	25.4	1.04	1.94	0
1970	209.14	0	59.89	0	3.44	47.84	71.17	26.8	0
1971	66.39	0.13	16.13	0	3.7	34.36	12.07	0	0
1972	7.13	0	6.09	0	0	0.22	0	0.82	0
1973	31.33	0	3.33	0	0.31	6.28	21.41	0	0
1974	115.37	0	3.05	0	6.99	89.24	12.44	3.65	0
1975	18.28	0	0	0	0	18.28	0	0	0
1976	43.79	0	14.53	0	0.54	27.48	0	0	0
1977	66.87	1.02	6.64	0	24.29	8	24.4	0	2.52
1978	53.1	11.34	1.4	0	0.25	40.04	0.07	0	0
1979	87.62	0.4	0	0	33.96	53.26	0	0	0
1980	36.36	2.9	1.64	0	2.04	29.78	0	0	0
1981	96.25	1.38	18.09	0	2.19	12.66	50.3	0	2.32
1982	126.3	20.51	2	0	85.36	14.13	4.3	0	0
1983	15.49	0.05	0	0	0	11.38	2.07	0	0
1984	43.45	0	0	0	19.27	20.52	2.92	0	0.74
1985	67.74	0	0	7.27	0.3	7.33	48.13	0	4.71
1986	76.03	69.59	0	0	0.03	2.42	2.04	0	1.95
1987	24.81	0	2.05	1.68	3.13	14.92	3.03	0	0
1988	25.55	5.15	0.7	0	6.62	11.99	0.07	0	1.02
1989	109.05	0	1.24	0.15	38.3	9.6	10.62	0	49.14
1990	53.8	25.94	5.85	0	0	18.98	1.13	0	0
1991	14.35	0.29	4.15	0	0.53	2.87	6.51	0	0
1992	46.74	0.07	2.65	0	0.13	43.89	0	0	0
1993	113.06	58.55	32.04	0	0.36	17.22	4.89	0	0
1994	13.16	2.16	0.9	0	10.05	0.05	0	0	0
1995	44.94	4.17	5.46	0	0.23	34.97	0	0	0

1996	39.33	0	1.73	0	0.59	9.54	27.47	0	0
1997	12.63	2.16	5.3	0	0	4.71	0.38	0	0
1998	2.31	0	0.63	0	0	0.69	0	0	0
1999	2.11	0	0	0	0	0	2.11	0	0
1987	24.81	0	2.05	1.68	0.8	14.92	5.36	0	0
1988	25.55	5.15	0.7	0	6.62	11.99	0.07	0	1.02
1989	109.05	0	1.24	0.15	38.3	9.6	10.62	0	49.14
1990	53.8	25.94	5.85	0	0	18.98	1.13	0	0
1991	14.35	0.29	4.15	0	0.53	2.87	6.51	0	0
1992	46.74	0.07	2.65	0	0.13	43.89	0	0	0
1993	113.06	58.55	32.04	0	0.36	17.22	4.89	0	0
1994	13.16	2.16	0.9	0	10.05	0.05	0	0	0
1995	44.94	4.17	5.46	0	0.23	34.97	0	0	0
1996	39.33	0	1.73	0	0.59	9.54	27.47	0	0
1997	12.63	2.16	5.3	0	0	4.71	0.38	0	0
1998	2.31	0	0.63	0	0	0.69	0	0	0
1999	2.11	0	0	0	0	0	2.11	0	0
2000	14.34	0.62	5.04	0	4.54	4	0	0	0.14
2001	44.01	0.13	10.01	0	27.3	0	0	0	0
2002	87.47	58.1	21.13	0	0	2.52	0	0	0
2003	22.85	0	2.43	0	6.4	9.02	0	0	0
2004	133.71	1.89	0.26	0	0	111.56	0.05	0	0
2005	9.27	3.84	0.5	0	0	0.91	0.02	0	0
2006	50.63	41.78	2.4	1.59	0	4.83	0	0	0
2007	83.88	9.31	1.89	0	0	29.06	43.33	0	0
2008	42.36	1.89	0.56	0.3	0	30.11	5.64	0	0
2009	52.75	0	14.86	0	0	4.33	0	0	0
2010	8.48	0	0.41	0	0	7.86	0.13	0	0
2011	110.32	0	2.49	0	0.1	104.66	0	0	0.74
2012	42.15	22.35	0.1	0.02	0	11.04	0	0	0
2013	144.67	0	0.33	0	0	144.11	0	0	0
2014	44.42	0.1	0	0	0.96	13.33	0.17	0	0.45
2015	38.43	4.6	0	13.3	0	0.17	0	0	0
2016	39.88	0.55	15.58	0	0	4	0	0	0
2017	70.08	0	3.4	0	0	18.32	22.23	0	0
2018	41.78	1.5	0	0	5.08	33.5	0	0	0
2019	55.97	4.4	0	0	0	48.87	0	0	0
2020	20.08	0	0	7.2	0	0	0	0	0
2021	54.08	0	0	0	0.25	36.61	0	0	0
2022	0	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0	0

2024	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0	0

Facility Wildfire Hazard Selected Only All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year
Edge Hill city	Edgehill City Hall	4	200000	2020	100	50000	2020
Edge Hill city	Edgehill Public Water System	3	700000	2020	80		
Edge Hill city	Edgehill Fire Department	4	125000	2020	1200	350000	2020
Gibson city	Gibson City Hall	3	249640	2020	1458	150000	2020
Gibson city	Gibson Health and Rehab	3	850000	2020	32492	350000	2020
Gibson city	Gibson Water System	2	2800000	2020	100	50000	2020
Gibson city	Gibson WPCP	3	1500000	2020	100	10000	2020
Glascock County	Glascock County Consolidated School	3	5000000	2020	5000	800000	2020
Glascock County	Glascock County Courthouse	3	1500960	2020	2500	250000	2020
Glascock County	Tri-County Health System	3	668800	2020	4000	275000	2020
Glascock County	Glascock Cty Fire Dept Station 2	1	150000	2020	1200	100000	2020
Glascock County	Fellowship Baptist Church	0	764100	2020	2400	100000	2020
Glascock County	County Ext. office-Emergency Operations Center	3	250000	2020	1254	150000	2020

Facility Wildfire Hazard Selected Only All Hazard Scores

Glascock County	Glascock County Gym _Emergency Shelter	4	1555000	2020	5000	350000	2020
Glascock County	United Methodist Church	3	1353900	2020	5400	100000	2020
Glascock County	Glascock Headstart	3	900000	2020	1440	150000	2020
Glascock County	Glascock Health Dept.	3	780000	2020	1500	355000	2020
Glascock County	Gibson Substation - Georgia Power	3	1075617	2020	100		
Glascock County	Alltel Cellular Tower	0	250000	2020	500		
Glascock County	Gas Substation	2	2000000	2020	100		
Glascock County	Glascock County Sheriff's Office	3	95000	2020	4600	150000	2020
Glascock County	Electrical SubStation - Jefferson Electric	3	2000000	2020	100		
Glascock County	Gibson-Glascock County Fire Department	3	750000	2020	2000	950000	2020
Mitchell town	Mitchell City Hall	3	150000	2020	2320	25000	2020
Mitchell town	Mitchell Depot Historical	3	650000	2020	1605	50000	2020
Mitchell town	Mitchell Community Center	3	125000	2020	1765	25000	2020
Mitchell town	Mitchell Volunteer Fire Department	3	150000	2020	2320	450000	2020
Mitchell town	Mitchell Elevated Water Tank/Water Distribution	0	2000000	2020	0		

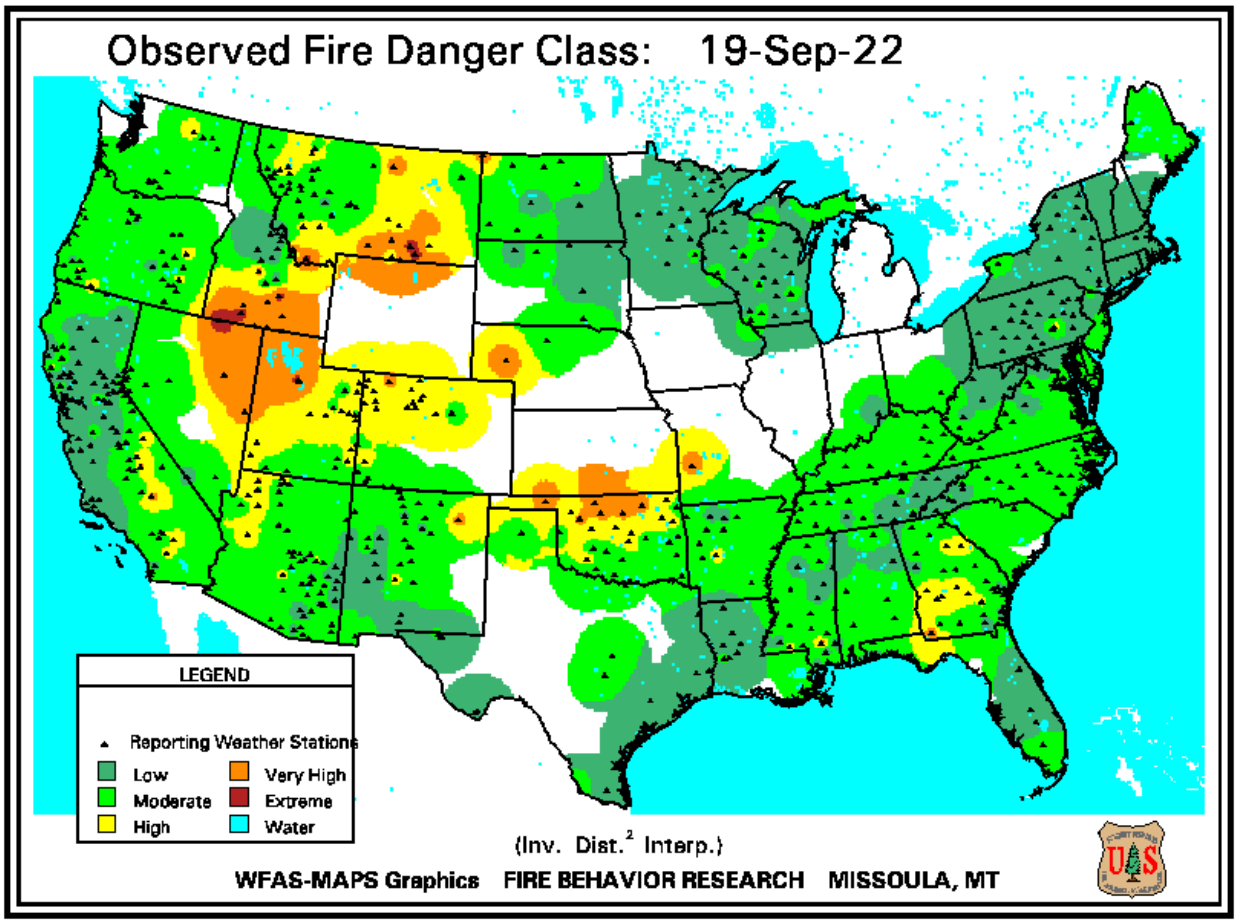
Mitchell town	Mitchell PumpHouse/Well #2	3	185000	2020	100	45000	2020
Mitchell town	Mitchell PumpHouse / Well #3	4	135000	2020	80	35000	2020
Mitchell town	Mitchell Pump House / Well #4	3	120530	2020	80	3500	2020
Mitchell town	Mitchell Pump House / Well #5	4	210000	2020	130		
Mitchell town	Old Firehouse	3	150000	2020	200	350000	2020
			$ 29,393,547.00			**$ 5,673,500.00**	

Jurisdiction	Facility type	Risk	Daytime Occupancy	Nighttime Occupancy
Edge Hill city	Government, Government, Government Offices, Government Offices	Important	5	0
Edge Hill city	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline	0	0
Edge Hill city	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Gibson city	Government, Government, City Hall, City Hall	Important	5	0
Gibson city	Medical, Medical, Medical Offices, Medical Offices	Essential, Vulnerable Population	45	0
Gibson city	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0
Gibson city	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0

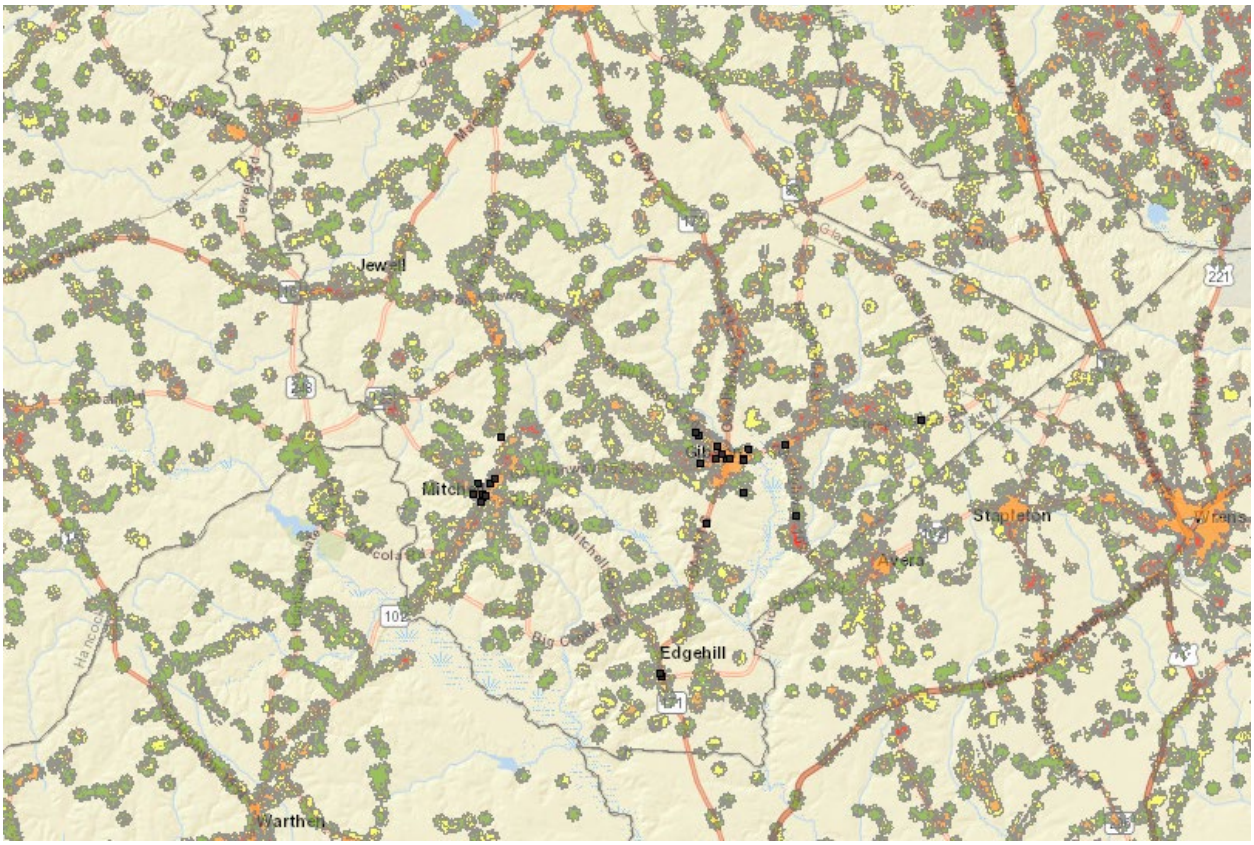
Facility Wildfire Hazard Selected Only All Hazard Scores

Glascock County	Education, Education, K - 12, K - 12	Essential, Vulnerable Population	600	3
Glascock County	Law Enforcement, Law Enforcement, Court House, Court House	Historic Consideration, Important	35	0
Glascock County	Medical, Medical, Private, Private	Essential	35	0
Glascock County	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Glascock County	NGO, NGO, Non-Profit, Non-Profit	Essential	30	0
Glascock County	Government, Government, EMA, EMA	Essential	0	0
Glascock County	Education, Education, K - 12, K - 12	Essential	0	0
Glascock County	NGO, NGO, Non-Profit, Non-Profit	Essential	0	0
Glascock County	Government, Government, K - 12, K - 12	Important, Vulnerable Population	45	0
Glascock County	Medical, Medical, Clinics, Clinics	Essential, Important, Vulnerable Population	55	0
Glascock County	NGO, NGO, Private, Private	Essential, Lifeline	0	0
Glascock County	NGO, NGO, Communications, Communications	Lifeline	0	0
Glascock County	Medical, Medical, Hospital, Hospital	Essential, Lifeline	0	0
Glascock County	Law Enforcement, Law Enforcement, Sheriff, Sheriff	Essential	8	2
Glascock County	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Lifeline	0	0
Glascock County	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	1	0
Mitchell town	Government, Government, City Hall, City Hall	Important	1	0
Mitchell town	Government, Government, Government Offices, Government Offices	Historic Consideration	0	0

Mitchell town	Government, Government, Government Offices, Government Offices	Vulnerable Population	50	0
Mitchell town	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Special Consideration	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Lifeline	0	0
			915	**5**

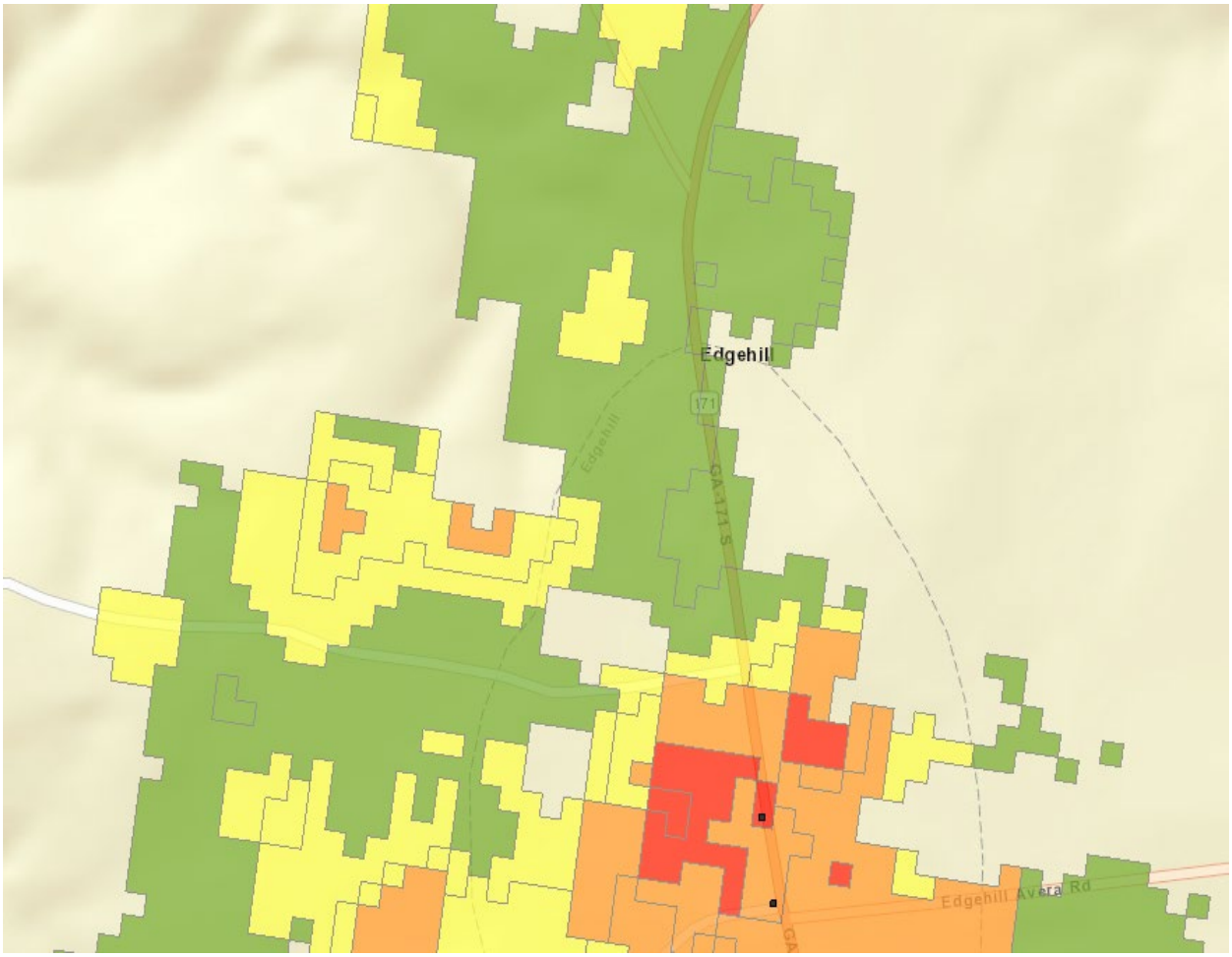

Observed Fire Danger Class: 19-Sep-22
LEGEND
Reporting Weather Stations
Low
Moderate
High
Very High
Extreme
Water
(Inv. Dist.² Interp.)
WFAS-MAPS Graphics FIRE BEHAVIOR RESEARCH MISSOULA, MT

Glascock County Wildfire Map from GMIS



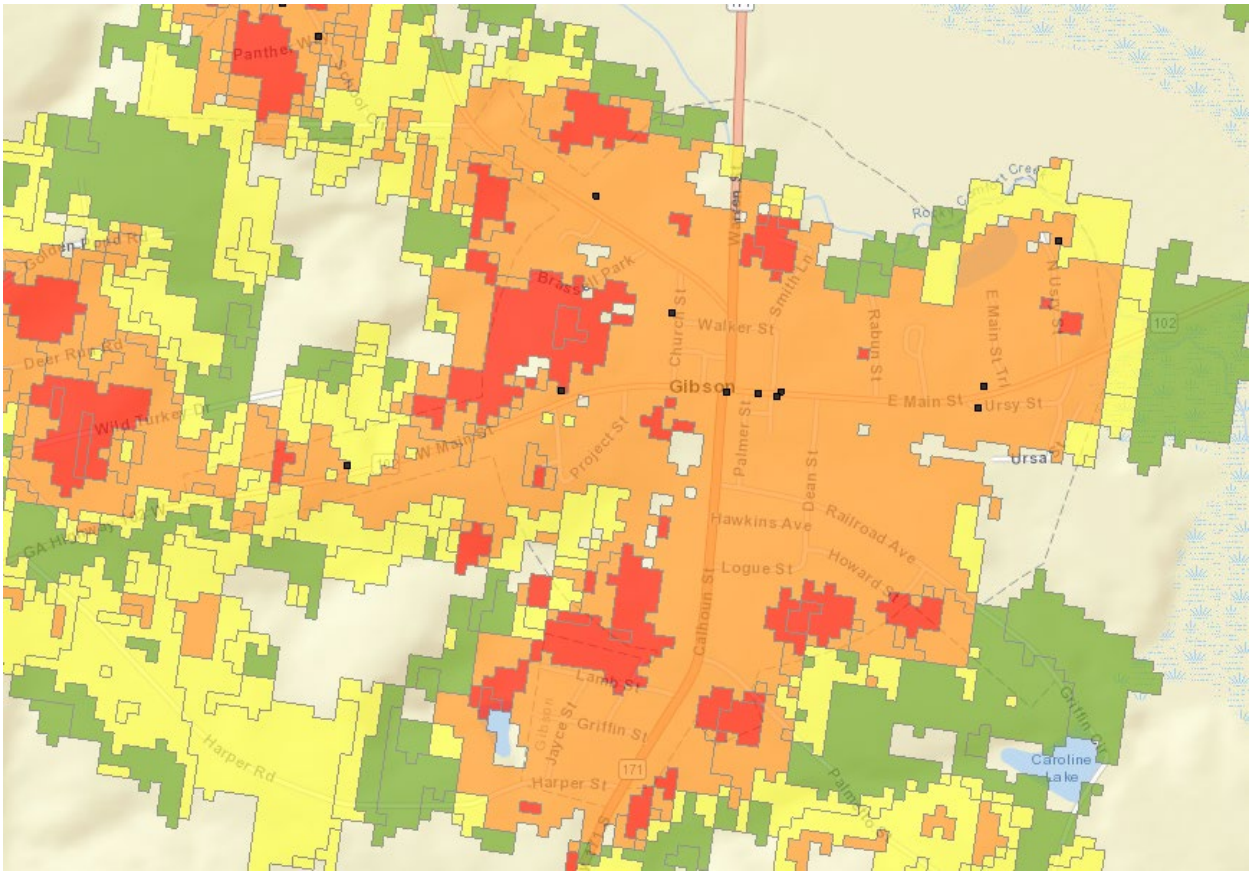
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

Edge Hill Wildfire Map from GMIS



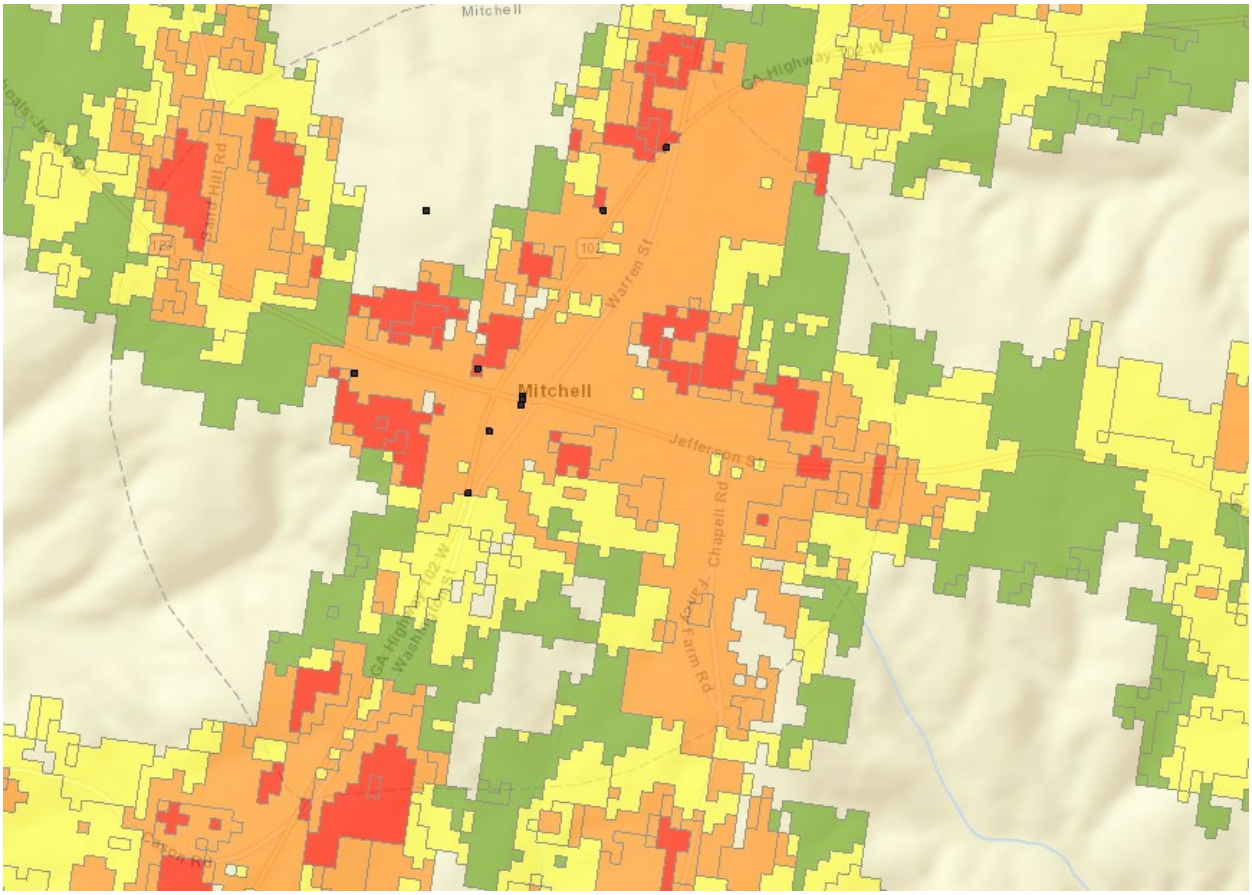
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

Gibson Wildfire Map from GMIS



Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

Mitchel Wildfire Map from GMIS



Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

TORNADO

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm or the result of a hurricane and is produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. Tornados are among the most unpredictable and destructive of weather phenomena and can strike at any time of the year if the essential conditions are present. The damage from a tornado is a result of the high wind velocity and wind-blown debris.

The positions of the subtropical and polar jet streams often are conducive to the formation of storms in the Gulf region. The table below shows the original Fujita Scale and the Enhanced Fujita Scale (in use since 2007) to rate the intensity of a tornado by examining the damage caused by the tornado after it has passed over a manmade structure.

Tornados do not touch down frequently; however, the unpredictability and the potential for excessive damage caused by tornados makes it imperative that mitigation measures identified in this plan receive full consideration. Based on historical data, there have been nine reported tornados in the planning area. There have not been any reports of tornadoes since the last update. Since 1950, there has been approximately $281,000 in property damage and crop damage as well as 12 deaths from tornadoes. Tornados strike randomly, making the task of calculating a recurrence interval extremely difficult. There is a 7% annual chance of a tornado event at for Glascock County as a whole.

Location	Date	Event	Deaths	Injuries	Property Damage	Crop Damage	Description
Unincorporated Glascock County	03/20/1875	Tornado	12				None Reported
Unincorporated Glascock County	2/18/2009	Tornado	0	0	25000	0	A damage survey conducted by the National Weather Service Forecast Office in Peachtree City, Georgia confirmed that the EF3 tornado that first touched down in Hancock county, causing extensive damage in the Hickory Grove Community as well as killing one and injuring three, continued across extreme southern Warren and into extreme northwest Glascock counties before lifting. The tornado remained a weaker EF1 with a maximum path width of 100 yards as it crossed from Warren into Glascock county. The tornado traveled a total distance of nearly 11 miles, but less than two miles within Glascock county. Within Glascock county, the tornado tracked across a very rural area. Thus, damage was confined to around a hundred downed trees.
GIBSON	4/10/2009	Tornado	0	0	4000	0	A damage survey conducted by the National Weather Service Forecast Office in Peachtree City, Georgia confirmed that a brief EF0 tornado had touched down just southeast of the city of Gibson and traveled approximately 1000 yards or about 0.6 mile on an east-southeastward track. This tornado was spawned by the same supercell thunderstorm that spawned the earlier EF3 tornado in eastern Hancock county. The tornado was determined to have a maximum path width of 150 yards with maximum winds of 100 mph. A number of large pine trees were uprooted or snapped along the path of the tornado. However, no structural damage was noted as a result of this tornado.
Unincorporated Glascock County	4/10/2009	Tornado	0	0	2000	0	A damage survey conducted by the National Weather Service Forecast Office in Peachtree

							City confirmed that yet a second tornado touched down in Glascock county during the evening of April 10th. This tornado was determined to be an EF1 and touched down in the far eastern part of the county, approximately 4.5 miles east-northeast of Gibson. The tornado continued on an almost due eastward path for five miles into northern Jefferson county, lifting approximately three miles northeast of Stapleton. The maximum path width was determined to be 200 yards with maximum winds estimated at 110 mph. Damage within Glascock county from this tornado was confined to several downed trees.
Unincorporated Glascock County	3/5/2013	Tornado	0	0	250000	0	A National Weather Service Storm Survey determined that an EF-1 tornado touched down northwest of Gibson. Numerous trees were snapped and uprooted along the 1.5 mile path. As the tornado crossed Georgia State Highway 171, it ripped off 20 percent of the metal roof from a home residence, tossed a camper trailer 50 feet, and knocked two mobile homes off their foundations. The occupant of one home had to be rescued. The worst damage occurred near the intersection of Georgia Highway 171 and Magnolia Church Road where 60 percent of the Magnolia Baptist Church roof was ripped off, and the brick-walled fellowship hall on the west end of the church was completely destroyed. Numerous tombstones and other structures at the adjoining cemetery near the church were also damaged.|[03/05/13: Tornado #1, County #1-1, EF1, Glascock, 2013:003].
						281000	

TROPICAL STORMS

Tropical storms begin as tropical depressions over warm oceanic water, then develop into tropical cyclones. A tropical cyclone life span can last from a few hours to close to three weeks. Most tropical cyclones last approximately five to ten days. If the winds are under or up to 39 mph, it is a tropical depression. If winds speeds are between 39 to 73 mph, it is considered a tropical storm. Any storm with over 74 mph wind speed is called a hurricane. As a rule, hurricanes occur in the western Atlantic Ocean when warm, humid conditions are prevailing. Hurricanes are usually accompanied by excessive rain, thunder and lightning. When hurricanes make landfall, they typically slow down. Unfortunately, at that time, another danger often appears – tornados. A storm surge, which is an abnormal rise in water levels in a coastal area, usually occurs with tropical storms.

Glascock County is not likely to experience a hurricane or storm surges. In the last 70 years there have been 24 tropical storms that have affected the county with heavy rainfall and strong wind. Although there has been no property or crop damage, roads have been flooded and downed trees have caused widespread power outages across the county. Based on a 20-year hazard frequency cycle, there is a 90% chance of an annual tropical storm event for all jurisdictions.

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage	Description
GLASCOCK	6/2/1959	Tropical Storm Arlene	0	0	0	0	
GLASCOCK	8/28/1964	Hurricne Cleo	0	0	$ 1,000.00	0	
GLASCOCK	6/8/1968	Tropical Storm Abby	0	0	$ -	0	
GLASCOCK	6/19/1972	Hurricane Agnes	0	0	$ -	0	
GLASCOCK	10/12/1990	Tropical Storm March	0	0	$ -	0	
GLASCOCK	9/23/2000	Tropical Storm Helene	0	0	$ -	0	
GLASCOCK	9/14/2002	Tropical Storm Allison	0	0	$ -	0	
GLASCOCK	9/14/2002	Tropical Storm Hannah	0	0	$ -	0	
GLASCOCK	7/1/2003	Tropical Storm Bill	0	0	$ -	0	
GLASCOCK	9/6/2004	Hurricane Francis	0	0	$ -	0	
GLASCOCK	9/16/2004	Hurricane Ivan	0	0	$ -	0	
GLASCOCK	9/26/2004	Tropical Storm Jeanne	0	0	$ -	0	

GLASCOCK	6/12/2005	Tropical Storm Arlene	0	0	$ -	0	
GLASCOCK	7/10/2005	Hurricane Dennis	0	0	$ -	0	
GLASCOCK	8/29/2005	Hurricane Katrina	0	0	$ -	0	
GLASCOCK	10/5/2005	Tropical Storm Tammy	0	0	$ -	0	
GLASCOCK	8/21/2008	Tropical Storm	0	0	$ -	0	
GLASCOCK	11/10/2009	Hurricane Ida	0	0	$ -	0	Twelve to 18-hour rainfall totals of 4-5 inches across north Georgia aggravated totally saturated soils from an on of the wettest September and October periods on record to result in widespread creek, stream, and river flooding. The generally light to moderate intensity of the rainfall and its persistence over a long period of time resulted in limited flash flooding. Damages from Hurricane Ida to Georgia were confined to minor flooding, mostly adjacent to rivers, creeks, and streams. Some locations experienced flooding subsequently for several days. Only 15 to 20 mph winds with some gusts to 25 mph were observed with the remnants of Ida as the tightly concentric wind field weakened rapidly with the inland movement. In addition, no tornadoes were observed with the remnants of Ida as it tracked across the region. Total damages from Ida within the Peachtree City, Georgia forecast area were well less than $100,000.
GLASCOCK	9/4/2011	Tropical Storm Lee	0	0	$ -	0	The remnants of Tropical Storm Lee impact north and central Georgia.
GLASCOCK	9/11/2017	Hurricane Irma	0	0	$ 75,000.00	0	The media reported many trees and power lines blown down across the county. Many customers were without

							electricity for varying periods of time. No injuries were reported.
GLASCOCK	10/10/2018	Hurricane Michael	0	0	$ -	0	A National Weather Service survey consisting of an analysis of measured wind data, along with reports from Emergency Managers and various other local, state and federal officials, found that tropical storm conditions occurred in the county. There were numerous reports of trees and power lines blown down. Wind speeds were estimated between 30 and 40 mph.
GLASCOCK	7/7/2020	Hurricane Faye	0	0	$ -	0	
GLASCOCK	9/17/2020	Hurricane Sally	0	0	$ -	0	
GLASCOCK	10/29/2020	Tropical Storm Zeta	0	0	$ -	0	Winds gusted between 30 and 40 mph for several hours.
					$ 76,000.00		

SEVERE THUNDERSTORM (Wind, Hail, & Lightning)

The first severe weather event, thunderstorm winds, can cause death, injury, power outages, property damage, disrupt telephone service, and severely affect radio communications which may seriously impair the emergency management capabilities of the affected jurisdictions. Thunderstorm winds arise as a result from convection (with or without lightning), with speeds of at least 50 knots (58 mph), or winds of any speed producing a fatality, injury, or damage. Severe thunderstorms develop powerful updrafts and downdrafts. An updraft of warm, moist air helps to fuel a towering cumulonimbus cloud reaching tens of thousands of feet into the atmosphere. A downdraft of relatively cool, dense air develops as precipitation begins to fall through the cloud. Winds in the downdraft can reach in excess of 100 miles per hour. When the downdraft reaches the ground, it spreads out forming a gust front: the strong wind that kicks up just before the storm hits. As the thunderstorm moves through the area, the full force of the downdraft in a severe thunderstorm can be felt as horizontal, straight-line winds with speeds well over 50 miles per hour. Straight-line winds are often responsible for most of the damage associated with a severe thunderstorm. Damaging straight-line winds occur over a range of scales. At one extreme, a severe single-cell thunderstorm may cause localized damage from a microburst, a severe downdraft extending not more than about two miles across. In contrast, a powerful thunderstorm complex that develops as a squall line can produce damaging winds that carve a path as much as 100 miles wide and 500 miles long.

The second severe weather event is hail. Hailstones are created when strong rising currents of air called updrafts carry water droplets high into the upper reaches of thunderstorms where they freeze. These frozen water droplets fall back toward the earth in downdrafts. In their descent, these frozen droplets bump into and coalesce with unfrozen water droplets and are then carried back up high within the storm where they refreeze into larger frozen drops. This cycle may repeat itself several times until the frozen water droplets become so large and heavy that the updraft can no longer support their weight. Eventually, the frozen water droplets fall back to earth as hailstones. Hail can also be a destructive aspect of severe thunderstorms. Hail causes more monetary loss than any other type of thunderstorm-spawned severe weather in the United States, annually producing about one billion dollars in crop damage. Storms that produce hailstones only the size of a dime can produce dents in the tops of vehicles, damage roofs, break windows and cause significant injury or even death.

The third type of severe weather events is lightning. Lightning is a giant spark of electricity in the atmosphere between clouds, the air, or the ground. In the early stages of development, air acts as an insulator between the positive and negative charges in the cloud and between the cloud and the ground. When the opposite charges build up enough, this insulating capacity of the air breaks down and there is a rapid discharge of electricity that we know as lightning. The flash of lightning temporarily equalizes the charged regions in the atmosphere until the opposite charges build up again.

Location	Date	Event	Magnitude	Deaths	Injuries	Property Damage	Crop Damage	Narrative
Countywide	2/10/1960	Hail		0	0		0	WIND, RAIN, HAIL
Countywide	3/30/1960	Hail		0	0		0	WIND, HAIL, RAIN
Countywide	5/25/1960	Hail		0	0		0	WIND, HAIL, ELECTRICAL
Countywide	5/16/1962	Hail		0	0		0	WIND, HAIL, ELECTRICAL
Countywide	5/28/1962	Hail		0	0		0	WIND AND HAIL
Countywide	7/17/1962	Hail		0	0		0	Wind, hail, rain, and lightning
Countywide	7/24/1962	Hail		0	0		0	Wind, hail, and rain
Countywide	5/27/1963	Hail		0	0		0	Rain, wind, hail and electrical
Countywide	5/21/1964	Hail		0	0		0	WIND, RAIN, AND HAIL
Countywide	8/28/1964	Hail		0	0		0	Hurricane Cleo
Countywide	4/12/1965	Hail		0	0		0	Hail and rain
Countywide	11/21/1965	Hail		0	0		0	electrical, wind and hail
Countywide	7/9/1967	Hail		0	0		0	Wind, rain, hail, and lightning
Countywide	6/2/1968	Hail		0	0		0	Wind, hail, and lightning

Countywide	4/23/1971	Hail		0	0		0	WIND, RAIN, HAIL, AND LIGHTNING
MITCHELL	1/2/1996	Hail	0.75	0	0	0	0	

Location	Date	Event	Magnitude	Deaths	Injury	Property Damage	Crop Damage	Even Narrative
COUNTYWIDE	7/4/1966	Thunderstorm Wind	0	0	0	0	0	
COUNTYWIDE	5/15/1976	Thunderstorm Wind	0	0	0	0	0	
COUNTYWIDE	5/21/1990	Thunderstorm Wind	0	0	0	0	0	
COUNTYWIDE	6/29/2000	Thunderstorm Wind		0	0	5000	0	The Jefferson County Emergency Managerment Center reported trees down on power lines throughout Glascock county.
GIBSON	1/19/2001	Thunderstorm Wind		0	0	7000	0	The Glascock county 911 center reported trees down in the northwest part of the county near Five Points. In addition,

								the roof of one home was damaged.
COUNTYWIDE	6/3/2001	Thunderstorm Wind		0	0	5000	0	The Glascock County 911 center reported that trees and power lines were down all across the county.
HADDEN	2/22/2003	Thunderstorm Wind	50	0	0	25000	0	The Glascock county 911 center reported that several trees and power lines were blown down. Some of the trees also landed on and caused damage to several vehicles.
GIBSON	5/17/2003	Thunderstorm Wind	45	0	0	250	0	The Glascock county 911 center reported that one tree was blown down.
GIBSON	10/3/2004	Thunderstorm Wind	61	0	0	25000	0	The Glascock County Emergency Management Director reported that a possible microburst downed numerous trees and power lines between Hobbs Road and County Line

								Road in the extreme northeast part of the county. Two mobile homes were damaged. One of the mobile homes had its roof blown off and another had its porch blown on top of the home. One commercial industry in the area also suffered some roof damage. One witness in the area reported seeing a 4 x 8 foot utility trailer spun around by the strong winds. Another resident estimated the winds at 70 mph and also reported pea-sized hail.
GIBSON	6/20/2006	Thunderstorm Wind	52	0	0	5000	0	A survey conducted by the National Weather Service and the Glascock County Emergency Management Director concluded that an

								apparent thunderstorm microburst or downburst resulted in 10 to 12 large trees being uprooted on the east side of Gibson. In addition, some windows were blown out of the porch of a home in the area. Minor roof damage was also reported to the same home and an adjacent barn and a light pole on the property was twisted off as well. Another 15 to 20 trees were snapped off by high winds across a 2-mile wide area. A power pole was snapped when trees fell on the power line.
GIBSON	3/15/2008	Thunderstorm Wind	50	0	0	2000	0	The public reported that several trees were down along Georgia Highway 171 from Gibson

								north toward the Warren county line.
EDGEHILL	5/20/2008	Thunderstorm Wind	50	0	0	5000	0	The Glascock County 911 Center reported that several trees and power lines were down in the Edge Hill area.
MITCHELL	6/11/2008	Thunderstorm Wind	51	0	0	7000	0	The Glascock County 911 Center reported that several trees were uprooted or snapped in half in the northwest part of the county between Mitchell and the Washington County line. A barn sustained moderate damage on Georgia Highway 102 near Mitchell.
GIBSON	4/10/2009	Thunderstorm Wind	50	0	0	5000	0	The Glascock County Emergency Management Director reported that the roof was blown off the carport of a home. No other damage was

								noted in the area at this time.
MITCHELL	6/15/2010	Thunderstorm Wind	52	0	0	6000	0	The Glascock County 911 Center reported that from two to three dozen trees were down in the northwest part of the county around Mitchell.
AGRICOLA	10/13/2011	Thunderstorm Wind	52	0	0	5000	0	The Glascock County Emergency Management Director reported that up to 15 large trees were down across the county, including one which fell on and took out a power line.
MITCHELL	8/14/2012	Thunderstorm Wind	50	0	0	1500	0	The Glascock County Emergency Manager reported several trees were blown down between Highway 123 and County Line Road Southwest. The trees were mostly rotten.

MITCHELL	3/18/2013	Thunderstorm Wind	60	0	0	110000	0	The Glascock County Emergency Manager reported that numerous trees and power lines were blown down from the Mitchell area to the Edgehill area. Several large pines and at least one power pole were snapped. Two homes were damaged by falling trees and several roads were blocked. A tin roof was ripped off of a mobile home, and the south end of the county was without power.
MITCHELL	8/20/2014	Thunderstorm Wind	50	0	0	500	0	The Glascock County 911 Center Reported a couple of trees down.
BLUME	6/17/2016	Thunderstorm Wind	50	0	0	15000	0	The Glascock County 911 center reported numerous trees and power lines blown

								down across the county.
BLUME	6/12/2021	Thunderstorm Wind	50	0	0	8000	0	The Glascock County Emergency Manager reported multiple trees and power lines blown down along Highway 102.
				0	0	$ 237,250.00		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year
Edge Hill city	Edgehill City Hall	4	200000	2020	100	50000	2020
Edge Hill city	Edgehill Public Water System	3	700000	2020	80		
Edge Hill city	Edgehill Fire Department	4	125000	2020	1200	350000	2020
Gibson city	Gibson City Hall	3	249640	2020	1458	150000	2020
Gibson city	Gibson Health and Rehab	3	850000	2020	32492	350000	2020
Gibson city	Gibson Water System	2	2800000	2020	100	50000	2020
Gibson city	Gibson WPCP	3	1500000	2020	100	10000	2020

Glascock County	Glascock County Consolidated School	3	5000000	2020	5000	800000	2020
Glascock County	Glascock County Courthouse	3	1500960	2020	2500	250000	2020
Glascock County	Tri-County Health System	3	668800	2020	4000	275000	2020
Glascock County	Glascock County Fire Dept Station 2	1	150000	2020	1200	100000	2020
Glascock County	Fellowship Baptist Church	0	764100	2020	2400	100000	2020
Glascock County	County Ext. office-Emergency Operations Center	3	250000	2020	1254	150000	2020
Glascock County	Glascock County Gym _Emergency Shelter	4	1555000	2020	5000	350000	2020
Glascock County	United Methodist Church	3	1353900	2020	5400	100000	2020
Glascock County	Glascock Headstart	3	900000	2020	1440	150000	2020
Glascock County	Glascock Health Dept.	3	780000	2020	1500	355000	2020
Glascock County	Gibson Substation - Georgia Power	3	1075617	2020	100		
Glascock County	Alltel Cellular Tower	0	250000	2020	500		
Glascock County	Gas Substation	2	2000000	2020	100		
Glascock County	Glascock County Sheriff's Office	3	95000	2020	4600	150000	2020
Glascock County	Electrical Substation - Jefferson Electric	3	2000000	2020	100		
Glascock County	Gibson-Glascock County Fire Department	3	750000	2020	2000	950000	2020

Mitchell town	Mitchell City Hall	3	150000	2020	2320	25000	2020
Mitchell town	Mitchell Depot Historical	3	650000	2020	1605	50000	2020
Mitchell town	Mitchell Community Center	3	125000	2020	1765	25000	2020
Mitchell town	Mitchell Volunteer Fire Department	3	150000	2020	2320	450000	2020
Mitchell town	Mitchell Elevated Water Tank/Water Distribution	0	2000000	2020	0		
Mitchell town	Mitchell Pumphouse/Well #2	3	185000	2020	100	45000	2020
Mitchell town	Mitchell Pumphouse / Well #3	4	135000	2020	80	35000	2020
Mitchell town	Mitchell Pump House / Well #4	3	120530	2020	80	3500	2020
Mitchell town	Mitchell Pump House / Well #5	4	210000	2020	130		
Mitchell town	Old Firehouse	3	150000	2020	200	350000	2020
			$ 29,393,547.00			**$ 5,673,500.00**	

Jurisdiction	**Facility type**	**Risk**	**Daytime Occupancy**	**Nighttime Occupancy**
Edge Hill city	Government, Government, Government Offices, Government Offices	Important	5	0

Edge Hill city	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline	0	0
Edge Hill city	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Gibson city	Government, Government, City Hall, City Hall	Important	5	0
Gibson city	Medical, Medical, Medical Offices, Medical Offices	Essential, Vulnerable Population	45	0
Gibson city	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0
Gibson city	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0
Glascock County	Education, Education, K - 12, K - 12	Essential, Vulnerable Population	600	3
Glascock County	Law Enforcement, Law Enforcement, Court House, Court House	Historic Consideration, Important	35	0
Glascock County	Medical, Medical, Private, Private	Essential	35	0
Glascock County	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Glascock County	NGO, NGO, Non-Profit, Non-Profit	Essential	30	0
Glascock County	Government, Government, EMA, EMA	Essential	0	0
Glascock County	Education, Education, K - 12, K - 12	Essential	0	0
Glascock County	NGO, NGO, Non-Profit, Non-Profit	Essential	0	0
Glascock County	Government, Government, K - 12, K - 12	Important, Vulnerable Population	45	0
Glascock County	Medical, Medical, Clinics, Clinics	Essential, Important, Vulnerable Population	55	0
Glascock County	NGO, NGO, Private, Private	Essential, Lifeline	0	0
Glascock County	NGO, NGO, Communications, Communications	Lifeline	0	0

Glascock County	Medical, Medical, Hospital, Hospital	Essential, Lifeline	0	0
Glascock County	Law Enforcement, Law Enforcement, Sheriff, Sheriff	Essential	8	2
Glascock County	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Lifeline	0	0
Glascock County	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	1	0
Mitchell town	Government, Government, City Hall, City Hall	Important	1	0
Mitchell town	Government, Government, Government Offices, Government Offices	Historic Consideration	0	0
Mitchell town	Government, Government, Government Offices, Government Offices	Vulnerable Population	50	0
Mitchell town	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Special Consideration	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline	0	0
Mitchell town	Government, Government, Water/Sewer, Water/Sewer	Lifeline	0	0
			915	**5**

WINTER STORMS

Southeastern snow or ice storms often form when an area of low pressure moves eastward across the northern Gulf of Mexico. To produce a significant winter storm in the south, not only must temperatures be cold enough, but there must also be enough moisture in the atmosphere to produce adequate precipitation. A major winter storm can last for several days and be accompanied by ice and freezing rain, high winds, heavy snowfall, and cold temperatures. These conditions can make driving very dangerous, as well as bring down trees and power lines.

There have been 12 winter storm events recorded in the county over the last 71 years with no property damaged reported. Damage from these events totals over $106, 207 thousand. There is a 40% chance of an annual winter storm event.

Winter storms can be more accurately predicted than most other natural hazards, making it possible to give advance warning to communities. The National Weather Service issues winter storm warnings and advisories as these storms make their way south. Given the infrequency of these types of storms, southern communities are still not properly equipped to sustain the damage and destruction caused by severe winter storms. To summarize, there are approximately 8,841 structures/properties in the county totaling nearly $276 million with a population of 2,984. The committee recognized the dangers posed by winter storms and identified specific mitigation actions in Chapter III, Section VI.

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage	Description
GLASCOCK	2/5/1980	Snow	0	0	$ 550.00	0	Snow
GLASCOCK	1/20/1983	Winter Weather	0	0	$ 5,200.00	0	Winter Storm
GLASCOCK	1/15/1994	Winter Weather	0	0	$ 520.00	0	Freeze
GLASCOCK	1/28/2000	Ice Storm	0	0		0	1/4 to 1/2 inch ice accumulation icing roads and bridges, miminal power outages
GLASCOCK	1/2/2002	Heavy Snow	0	0		0	6.5 inches of snow, school closed, trees and limbs were broken, several roads inpassable due ti ice, power outages were minimal.
GLASCOCK	2/28/2003	Ice Storm	0	0		0	Power outages and trees down
GLASCOCK	1/28/2005	Winter Storm	0	0	$ 100,000.00	0	
GLASCOCK	2/12/2010	Heavy Snow	0	0		0	The Glascock County 911 Center reported 5.0 inches of snow.
GLASCOCK	12/25/2010	Winter Weather	0	0		0	The Glascock County 911 Center reported average snowfall of 0.5 inch across the county, with up to 1.0 inch in the far northern part of the county.

GLASCOCK	1/28/2014	Winter Storm	0	0		0	A significant winter storm impacted north and central Georgia on the 28th. Snow and sleet began Tuesday evening, accumulating to widespread amounts of 1 to 3 inches of snow.

GLASCOCK	2/12/2014	Ice Storm	0	0		0	A significant winter storm impacted north and portions of central Georgia on Tuesday the 11th and Wednesday the 12th. For areas south of the Atlanta Metropolitan area and into central Georgia, the event began Wednesday morning the 12th. Rain mixed with and changed over to freezing rain through the morning hours, resulting in catastrophic ice accretions of a half to one inch of ice, with localized higher amounts, especially along the Interstate 20 corridor. Thousands of trees were downed and widespread power outages were reported, with some customers without power for days. The event ended as a round of light snow Wednesday evening.

GLASCOCK	1/17/2018	Winter Weather	0	0		0	The Glascock County Emergency Manager reported around a quarter of an inch of snow accumulation around Gibson.
					$ **106,270.00**		

APPENDIX B

GROWTH

AND

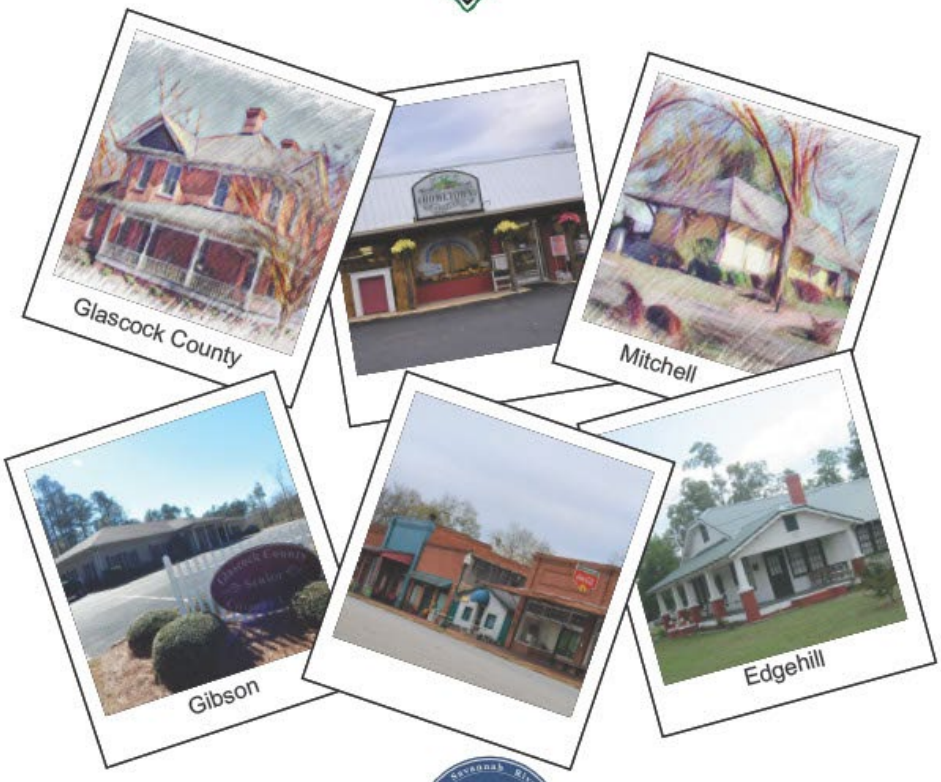
DEVELOPMENT TRENDS

COMMUNITY INFORMATION

Glascock County

COMPREHENSIVE PLAN

2020-2025



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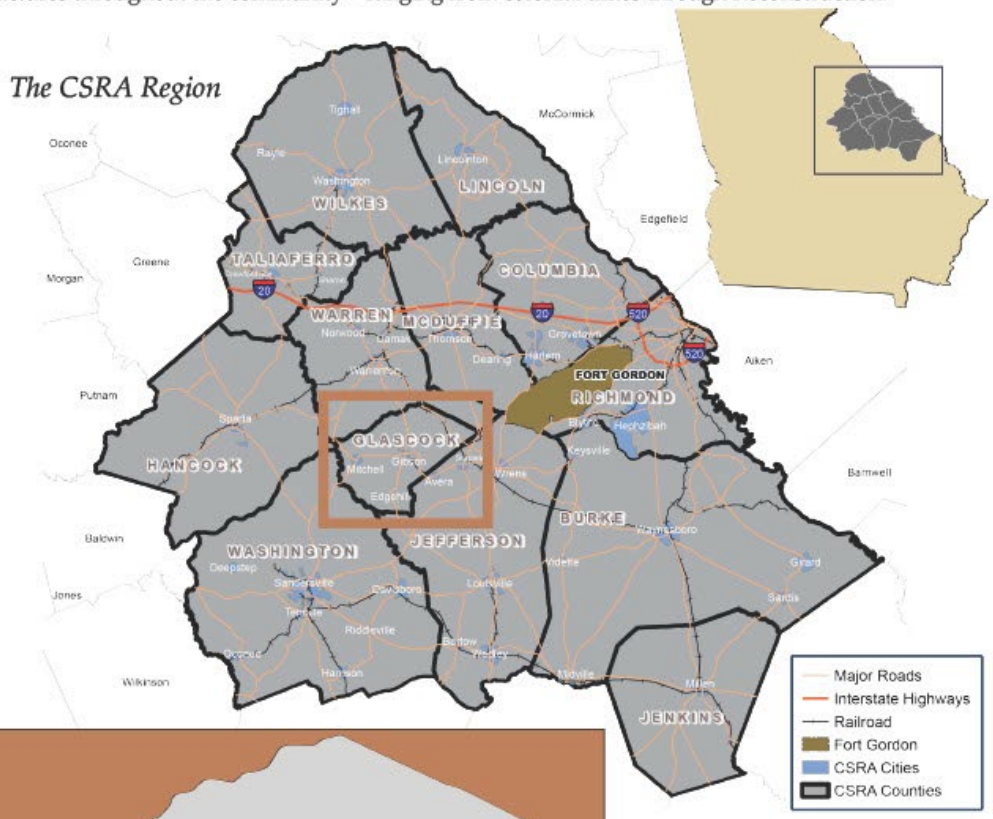
Introduction

The Glascock County Joint Comprehensive Plan 2020-2025 represents the communities' shared long-term goals and individualized short-to-mid-term activities for the future. It is a blueprint for creating the type of community residents want to see and companies want to work with in the coming decades.

In preparing this plan, Glascock County recognizes that there are a number of assets that can be marketed to attract growth and that there also exists the opportunity to develop mechanisms that will shape future development in a manner that does not compromise the community's historic identity or rural quality of life.

The purpose of the Glascock County Comprehensive Plan is to provide the local elected officials of Glascock County with a tool to manage and guide the future growth of the county through the year 2025. The plan also represents Glascock County's participation in the statewide coordinated planning program created by the Georgia Planning Act of 1989. The plan, which meets the "Minimum Standards and Procedures for Local Comprehensive Planning" established by the Act, is intended to provide guidelines that the County and its municipalities can follow when making decisions about providing future public facilities and services. Further, the plan should guide local government decision-making regarding economic development, environmental protection, housing, facility provision and future land use.

Glascock County and the municipalities of Gibson, Mitchell and Edgehill are located in East-Central Georgia, approximately 35 miles west of Augusta and 115 miles east of Atlanta. The county and municipalities are members of the Central Savannah River Area Regional Commission (RC) located in Augusta. Formed in 1870 from parts of Glascock and Jefferson counties as Georgia's 122nd county, Glascock County's traditional importance to the state is evidenced by the significant historic sites and structures throughout the community – ranging from colonial times through Reconstruction.



The Numbers:

Population: 3,027
Median Household Income: $45,273
Number of Housing Units: 1,518
Median Rent: $521

SWOT

As a part of the planning process, the communities held two public hearings, provided information on-line, and conducted a survey. Based on the community survey, stakeholder conversations and available data, the CSRA RC staff compiled a list of Strengths, Weaknesses, Opportunities, and Threats (SWOT). The SWOT results represent a combination of common findings for all jurisdictions and were used in identifying community needs and opportunities.

Strengths

- small town character
- community grocery store
- collaborative working relationships between governments
- low crime
- good school system
- TIA/TSPLOST discretionary funds available for road patching and resurfacing
- land available to develop
- good police and first responders
- good nursing home
- many historic resources
- municipal water systems

Weaknesses

- small tax base
- lack of job opportunities in the county
- recreation areas in need of upgrades
- aging infrastructure (water, sewer, roads)
- blighted properties and overgrown lots
- lack of zoning or property maintenance codes
- lack of industry
- landowners in downtowns unwilling to sell or do property maintenance on vacant structures
- lack of broadband Internet
- Gibson downtown has a problematic intersection for bus and truck traffic
- under-performing senior center (lack of attendees)

Opportunities

- capitalizing on the beauty in the downtowns and rural areas
- promoting county assets online
- working with neighboring counties to share services
- expansion of existing community services and facilities

Threats

- unfunded mandates
- expense of extending broadband services
- retirees moving in with insufficient services to aid them in the future
- other communities are able to attract younger residents away from Glascock

NEEDS & OPPORTUNITIES

Economic Development

Needs	• To update the county website and ensure that the cities have a presence • To improve the appearance of downtown storefronts • Additional employment opportunities • To make sure development benefits Glascock • Additional marketing opportunities for local businesses • Additional infrastructure to assist in attracting industry • More small businesses • A pharmacy and other businesses that would benefit seniors • Additional social places such as dine-in restaurants • Broadband service • More businesses in our downtown storefronts
Opportunities	• Development Authority can assist in attracting industry • The industrial park has available space for industry • Existing sites with access to sewer/water in incorporated areas that can support commercial development • Collaborate at a multi-jurisdictional level to promote tourism throughout the county • Available land for solar development • Participating in the "Go Film Georgia" program and utilizing scenic buildings and landscapes • The regional economy continues to grow • Incorporated areas serve as centers of activity in the county

Housing

Needs	• To assess housing conditions throughout the County • Address absentee property owners who neglect their properties through fines, code enforcement, etc • To generate additional interest from developers • Housing options that are attractive for young families • To address aging/declining housing stock
Opportunities	• A distinct rural character that can attract residents seeking that environment • Infill or redevelopment housing in blighted areas

Community Facilities

Needs	• Expand or improve infrastructure in areas identified for potential industrial development • Upgrade and repair aging infrastructure and drainage • Upgrade recreational facilities • The square would benefit from a redesign and a maintenance plan (Gibson)
Opportunities	• Reuse options for vacant or underutilized public buildings • Expand activities at and visibility of the Senior Center • Improve transit service • Work with neighboring counties to provide enhanced emergency services

Natural & Cultural Resources

Needs	• Historic homes and other structures in need of preservation • Protect water resources from incompatible development
Opportunities	• A beautiful natural landscape • Historic downtowns and cultural attractions (e.g. depot, courthouse, etc)

Land Use

Needs	• To establish land use regulation, including those for private roads and development standards • To adopt codes and building/property maintenance standards
Opportunities	• Joining forces with other communities on code enforcement • Utilize the RC to update maps and create ordinances • Utilize DCA, ACCG and GMA provided model codes/ordinances as baselines

Transportation

Needs	• Road paving and improvements • Safe paths to walk in areas where walking is prevalent, including sidewalks • To review recreational opportunities and facility quality
Opportunities	• Land suitable to expand recreation • Ability to improve access to downtowns from surrounding neighborhoods

Intergovernmental Coordination

Opportunity	• Work with neighboring counties to provide new or expand existing services

Community Goals

One way that the community vision for itself is expressed is through goals and policies. This section of the Plan includes the following:

A List of Community Goals, divided by topic area, that represent the long-term, overarching concepts which should guide day-to-day decision-making about investments, regulations (or the elimination of regulations) or other government or community actions, beyond the time of the current community work program. These goals include broad statements of understanding and intent regarding the communities' long-term growth and development vision.

A List of Supporting Policies that accompany each goal, which serves as ongoing guidance and direction for local officials for making decisions consistent with achieving that goal.

Goals and policies were developed jointly for the county and municipalities and are advisory in nature. Taken together, they express a specific, attainable future for Glascock County, Gibson, Mitchell, and Edgehill.

Broadband Services

Goal	To ensure that all residents, businesses and institutions have access to quality, affordable high speed Internet throughout the county

- Provide residents, businesses and institutions with opportunities to discuss their broadband issues.
- Pursue funding opportunities to expand and/or improve access.
- Pursue the "Broadband Ready" site designation for important community buildings, as defined in the 2018 ACE Act.
- Seek opportunities to partner with neighboring jurisdictions to create or expand high speed Internet infrastructure where feasible.

Economic Development

Goal	To strengthen our economy in the near term and long term through expanded job opportunities, excellent education, and vibrant, attractive downtowns.

- Encourage cleanup and reuse of brownfield sites.
- Focus on downtown commercial and residential development, including adaptive reuse
- Support the local agricultural sector.
- Pursue development at the industrial park and other possible sites.
- More aggressively market Glascock County to potential investors, residents and visitors.
- Identify underserved retail sectors and pursue opportunities.
- Consider new infrastructure investments where they could provide a return on investment.
- Pursue solar and other energy production facilities.
- Use the county's historical and natural landscapes as means to attract tourism, filmmaking and other forms of investment.
- Continue to fund efforts to recruit clean, responsible industry to all areas of Glascock County capitalizing on our infrastructure and multi-modal transportation access.
- Establish facilities and services that will enhance the development of an educated, motivated workforce.
- Promote Glascock County as a day trip destination for people in the surrounding counties and metro areas.
- Actively promote support of locally grown and produced agricultural products.

Community Facilities

Goal	To provide adequate facilities and cost-effective services that meet the needs of residents and improve overall quality of life

- Utilize websites and social media to promote and advertise available programs.
- Examine street networks/sidewalks near popular destinations; create plans to address deficiencies.
- Continue to support and look for ways to improve services to our aging population.
- Work to improve offerings and accessibility to the library.
- Support and engage local non-profit organizations that aim to address child and family welfare. Make efficient use of existing infrastructure and public facilities and prioritize maintenance of them in order to minimize the need for costly new/expanded facilities and services.
- Use planned infrastructure expansion to support development in areas identified (in the comprehensive plan) as suitable for such development.
- Invest in parks and open space to enhance the quality of life for our citizens.
- Support law enforcement and other government agencies with needed equipment and facilities.
- Review the delivery of services with Glascock County and identify ways to eliminate duplicative services.

Natural & Cultural Resources

Goal	To maintain Glascock County's unique natural and cultural heritage through protection and preservation of resources and critical assets.

- Utilize design guidelines to protect the design and character of historic structures while exercising flexibility in their use.
- Promote the use of historic preservation rehabilitation tax credits
- Look for opportunities to link natural, agricultural, and/or cultural sites together to create tourist and resident experiences
- Consider natural and cultural resources impacts, protection, and conservation when making land use or other planning and development decisions.
- Ensure safe and adequate supplies of water through protection of ground and surface water sources.

Land Use

Goal	To maintain a sense of place in the community and protect against incompatible development.

- Decisions about development will enhance our community's character and sense of place.
- Preserve the rural character of our community and provide the opportunity for agricultural and forestry activities to remain a vital part of the community.
- Ensure that we have adequate land use regulation to meet community goals.
- Address problem properties through increased code enforcement.
- We will encourage the development of downtown as a vibrant center of the community in order to improve overall attractiveness and local quality of life.

Housing

Goal	To improve housing conditions and increase housing options

- Support programs that address substandard housing and vacant and dangerous buildings.
- Participate in CHIP, GICH, USDA and CDBG housing rehab programs as feasible.
- Encourage housing in the upper floors of downtown commercial buildings.
- Recruit and target development in areas with existing infrastructure and along existing corridors in order to have opportunity to expand capacity for redevelopment.
- Incorporate open space, natural landscape, and common greenspace in new residential development
- Promote affordable housing options.
- Actively work to increase quality multi-family options.
- Address problem properties through increased code enforcement.

Transportation

Goal	To maintain a quality transportation network and expand transportation options for residents of all ages

- Support development of a trails network throughout the community.
- Improve and add sidewalks and other pedestrian facilities as needed.
- Support the current transit system.
- Focus on the maintenance of existing local roads, and the repair of bridges that have been deemed deficient by GDOT.
- Evaluate the potential for increased pedestrian/bicycle facilities when repaving or widening roads.

Broadband Services

Access to high speed Internet (broadband) is an important part of life today. Broadband enables greater connectivity and expands possibilities for individuals and families to improve their quality of life. From students in the classroom and professionals providing telemedicine to patients with no rural hospital or clinic, to county staff streaming online training and residents using library computers, broadband touches the lives of citizens of all ages and backgrounds.

This section of the plan provides an overview of broadband and the ACE Act reviews the state of local and regional connectivity.


GLASCOCK COUNTY
CONSOLIDATED SCHOOL


OFTC


Jeremy Kelley
Sheriff
OFFICE
706-598-2881

WHAT IS BROADBAND?

Broadband is high speed Internet. The FCC currently defines high speed Internet access as download speeds of at least 25 Mbps and upload speeds of at least 3 Mbps." Mbps is megabits per second. These minimum upload and download speeds are essential to quality of service for end user customers. Broadband includes several high-speed transmission technologies, such as fiber optic, wireless, Digital Subscriber Line (DSL) and coax cable. The goal in many communities may be terrestrial service, but mobile or satellite may be the only option. Glascock County is no exception in many parts of the county.

Different technologies:

- Fiber optic cable - buried underground and transmits data over light through glass or plastic
- Coax Cable - copper-based infrastructure deployed by cable TV and telephone broadband providers; is described as durable and the dominant technology for residential broadband service. It involves wireless devices or systems providing service in fixed locations.
- DSL - copper-based and offered over traditional telephone networks. They are not as rapid as other technologies and may degrade over distance.
- Wireless is fixed where the wireless systems provide service in fixed locations. Mobile wireless consists of cellular networks that deliver service to mobile end-users. Satellite wireless utilizes geostationary satellites that provide service in low-density locations. Lastly, microwave wireless uses mid-to-high frequency signals to deliver service between line-of-sight locations.

THE ACE ACT

In 2018, the Georgia General Assembly passed "Achieving Connectivity Everywhere (ACE) Act" (Senate Bill 402). Provisions in the Act include:

- Requires that each local government in the state incorporate a "Broadband Services Element" into its local comprehensive plan.
- Enables local governments to take advantage of applying for financial incentives (such as grants) for broadband services, if they meet certain criteria.
- Enables the Georgia Department of Transportation to use interstate highway rights-of-way for deployment of broadband services and other emerging communications technologies.
- Enables a political subdivision that has a comprehensive plan that includes the promotion of the deployment of broadband services to the Department of Community Affairs for certification as a broadband ready community.

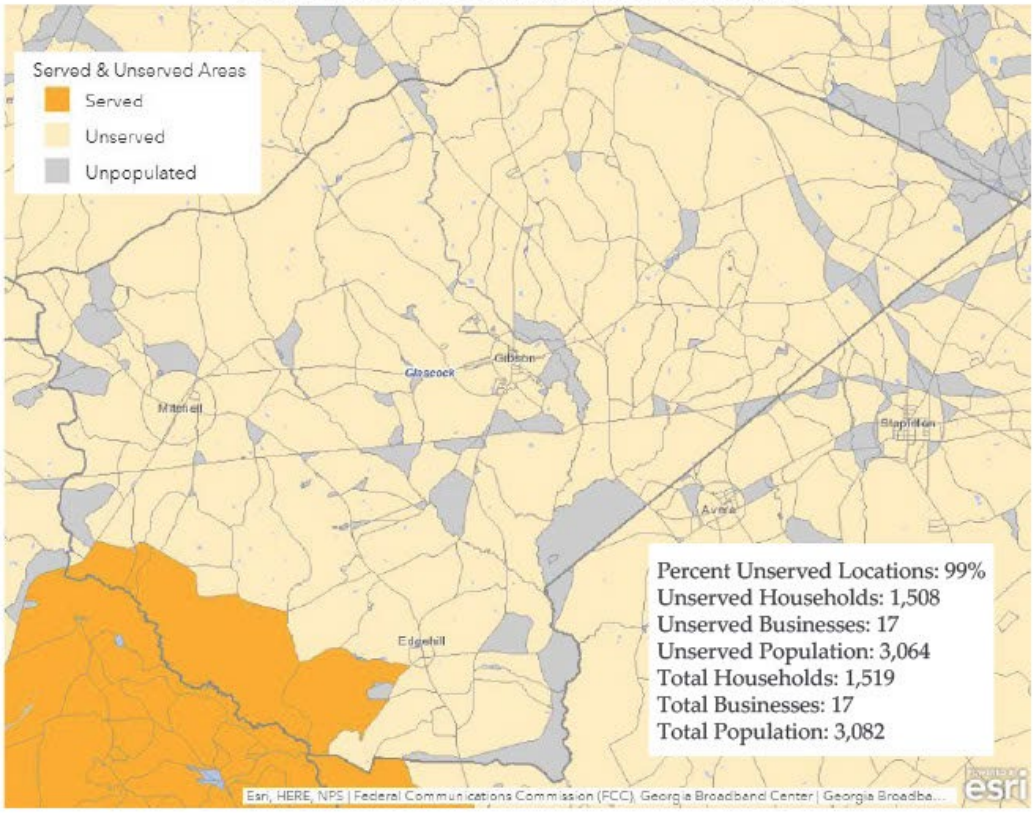
The role of state agencies:

- The OneGeorgia Authority - the OneGeorgia Authority Act will be amended to include broadband services.
- The Georgia Technology Authority - developing a state-wide broadband services deployment plan, they will work with the Georgia Department of Community Affairs and the OneGeorgia Authority to establish grant programs, designation programs, and other programs to promote the deployment of broadband services.
- The Georgia Department of Community Affairs - determine and publish which areas in the state are served and unserved; development and deployment of the Broadband Ready certification program. A served area means a census block that is not designated by DCA as an unserved area. An unserved area means a census block in which broadband services are not available to 20 percent or more of the locations as determined by DCA. The RC staff have assisted the local governments in by transferring locally-provided addresses and locations to DCA. A map will be provided by DCA to determine served and unserved areas of broadband service, based on service information collected for the locally-provided addresses. Currently, only Phase 1 mapping has been made available. The map for Glascock County is on the following page.

LOCAL AND REGIONAL CONNECTIVITY

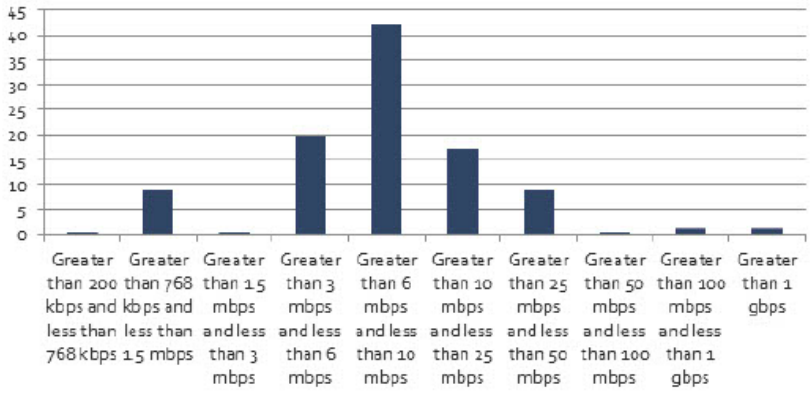
The map below displays the first phase of DCA broadband mapping and is based on the June 2017 Federal Communications Commission (FCC) form 477 data. Glascock County statistics are based on a fixed, terrestrial broadband definition of 25 Mbps down and 3 Mbps up,and where the broadband service is available to at least ONE consumer (residential and business) in a census block. Populated census blocks that did not meet this definition are delineated as 'Unserved' . Population and location data are from the US Census Bureau (2010 Decennial Census) and commercially available business listings (2014) with at least 3 employees and $150,000 annual sales.

Unserved and Served Areas by Block, Glascock County



Explosive growth in wireless and fiber-optic communication has provided many urban areas in Georgia with excellent broadband infrastructure. In many larger cities of the state, there are multiple providers who compete by offering lower prices and faster broadband speeds. However, not all the regions of the state have benefited from fiber-optic growth. Most areas of the CSRA outside of the urbanized parts of Columbia and Augusta-Richmond counties lag in both choice and quality of service. The disparity increases as you move west across the region toward Hancock County. Most of these areas are not served by any land broadband service provider, making slower satellite Internet service the only option. One major challenge facing the rural areas in particular is download speeds (actual versus maximum advertised). Modern business and home-use needs require ever-growing download speeds, and it is not uncommon in many major urban areas for the vast majority of speeds to be between 100 mbps and 1 gigabit. The graph below presents download speeds for the CSRA region. Over one-third of the region's download speeds are greater than 10Mbps (primarily in the urban area), compared to less than 10% in the rural areas. According to the Federal Communications Commission (FCC), a minimum download speed for a household using 2 devices at once for functions like email, browsing, and Internet radio is 3-8 Mbps (Megabits per second). The figures on the next page are FCC listed general guidelines for minimum download speeds.

Percentage of Connections in the CSRA by Download Speed

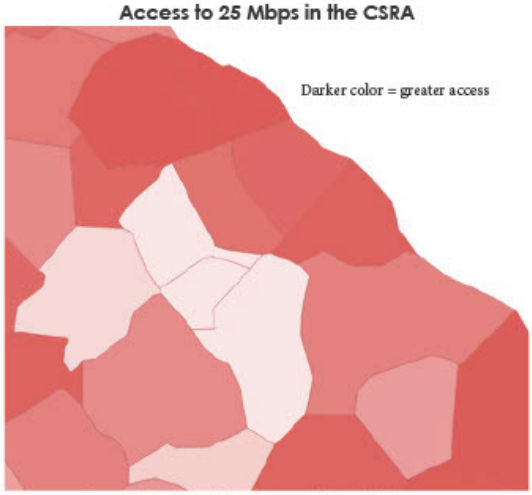


Source: CSRA Digital Economy Plan, 2014

In today's high-tech economy, broadband infrastructure is as vital to business development decisions as water, sewer and transportation systems. Broadband is critical in attracting and cultivating new employers as well as keeping existing businesses competitive. From small businesses to large manufacturers, broadband is a critical element in operating efficiency and access to the global marketplace. The CSRA RC considers broadband the region's top infrastructure priority and has been aggressively pursuing state and federal funding to remedy this deficiency by extending broadband infrastructure to areas of the region that currently lack it. Several communities have indicated an interest in the state's new Broadband Ready designation, and RC staff will be working with cities and counties to update comprehensive plans and undertake other activities to achieve the designation and extend services.

Broadband access varies widely across the state and the CSRA region. Some counties, including Augusta, Columbia, Wilkes, and Lincoln have the greatest access. While Glascock County and several of its neighbors are among those least covered in the state. Affordability also remains a significant challenge. Even with some form of Internet service available, the cost of Internet services is too expensive for many households. Not only do residents lack access, but also the city and county offices lack proper broadband infrastructure. Glascock County has begun conversations with the Washington and Jefferson EMCs to explore solutions. They have examined the possibility of deploying broadband to Glascock County, but that action is currently not financially feasible.

Access to 25 Mbps in the CSRA



Source: Broadband Now; accessed April 2019

FCC Published Minimum Download Speeds Overall

Activity	*Minimum Download Speed (Mbps)*
GENERAL USAGE	
General Browsing and Email	1
Streaming Online Radio	Less than 0.5
VoIP Calls	Less than 0.5
Student	5 - 25
Telecommuting	5 - 25
File Downloading	10
Social Media	1
WATCHING VIDEO	
Streaming Standard Definition Video	3 - 4
Streaming High Definition (HD) Video	5 - 8
Streaming Ultra HD 4K Video	25
VIDEO CONFERENCING	
Standard Personal Video Call (e.g., Skype)	1
HD Personal Video Call (e.g., Skype)	1.5
HD Video Teleconferencing	6
GAMING	
Game Console Connecting to the Internet	3
Online Multiplayer	4

Source: https://www.fcc.gov/reports-research/guides/broadband-speed-guide

FCC Published Minimum Download Speeds for Households

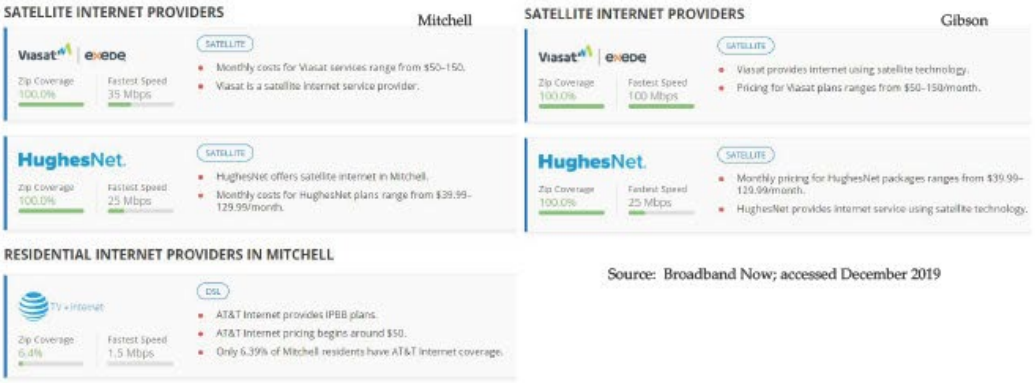
	Light Use (Basic functions: email, browsing, basic video, VoIP, Internet radio)	*Moderate Use* (Basic functions plus one high-demand application: streaming HD video, multi-party video conferencing, online gaming, telecommuting)	*High Use* (Basic functions plus more than one high-demand application running at the same time)
1 user on 1 device	Basic	Basic	Medium
2 users or devices at a time	Basic	Medium	Medium/Advanced
3 users or devices at a time	Medium	Medium	Advanced
4 users or devices at a time	Medium	Advanced	Advanced

Source: https://www.fcc.gov/research-reports/guides/household-broadband-guide

The data below is from Broadband Now, which utilizes available data from the FCC, NTIA, and providers. There are over 200 Internet providers in Georgia, and the average Internet download speed in Georgia is 53.70 Mbps. By contrast, the average download speed in the Gibson zipcode is 26.50 Mbps. This is 50.7% slower than the state average. There are 6 Internet providers in the Gibson zipcode, with 2 of those offering residential service. Of those two providers, both offer satellite service ranging in price from $40 to $150/month.

The average download speed in the Mitchell zipcode is 6.67 Mbps. This is 87.6% slower than the average in Georgia. There are 6 Internet providers in the Mitchell zipcode with 3 of those offering residential service. Of those providers, two offer satellite and one offers DSL. The price ranges are the same as in Gibson, but the fastest speeds are slower (see below).

Internet Service Providers Available to Residential Customers in Mitchell and Gibson Zipcodes



Source: Broadband Now; accessed December 2019

Glascock County's joint action plan for pursuing broadband connectivity across the county includes utilizing the policies identified in the Broadband Services portion of the Community Goals element of this plan, as well as the broadband-related actions identified in the Community Work Program. This includes participation in the East GA Broadband Initiative. This project would establish a fiber line from the Augusta area to the Atlanta area. It would establish a POP (point of presence) building in each county along the route, allowing for future development of broadband in all counties and cities along this route. In 2019, the group of counties worked with Planters Communications in applying for funding that was ultimately unsuccessful. The counties will continue to work together towards finding a joint solution in the future.

LAW ENFORCEMENT

The County Sheriff's Office currently is the sole provider of law enforcement services. The County has a 2500 sq. ft. building with no holding cells. Glascock County prisoners are housed in Thomson (McDuffie County). There is a sheriff, two (2) full-time deputies, two (2) part-time deputies and a secretary. There are six (6) police vehicles for officers. The Internet speed at the sheriff's office is insufficient to provide the highest level of service and online training capability. Two of the possible he to law enforcement services is the U.S. Department of Justice's assistance grant program.

The department has expressed a need for additional vehicles and equipment. Two possible funding sources to financial supplement local dollars are USDA Community Facilities grants and USDOJ assistance programs.

FIRE AND EMERGENCY SERVICES

Gibson, Mitchell, and Edge Hill are served by the Gibson-Glascock County Volunteer Fire Department with 20 volunteers and four (4) stations. The Insurance Services Organization (ISO) rating in the County is 9, the cities it is 6. The county plans to add a small station near the town of Edgehill. Glascock County should consider supplementing local revenue which goes to fund fire protection and emergency services operations with FEMA's Assistance to Firefighters grants.

Enhanced 911 Service (E-911) is available 24-hours a day throughout the county and is operated and coordinated by the Glascock County EMA. CodeRED® is a new County service by which County officials can notify County residents by telephone about emergencies or critical community alerts. The system is capable of sending messages only to people affected or in the case of a widespread emergency like a tornado, to the County's entire population.

McDuffie County Emergency Medical Service is a 24 hour emergency ambulance service that provides emergency pre-hospital advance life support and basic life support transportation to all ages of people within the boundaries of McDuffie and Glascock Counties. McDuffie County EMS is based at University Hospital McDuffie with a substation in the town of Dearing.

WATER, SEWER & SOLID WASTE

Glascock County doesn't provide water or sewer services. However, municipal water is available in incorporated areas. Gibson operates a public water system with a storage and treatment capacity of 175,000 gallons per day (gpd). The City also has three (3) deep wells from which water is supplied. Mitchell operates a public water system with a storage and treatment capacity of 40,000 gpd. Edgehill operates a public water system with two (2) wells that supply the residents with water. Each of the municipalities offers limited service outside of city limits but has a desire and capacity to expand those services. They also make incremental upgrades to aging parts of the system.

The City of Gibson also operates a public sewerage system. The current treatment capacity is 210,000 gpd. Gibson treatment plant has a 120,000 gpd permitted capacity with an average discharge of 90,000 gpd.

Glascock County has closed its landfill and has contracted with Advance Disposal for collecting solid waste at business dumpsters and collections sites in the County.

SCHOOL SYSTEM

Glascock County students attend Glascock County Consolidated School (GCCS). GCCS has Pre-K through 12th grades. As of March 2018, 541 students were enrolled. Also in 2018, 23 students took the SAT. Of those, the mean score was 956 for math and reading/writing. As of October 2018, the 4-year graduation rate was 87.88%.

A partnership with Warren County College and Career Academy and Oconee Fall Line Technical College allows Glascock County students to participate in a dual enrollment program wherein they can receive both high school and college credits. Transportation is provided to the Career Academy. Many classes are offered in a variety of subjects, and students have the additional opportunity to receive two (2) technical certificates when they graduate high school. Glascock County ranks in the top 10 for the percent of students participating in dual enrollment coursework. At the lower level, the county's Gifted/ Honors program allows 8th grade honors students to earn high school credits.

Unlike most of Glascock County, the school system has better than average Internet connection. It's capacity is 100 Mb with 43 access points, each of which is designed to serve 30 wireless devices. This is possible through the GA Department of Education and the Governor's Office of Student Achievement. As technology requirements increase, additional and updated computers and devices will be needed. SPLOST V projects include technology improvements, acquiring school equipment and vehicles, and repair/construction of buildings and facilities.

Like many modern school facilities, its location – driven in part by statewide minimum acreage requirements – results in another automobile dependent community facility. A school access road with sidewalks would be beneficial.

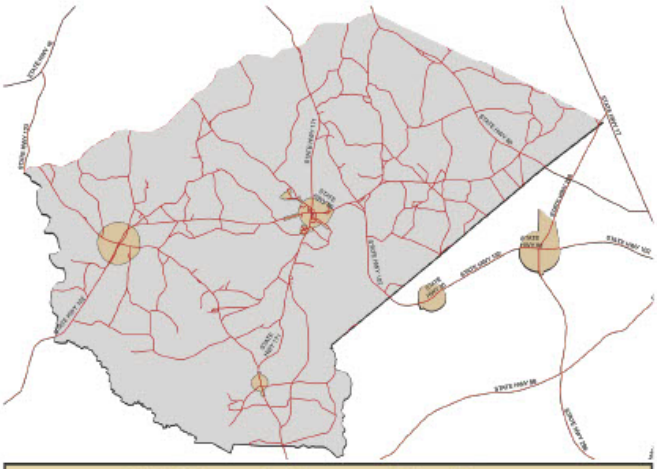
SENIOR CENTER

Like many of the CSRA counties, Glascock County has a senior center. On average, the members are 60 years old and over. The center currently offers Tai Chi, in your chair exercise, games, exercise equipment, art projects, Bible studies and trips around the CSRA area. Members also enjoy monthly parties and BBQs and have a breakfast 2 times a month. Seniors will now be able to utilize a small, loaned indoor greenhouse and grow light to start planting seeds. All plants will be transferred outdoors in the Spring. The seniors are welcome to pick from any of the plants to take home.

Attendance at the center is below the state target of 30 per day. However, attendance has been increasing, and the county must examine if the current building can support the increased traffic. The center has recently hired a new director who is working to find new and exciting activities to have the seniors participate in. Center needs include more art supplies, decorations for seasonal themed parties and a commercial kitchen. Additionally, because of the center's location (up the hill past Brassell Park), visibility of the location is an issue. Wayfinding signage closer to the main road can help remedy this.

ROAD NETWORK

There are roughly 231 miles of roads in the County network. This mileage includes 81 miles of state highways, 364 miles of county roads, and 17 miles of city streets (Edge Hill, Gibson, and Mitchell). State highways 80, 102, 123, and 171 are major transportation routes in the County.



2018 Mileage by Route and Road System			
	Road Mileage	Lane Mileage	Vehicle Miles Traveled (VMT)
State Route	40.57	81	37,729
County Road	181.99	364	90,967
City Street	8.44	17	4,314
Total	231.01	462	133,010
Georgia Department of Transportation, Office of Transportation Data, 445 Report, 2018			

In 2012, the CSRA region was one of only three (3) in the state to pass the Transportation Investment Act (TIA, aka TSPLOST). The proceeds from TIA have been used to design and construct dozens of essential transportation improvements across all 13 counties in the region, either through the projects designated on the region's final project list, or through the 25% discretionary funds. TIA represents a 1% transportation sales tax to fund regional and local transportation improvements, of which 75% of funds go to a predefined project list. Discretionary funds are used on a variety of projects, such as airports, roads, bridges, bike lanes, and pedestrian facilities. The funds can be used on any new or existing transportation projects, including operation and maintenance or as a match for state and/or federal funds. The regional TSPLOST must be reauthorized in order to continue past 2022 and will be voted on in 2020 in all counties.

The CSRA TIA Project list at a glance as of December 2019:

Total Projects: 84

Projects Under Construction: 11 | Projects Completed: 49

TIA Funds Budgeted (2011 Dollars): $713,019,813

Total Expenditure to Date: $200,476,725.06

The County is also currently participating in the statewide MAP-21 effort (originating from the Moving Ahead for Progress in the 21st Century Act of 2012) to gather Geographic Information Systems (GIS) data on local roads. The regional commissions across the state are GDOT's partner in this effort. Aside from the road location, attributes on ownership, road name, operation, number of lanes, and surface type are also collected and reviewed. Additionally, GIS data will be available on the locations of intersection traffic control devices (e.g. stop sign, traffic light) throughout the County. The updated local roads and traffic control device layers will be utilized by GDOT and can be used locally in future mapping, fire and emergency services, and other areas as needed.

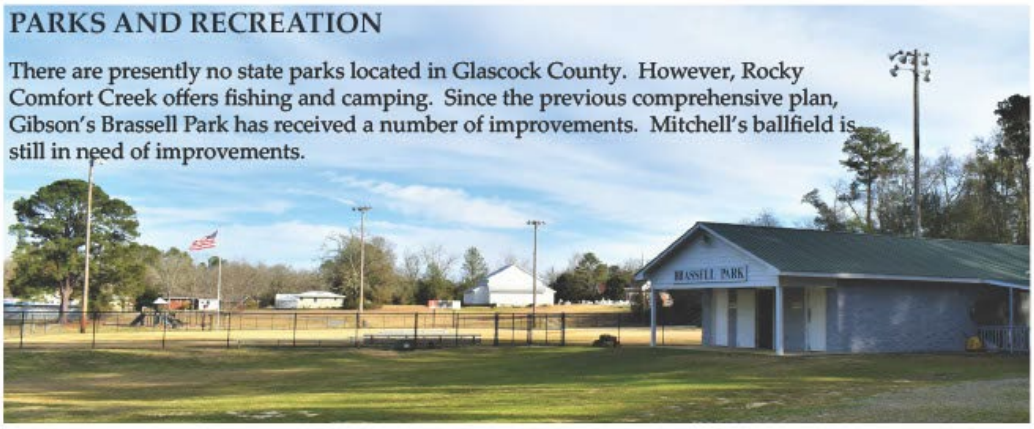
SIDEWALKS AND OTHER TRANSPORTATION

Currently Glascock County has no mass transit system. It also doesn't have a comprehensive sidewalk inventory. Mitchell and Gibson both have significant area covered by sidewalks in their downtown areas and nearby neighborhoods. Sidewalk quality varies. Communities should focus on repair and maintenance of sidewalks in existing areas as well as seek opportunities to expand into new areas.

Glascock County, Gibson, Mitchell, and Edge Hill residents are served by the Glascock County Rural Transportation System. The transit service is available to all Glascock County residents by appointment (24-hour notice required) and can provide customers with access to facilities within all of Glascock County between the hours of 8:00 AM and 5:00 PM, Monday through Friday. The transit system also makes weekly trips to Wrens, Sandersville, and Augusta. The Glascock County Rural Transportation System operates one van with a wheelchair lift. The system offers significantly lower fare box rates for residents 60 years or older than for younger segments of the population. Funding for the system comes from a mix of local sources – including operating revenues – and Federal Section 5311 funds. Agreements with the Georgia Department of Human Services and other state departments also allow the transit system to provide free trips to qualifying seniors and citizens with limited economic resources.

PARKS AND RECREATION

There are presently no state parks located in Glascock County. However, Rocky Comfort Creek offers fishing and camping. Since the previous comprehensive plan, Gibson's Brassell Park has received a number of improvements. Mitchell's ballfield is still in need of improvements.



FAMILY CONNECTION/COMMUNITIES IN SCHOOLS

Family Connection & Communities In Schools of Glascock County, Inc. (FCCIS-GC, Inc.) is the county's planning and advocacy body for children, youth, and families. This non-profit organization was established in Glascock County in 1999. The mission of FCCIS-GC, Inc. is "to bridge the gap of unrealized possibilities and unfulfilled potential by uniting our community, connecting resources and providing support to ensure the success of all children and families."

Programs currently offered by FCCIS-GC, Inc:

After School and Summer Program	Clothes Closet	Holiday Luncheon
Alcohol and Substance Abuse Prevention	Crib and Car Seat Program	Red Ribbon Week
AmeriCorps	Driver's Education	Sights for Students
Bright From the Start (SFSP / CACFP)	Energy Assistance	Toys for Tots
Career Fair	GED Testing Fees	Workforce Innovation and Opportunity Act
Character Education	Golden Harvest Food Bank	Youth Survey (9th-12th Grade)
Children's Literacy (First Readers)	Health Fair	

Of these programs, the after-school program has approximately 150 student attendees Monday-Friday. The food distribution program distributes hundreds of pounds of food each month to individuals of all ages. Additionally, the FCCIS-GC clothes closet has grown tremendously over the last five (5) years.

FCCIS-GC currently operates out of the old 1950s school building it shares with Oconee Fall Line Technical College (OCTC). The building itself is partially renovated, and the current tenants fully occupy that space. Some areas still need repairs and upgrades such as new flooring and parking lot paving. Other areas would require a renovation to better serve the current tenants. For example, FCCIS-GC has several classrooms set up in the old cafeteria, but individual classrooms would reduce overall noise and provide a better learning environment. If the building were fully renovated, additional uses for the space include a licensed daycare facility and adult education classes through OFTC.

Economic Development

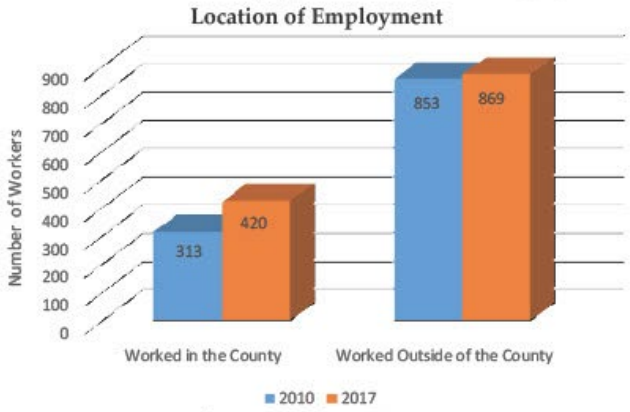
The economic development section discusses current data and trends related to the local and regional economy and draws on other plans, including the CSRA Regional Plan and Comprehensive Economic Development Strategy (CEDS). The strength and capability of a community's labor force influences several aspects of the overall well-being of the area including, but not limited to, development and quality of life. The data and suggestions contained herein can be used when making future policy and investment decisions.

THE LOCAL AND REGIONAL ECONOMY

Conversations with stakeholders indicate that the effects of the Great Recession remain to this day. Like many rural communities, Glascock County has recovered slower from the economic downturn than urban areas.

Based on the 2017 ACS, median household income for Glascock County is $45,273. The median income in Glascock County is well below that of the state as a whole, which again is expected in a largely rural county. Although lower than the state, the median household income in the county is still up $15,000 since the year 2000.

Generally speaking, having employment opportunities available nearby is desirable for a number of reasons, including creating a stronger tax base and reducing transportations costs for residents. In a county with fewer available job opportunities, it is expected that county residents would seek work outside the county. Since 2010, the total population of Glascock County has decreased. However, the number of residents employed, including those employed in Glascock County, has increased.



Source: U.S. Census Bureau

Approximately 67% of employed residents work outside of Glascock County, many of them traveling to neighboring counties or into Augusta metro area for work. The average travel time to work is 31 minutes. The vast majority of those residents drive alone. Although this number is high, it represents a five percent decrease since 2010. This continues a trend since the year 2000 of increasing numbers of residents working inside the County. Given its nature as a rural county on the border of a larger metropolitan area, Glascock County is likely to continue to export significant amounts of labor in the future, but that amount can be reduced. The County is making strides to recruit business and industry, including a project in the 2022 TSPLOST for turn lanes into the industrial park.

Projected Regional Job Growth

Like much of Georgia and the U.S. manufacturing and agriculture have played a historically important role in the CSRA economy. It some areas, those sectors remain very important; where in others, new sectors are beginning to take hold. Among the growing industries in our area are the following: health care, services, cyber, and information technology. These industries will play an increasing role in the region's employment picture over the next decade and beyond. Each county must examine how to best participate in the new economy - as a hub for jobs, a home for commuters, a place to relax, and more.

The table below displays projections for job openings from the publication "Georgia Area Workforce Trends: Projections to 2018." The data is at the Workforce Innovation and Opportunity Act Service Area (WIOA) level as defined by the Georgia Department of Labor. WIOA area #13 encompasses 10 counties in east central Georgia: Columbia, Glascock, Hancock, Lincoln, McDuffie, Taliaferro, Warren, Washington and Wilkes. The fastest growing occupations in WIOA #13 are diverse and associated with retail and service industries. The balance of the CSRA region is covered by WIOA area #12. The trend in Area #12 also includes service and retail occupations, as well as registered nurses and nursing assistants.

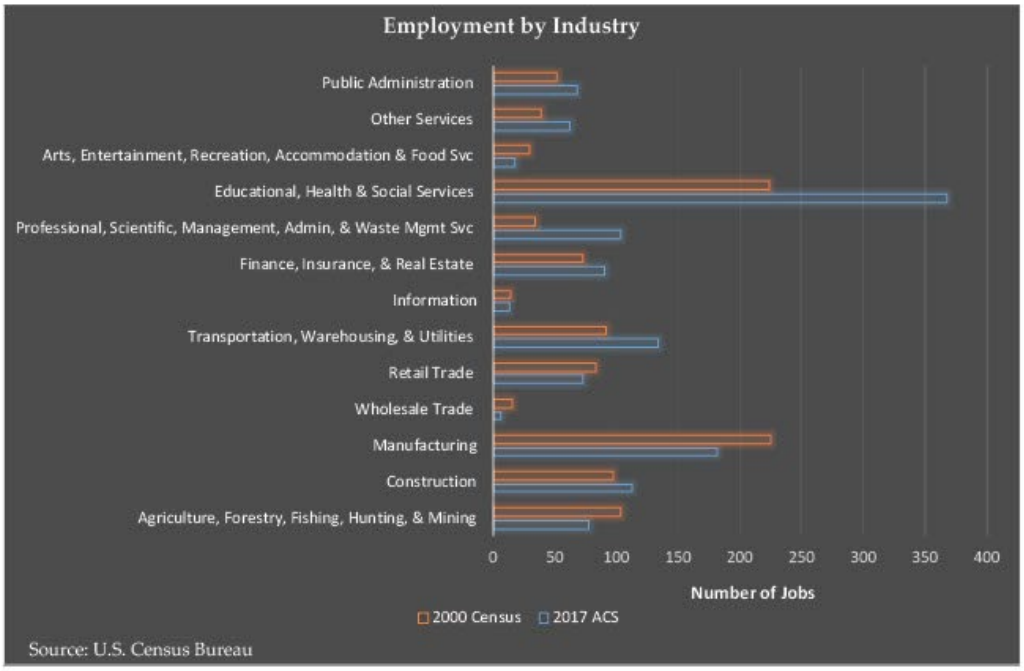
Occupations with the Most Openings Through 2024
WIOA Area #13

Going broader than specific occupations, the table below displays the top ten industries in WIOA Area #13 with the highest projected job growth. Two sectors that rose to the top are Retail Trade and Health Care & Social Assistance, accounting for nearly half the projected jobs through 2024. 2018 employment numbers indicate that the top industry growth sectors are on track with or surpassing projections. Glascock County should examine three areas related to this: training and education, job creation, and housing availability.

Top Industry Growth Sectors through 2024, WIOA Area #13

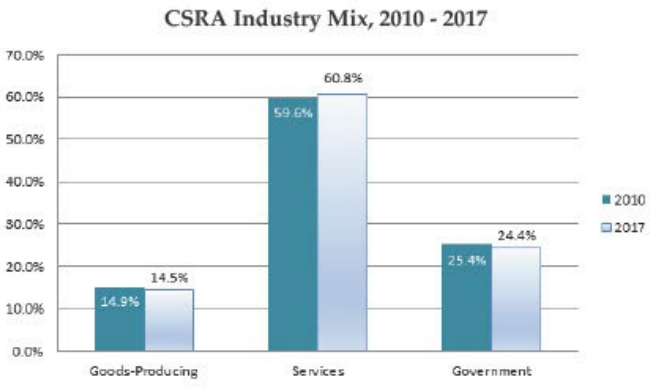
	2014 Estimated Employment	2024 Projected Employment	Total 2014-2024 Employment Change	2014-2024 percent Change
Retail Trade	7,912	10,116	2,204	27.86%
Health Care & Social Assistance	6,049	7,977	1,928	31.87%
Educational and Social Services	6,764	7,705	941	13.91%
Accommodation and Food Services	5,340	6,066	726	13.60%
Professional, Scientific, and Technical Services	1,779	2,464	685	38.50%
Construction	3,182	3,788	606	19.04%
Finance & Insurance	2,135	2,605	470	22.01%
Manufacturing	6,795	7,226	431	6.34%
Waste Management & Admin. Support	2,706	3,074	368	13.60%
Arts, Entertainment, and Recreation	645	896	251	38.91%

Source: Georgia Department of Labor Area Workforce Trends: Projections to 2024



Employment By Industry

The chart above shows changes in the levels of employment by industry between 2000 and 2017. In the year 2000, the manufacturing and education/health/social services industries had the largest number of jobs. This held true according to the 2017 ACS data with one difference. The manufacturing employment decreased, while the education/health/social services experienced a significant increase. The Glascock County school system and nursing home are the largest employers in the County. Other areas with increases since the year 2000 include: transportation and warehousing, construction and public services. Despite a drop in retail trade, a small grocery store offering meat, dry goods and fresh produce opened in 2016. This pattern of ongoing shifts from the manufacturing to the service sector is not uncommon and is found across the region and country. Approximately 60 percent of the CSRA's jobs are in services, followed by government (24.4 percent) and goods producing (14.5 percent). The majority of businesses employ ten or fewer people. Major employers such as utility firms, education institutions,



Source: Georgia Department of Labor Local Area Profile

and government agencies complement the small business sector of the economy. In Glascock County, there's room to increase the number of small businesses, particularly those that do not require broadband.

Another important sector for the state that the communities could benefit from is tourism. Tourism is an important sector because it is still underdeveloped with high growth potential. The CSRA has an established cultural tourism industry, with numerous events, visual performance arts and culture. The region's location – near Atlanta and Charlotte - also provides great potential as a gateway community to travelers from the southeast and throughout the nation. Communities in Glascock County can also promote their low traffic state roads and scenic landscapes for cyclists.

It is true that most tourism-related jobs are low paying jobs, but it is also true that these are the kinds of jobs that are appropriate for the skill level of some segments of the CSRA's labor force (including students and low-skilled residents).

One growing sector of the entertainment industry for the state of Georgia as a whole is filming. Glascock County and its municipalities have beautiful scenery, including landscapes, historic homes, and downtown areas. The Camera Ready Communities (aka Go Film Georgia) program connects community liaisons for its participating communities with film and TV productions. The program also has a website with location photos and information on the area surrounding the chosen communities. Currently, Gibson is the only location listed as "camera ready" in Glascock County. Having more locations designated as camera ready will be beneficial. Most filming is permit free around the state, but some communities do have certain standards and require a nominal fee. The municipalities should consider establishing downtown development authorities and other property standards for retaining the character in their downtowns and sourcing funds for facade maintenance or restoration.

Land Use

Neither Glascock County, nor its contained jurisdictions have zoning currently. However, the communities have a land use-related vision for the future. While the community goals section covers a range of topics, the Character Areas in this plan deal with the physical environment, both natural and built. The Character Areas are a means of expressing the vision for how the community should look and function in the future. While they cover different areas of the county, they are not like zoning and do not focus primarily on specific uses.

This section is advisory in nature and is intended to be used as a guide for making decisions about investments, regulations, and other government or community actions.

CHARACTER AREAS

The Comprehensive Plan incorporates a Character Area Map as its principal means by which long-term land use goals and policies are expressed. In all eight Character Areas were created and described in detail, including:

- Countryside
- Industrial Park
- Watershed
- Historic Community
- Gibson
- Downtown Gibson
- Gibson Gateway
- Mitchell

As this plan was done jointly with all local governments in Glascock County. While some of the Character Areas are clearly more relevant to individual local governments (Downtown Gibson, for example), it is also true that decisions made by one government can affect others. For instance, a decision by the City of Gibson to extend infrastructure might affect the Countryside character area beyond its borders. Similarly, a decision by Glascock County with respect to road improvements might affect areas in Gibson or Mitchell. Local governments are strongly urged to consider the impacts of their actions on all Character Areas.

General Characteristics

Unlike a parcel-specific future land use map, boundaries on a character area map are conceptual and may cross parcel lines. The character area boundaries in this document are intended to represent an approximation. This flexibility allows the governing body charged with implementing the plan to make decisions based on changing conditions while reducing the need to continually update the future development map. As a result, it is possible to assume that small parcels located directly adjacent to one or more character areas may be permitted by the local government to develop according to the parameters of the adjacent area rather than the area in which it is located. Such an action should be taken sparingly and the decision should only be made if the local government can show that it is consistent with the recommendations provided in all other sections of the Comprehensive Plan.

For the most part however, a tract should develop according to the parameters established in the specific character area in which it is located. All jurisdictions are strongly encouraged to initiate amendments to their character area map whenever they intend to promote a development pattern in an area that is inconsistent with the adopted map.

Cluster Subdivisions

A cluster subdivision is one where there is a reduction in the lot area, setback, or other development standard, provided that there is no increase in the allowed net density. Clustering of residential development does two things: reduces the negative impacts (such as infrastructure cost) of traditional sprawling subdivisions, and preserves open space.

Natural Resource Zoning Districts

There is not a zoning ordinance in place to protect the rural nature of the "countryside" character area. Establish a natural resource zoning district that seeks to protect the natural integrity of the land while still allowing for people to utilize the land in the most responsible manner is recommended. It is

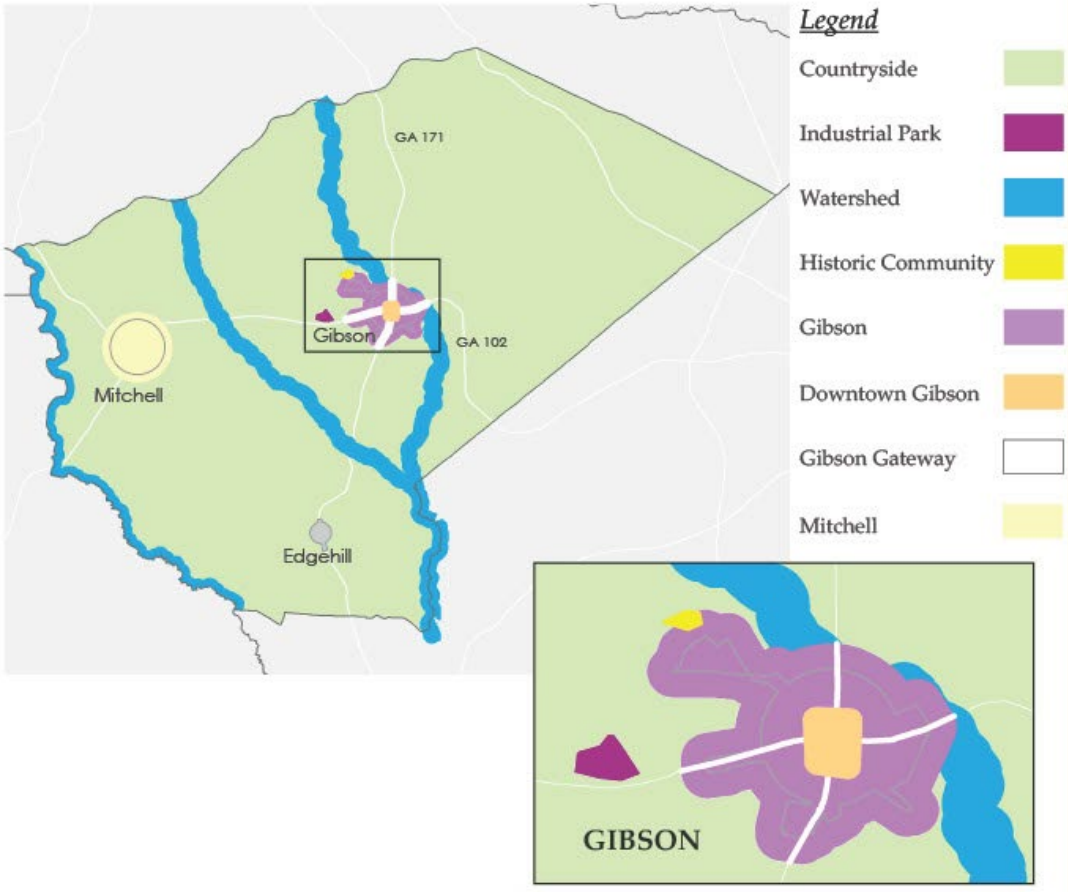
essentially a cluster subdivision as described above but with a much lower density. The key difference between the two is that a cluster subdivision's open space is preserved in its natural state perpetuity, and in the natural resource zoning district the open space may be used for pasture/timber/agricultural uses etc. By establishing a large minimum lot size (10 acres, for example)and allowing only a specific portion of each lot to be used for residential development, the rural character and natural resources in the "countryside" character area could be preserved.

Conservation Subdivisions

While based on the same concept as a cluster subdivision, a conservation subdivision goes a step further in incorporating unique natural features of a site into the subdivision's design.

While a clustered subdivision is concerned with the layout of the lots, a conservation subdivision is more concerned with leaving as much of the original site as undisturbed as possible. Use of existing vegetation and natural features as a means to control storm water, reduce the need for pesticide, and control erosion makes these types of subdivisions ideal for locations in the "countryside" area near the "watershed preserves."

CHARACTER AREA MAP



CHARACTER AREA: COUNTRYSIDE

OVERVIEW:

The Countryside character area is predominantly rural, undeveloped land that is used for agriculture or rural residential. Future development in the Countryside character area should strive to retain this rural character through the preservation of open spaces. Very large lot residential, clustered or conservation residential subdivisions and agricultural uses should continue to be the preferred development pattern within the area.

EXISTING CHARACTER:

- Mix of rural uses including forestry, agriculture, and low density residential
- Commercial uses primarily limited to convenience enterprises at major intersections
- Location of current industrial park operations
- Increasing amount of subdivision and large lot residential development
- Targeted areas of public water and sewer expansion

Rolling hills and scenic vistas are an important part of the Glascock County landscape.

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Emphasize cluster subdivision design that incorporates a significant amount of open space
- Apply natural resource zoning district standards to majority of character area to significantly increase lot sizes for residential uses
- Encourage compatible architecture to maintain regional rural character
- Whenever possible connect to network of trails or bike routes particularly those located within the watershed reserve.
- Focus infrastructure investment on maintenance rather than expansion in order to retain rural character

Agriculture and timber production help define the character of the Countryside Character Area.

Where subdivisions are built, homes should be clustered, leaving significant green space (left), rather than spreading out in a uniform manner (right).

Homes on larger lots, a typical characteristic of this area currently, should continue to define this part of the county.

CHARACTER AREA: INDUSTRIAL PARK

OVERVIEW:

This character area has a high degree of access to transportation facilities within the county and can be the home of future manufacturing and warehousing uses within the county. This area lies away from most residential centers, so conflicts from negative byproducts of industry are minimized.

EXISTING CHARACTER:

- Undeveloped land
- Rural setting
- Relatively little development on neighboring properties, reducing the potential for conflicts

Glascock County's industrial park property lies outside of Gibson on GA 102.

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Concentration of future industrial and manufacturing uses
- Provision of streets designed to accommodate continual large vehicle traffic
- Supporting commercial and offices as secondary uses
- Zoning districts that do not allow for residential development
- Landscaping with a focus on significant buffering of industrial uses from adjacent uses and thoroughfares

With adequate site planning and landscaping, industrial uses can fit in well into a rural landscape.

CHARACTER AREA: WATERSHED

OVERVIEW:

The environmentally sensitive lands in this character area are unsuitable for most development. These areas include water supply watersheds, protected river corridors, wildlife management areas, and other environmentally sensitive areas. This land could be best used as open space and, in conjunction with other character areas, to create a network of trails or greenways that provide recreation and transportation options.

EXISTING CHARACTER:

- Lands containing and adjacent to streams, and floodplains
- Properties located within the Rocky Comfort Creek and Joe's Creek water supply watersheds
- Watershed properties subject to land use restrictions and environmental regulations
- Streams and floodplains largely undeveloped but experiencing some instances of sedimentation due to agricultural /pasture operations

Glascock County has a number of waterways that both provide scenic value and serve as important natural resources.

This character area includes not just waterways but adjacent wetlands and other buffer areas.

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Promote preservation of watershed areas' natural features
- Require buffer areas of streams and floodplains while retaining native vegetation
- Purchase of properties and or easements in the watershed
- Limit residential density in watershed areas
- Promote passive activity & development along stream and corridors (trails, benches, picnic tables, outdoor classrooms, etc.)
- Develop bicycle and pedestrian "greenway" corridors while creating linkages to and between adjacent development and properties

While watershed areas should be maintained in a natural state, they are excellent locations for trails and similar uses.

Trails directly alongside waterways can be appropriate (left); agricultural uses (right) are also envisioned, although vegetated buffers and other practices can eliminate agricultural runoff into waterways.

CHARACTER AREA: HISTORIC COMMUNITY

OVERVIEW:

Protection of the historic character of historic resources should be the guiding principle of all development within the character area. Clustering of low density residential development can protect the viewsheds and preserve open space that maintains the historic context and feel of the area.

EXISTING CHARACTER:

- Historic structures, landscapes or communities
- Large tracts of agricultural and forest lands
- Surrounded by open space

This area exhibits traditional rural or small town landscapes and structures.

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Low density clustered or conservation residential development
- Design guidelines to preserve historic character
- Placement of buildings as to protect view sheds
- Limitation of nonresidential uses to home occupations
- Use of bisecting "watershed preserve" character areas according to applicable development pattern recommendations
- Limit development threat to historic context through concentration of water/sewer expansion to "industrial park" character areas

Future development in or near these areas should respect and preserve the existing character.

CHARACTER AREA: GIBSON

OVERVIEW:

Because of its compact size the City of Gibson character area is bound by a strong sense of community. Encompassing the majority of the city, the traditional development pattern and distance from other development serve to strengthen Gibson's sense of place. This area should strive to include housing options for all residents, and increase interconnectivity throughout the community with the addition of pedestrian and bicycle facilities linking community facilities and destinations.

EXISTING CHARACTER:

- Low density residential and supporting community uses
- Mixture of traditional and modern style of neighborhood development
- Properties and buildings in varying states of repair
- Large undeveloped tracts on the periphery of area
- High level of interconnectivity within developed areas
- Incomplete connectivity of pedestrian facilities

Gibson is characterized by a traditional small-town atmosphere, with historic homes and walkable streets.

Building and property maintenance is an issue with some properties in this area.

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Continued emphasis on single family development, particularly along or connecting to developed streets
- Addition of multifamily housing in close proximity to major public services and the downtown area
- Improved sidewalks, crosswalks, trails and other options for pedestrians
- Continue interconnected street pattern as new parcels are developed
- Abate building and property nuisances through codes and code enforcement

New development can fit into the traditional interconnected and pedestrian-friendly pattern that characterizes Gibson.

Sidewalks and trails can better connect housing with downtown, schools, parks and other destinations.

CHARACTER AREA: DOWNTOWN GIBSON

OVERVIEW:

Downtown Gibson will continue to serve as the focal point of the community. Its current mix of service and public /institutional uses will serve as the anchor for a walkable activity center. The addition of pedestrian and bicycle facilities will encourage alternative modes of transportation to the community facilities already located downtown. Additionally, design standards will serve to give new development a similar vernacular, strengthening and preserving Downtown Gibson's sense of place.

EXISTING CHARACTER:

- Mix of commercial, service, institutional, and retail uses
- Property in varying conditions
- Limited pedestrian features and connectivity
- Recent development more in strip commercial style
- Bisected by major highway corridors (GA 171 and 102)
- Includes some underutilized or vacant properties
- Mixture of old and new structures
- Historic downtown character still intact
- Some infill with inappropriate design and character

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Adopt design guidelines to ensure that future development reflects a traditional building character, orientation, and placement on site
- Soften hardscape with landscaping standards
- Encourage new commercial development to locate downtown
- Add more pedestrian facilities to increase access to major destinations (post office, city hall, etc.)
- Incorporate design guidelines for new development to preserve historic downtown character

Gibson possesses a vibrant and walkable downtown, with a mix of businesses that are easily accessible to surrounding neighborhoods.

In some cases, new development, while welcome, includes signage and setbacks of more of a highway scale and type than a downtown.

Banners, trees and other unifying elements and an improved, more usable downtown square can make downtown Gibson more inviting.

Additional street trees can improve the appearance of downtown and make it more attractive to residents, visitors and potential investors.

CHARACTER AREA: GIBSON GATEWAY

OVERVIEW:

Office and retail areas along Main Street that focus on local community services located in smaller buildings and development tracts than would be found in the "regional commercial" character area. Future development patterns should focus on on-site access management features, pedestrian enhancements, and uniform building, site, landscaping and sign standards in order to improve function and aesthetics.

EXISTING CHARACTER:

- Mix of vacant sites and small-scale retail development
- Increasing number of small strip centers
- Multiple curb cuts on main thoroughfares
- Limited landscaping features and signage of variable sizes and shapes
- No unifying building elements across sites
- Increasing amount of neighborhood serving retail

Gateways into Gibson, such as 102/Main Street, exhibit a mix of traditional and strip commercial development styles.

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Small-scale office and retail development(buildings and parcels)
- Maximum building square footages
- Shallow depth of commercial zoning
- Controlled vehicular access via curb cut spacing and
- cross-access easements
- Onsite pedestrian and bicycle features
- Uniform design standards for buildings, landscaping and signage
- No off-premises signs
- Standards and incentives to promote the reuse of remaining residential structures
- Street improvements that fit small city context
- Parking behind (preferably) or beside buildings

The gateway district marks the transition between rural speeds and scenery and city land uses.

Avoiding a landscape of high-speed roads fronted by large parking lots is a priority.

Primary roads leading to downtown can still convey a sense of place by minimizing parking and placing it behind buildings, planting trees and other measures.

Requirements (or lack thereof) for sign size and construction make a major impact on the appearance of gateway districts. Credit (right): Foam Monument Blog.

CHARACTER AREA: MITCHELL

OVERVIEW:

This character area includes the entire town, which includes a small downtown, residential streets, a crossroads, and undeveloped land. The town has well-maintained roads and walkable streets with sidewalks. Vacancies exist in the commercial properties downtown and at the crossroads. Strategies largely involve ensuring that new development fits into the existing context of the town, less in terms of architectural design than in terms of continuing the pattern of a connected street grid, sidewalks and parking not in front of buildings.

EXISTING CHARACTER:

- Historic downtown character still intact
- Includes some underutilized or vacant properties
- Low density residential and supporting community uses
- Mixture of traditional and modern style of neighborhood development
- Large undeveloped tracts on the periphery of character area
- High level of interconnectivity within developed areas

Traditional neighborhoods and housing, combined with sidewalks and roads designed for low speeds, characterize Mitchell.

DEVELOPMENT PATTERN RECOMMENDATIONS:

- Continued emphasis on single family development, particularly along or connecting to developed streets
- More bike/pedestrian transportation options for linkages to community facilities
- Continue interconnected street pattern as new parcels are developed
- Abate building and property nuisances through codes and code enforcement
- Encourage new development to respect the walkable, small town, context in terms of site design, signage, connections to sidewalks and other essential considerations.

Additional street trees can make a significant difference in the attractiveness of downtown Mitchell..

Adding sidewalks to primary streets such as GA 102/Main Street (left) can provide more options for residents, as shown on Warren Street (right).

Downtown Mitchell offers historic storefronts and pedestrian amenities, but vacancy rates have been an issue.

Natural and Cultural Resources

The natural and cultural resources located throughout Glascock County are important to the community and represent both an opportunity and a challenge. Beautiful natural landscape substantial number of historic resources, and preserved downtowns present great opportunities for tourism and recreation. However, the lower price of land may attract future development that's incompatible with or has negative effects on natural features or historic character. The jurisdictions must examine the effects of new development on these critical resources and take steps to protect the watershed, wetlands, and iconic structures.

NATURAL RESOURCES

This section is primarily focused on the area's water resources and ensuring they are adequately protected from development and are available to serve both current and future residents.

Environmental Planning Criteria

As part of the Georgia Planning Act of 1989, the Georgia Department of Natural Resources (DNR) developed the Rules for Environmental Planning Criteria for use by local communities. The Criteria establish recommended minimum planning standards for the protection of water supply watersheds, groundwater recharge areas, wetlands, river corridors and mountains. This chapter identifies those applicable resources that are found in Glascock County and its municipalities. Because there are no protected river corridors or protected mountains in close proximity to Glascock County, those specific items are not addressed by this plan.

Water Supply Watershed

Water supply watersheds are defined by DNR as the areas of land upstream of a governmentally owned public drinking water intake. There are many different factors that determine the volume of water in a stream or other body of water. These factors include the amount of precipitation, land cover, slope, soil type, and capacity and speed of absorption into the soil. Any water that is not absorbed by the soil, detained on the surface by lakes or ponds, or used by vegetation, runs off of the land as overflow, or surface runoff. Water that is later released by the soil adds to this overflow to produce what is known as total runoff. As runoff flows to areas of lower elevation, it collects in drainage areas, the boundaries of which form watersheds. Runoff from these watersheds flows into streams which serve as outlets for water in the watersheds. The removal of vegetation and the introduction of roads, parking lots and other impervious surfaces increase the total runoff on a site which in turn increases erosion, flooding, and sedimentation of water sources.

To protect drinking water supplies downstream, DNR has recommended buffer requirements and impervious surface limitations to be applied to certain watersheds. For watersheds with an area less than 100 square miles, all perennial streams within seven miles upstream of a public water supply intake have a required 100 foot buffer on each side within which no development can occur (150 feet for impervious surfaces and septic tank drainfields). Beyond seven miles upstream, 50 foot buffers are required within which no development can occur (75 feet for impervious surfaces and septic tank drainfields).

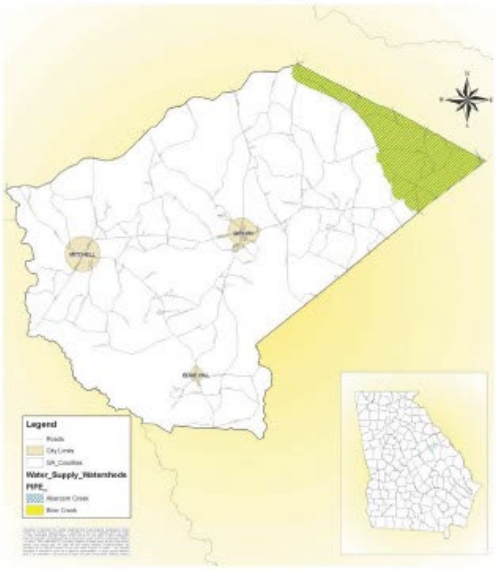
Currently, all municipalities draw their water from wells and have multiple storage tanks. The unincorporated Glascock County does not have public water service. Therefore, since portions of Glascock County lie within a public or private surface water supply watershed, the DNR buffers and impervious surface limitations are necessary in Glascock County or its three cities.

Glascock County is located within the Ogeechee River drainage basin. Within this basin, portions of two major watersheds can be found in Glascock County: the Abercorn Creek Watershed and the Brier Creek Watershed. This plan makes note of these "water supply watersheds" because they require additional resource protection to ensure a safe supply of public drinking water. DNR's Rules for Environmental Planning Criteria define a water supply watershed as an area of land upstream from a governmentally owned public drinking water intake. Glascock County water supply watersheds can be found on the next page.

In part to address the problem of runoff, the Criteria establish a recommended set of standards to protect surface water supplies including the use of buffer zones around streams and specifying allowable impervious surface densities within such watersheds.

At less than 100 square miles in size, the Glascock County water supply watershed is considered "small water supply watershed" and is subject to DNR's "small watershed criteria." Small watersheds are theoretically more vulnerable to contamination by land development.

Map A: Water Supply Watersheds



Minimum Criteria for Small Water Supply Watersheds

The perennial stream corridors of a small water supply watershed within a seven-mile radius upstream of a governmentally owned public drinking water supply intake or water supply reservoir are protected by the following criteria:

- A buffer shall be maintained for a distance of 100 feet on both sides of the stream as measured from the stream banks.
- No impervious surface shall be constructed within a 150 foot setback on both sides of the stream as measured from the stream banks.
- Septic tanks and septic tank drainfields are prohibited in the setback area.

The perennial stream corridors within a small water supply watershed and outside a seven mile radius upstream of a governmentally owned public drinking water supply intake or water supply reservoir are protected by the following criteria:

- A buffer shall be maintained for a distance of 50 feet on both sides of the stream as measured from the stream banks.
- No impervious surface shall be constructed within a 75 foot setback area on both sides of the stream as measured from the stream banks.
- Septic tanks and septic tanks drainfields are prohibited in the setback areas.

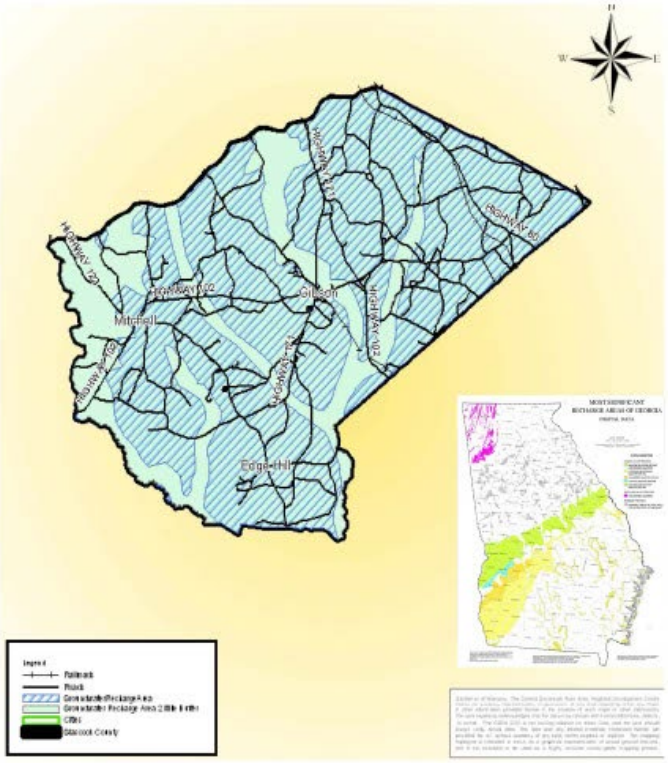
The following criteria apply to all locations in a small water supply watershed:

- New sanitary landfills are allowed only if they have synthetic liners and leachate collection systems.
- New hazardous waste treatment or disposal facilities are prohibited.
- The impervious surface area, including all public and private structures, utilities, or facilities, of the entire water supply watershed shall be limited to 25 percent, or existing use, whichever is greater.
- New facilities which handle hazardous materials of the types and amounts determined by DNR, shall perform their operations on impermeable surfaces having spill and leak collection systems as prescribed by the DNR.

Groundwater Recharge

Groundwater recharge areas are portions of the earth's surface where water infiltrates the ground to replenish an aquifer, which is any stratum or zone of rock beneath the surface of the earth capable of containing or producing water from a well. In order to avoid toxic and hazardous waste contamination to drinking water supplies, groundwater or aquifer recharge areas must be protected. While recharge takes place throughout almost all of Georgia's land area, the rate or amount of recharge reaching underground aquifers varies from place to place depending on geologic conditions.

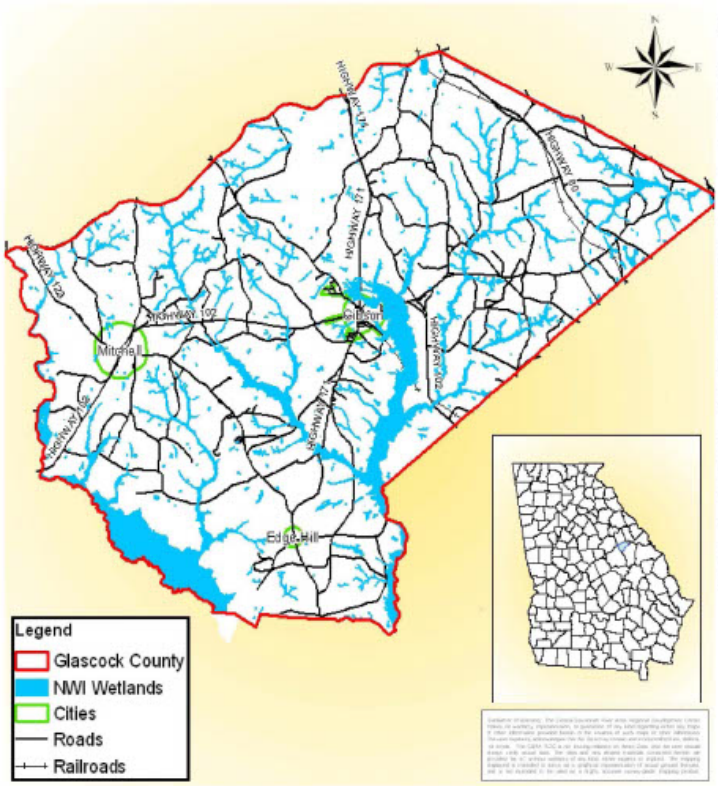
Map B: Groundwater Recharge



According to data provided by DNR on the Groundwater Pollution Susceptibility Map of Georgia, Hydrologic Atlas 20 (Map B), most of the Glascock County area is served by the Cretaceous Aquifer. This aquifer is primarily a system of sand and gravel and serves as a major source of water for East Central Georgia. DNR has mapped all of the recharge areas in the state which are likely to have the greatest vulnerability to pollution of groundwater from surface and near surface activities of man. Map B (attached) graphically displays the locations of the major aquifer recharge areas within the boundaries of Glascock County and its three cities.

Development in these areas should be limited to very low impact development in which little to no area is covered with impervious surfaces such as roads, parking lots and building pads. The subsurface integrity of these areas should also be maintained by avoiding development that may contaminate water supplies (i.e. landfills). The Georgia DNR has recommended that local government adopt minimum criteria for groundwater protection as part of their land use regulations. These recommended criteria would apply to new development in the aquifer recharge areas identified in Map B. However, due to the fact that very limited development is expected within Glascock County and the municipalities of Edgehill, Gibson and Mitchell during the planning period, the county and its cities do not foresee a need for any additional land use regulations for protection of groundwater.

Map C: Wetlands



Wetlands

Federal law defines freshwater wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Under natural conditions wetlands help to maintain and enhance water quality by filtering out sediments and other non-point source pollutants from adjacent land uses. In addition to this, they store water and provide habitat for a variety of plant and animal species.

Please refer to Map C for approximate wetland locations. This map is based upon the location of soil associations which contain many of the characteristics found in a wetland environment.

Preservation of wetlands is vital because of the many important functions they serve. They are among the world's most biologically productive ecosystems and serve as crucial habitats for wildlife. Wetlands can help maintain water quality or improve degraded water by performing functions similar to a wastewater treatment plant, filtering sediment, toxic substances and nutrients. Wetland vegetation filters and retains sediments which otherwise enter lakes, streams and reservoirs often necessitating costly maintenance dredging activities. Wetlands are also important to flood protection, as they act as water storage areas, significantly reducing peak flows downstream, and the meandering nature of wetlands combined with abundant vegetation reduce flood velocities.

CULTURAL RESOURCES

Glascock County and its cities have many significant historic, archaeological, and cultural resources that provide the story of its people through the built environment. In 1978, the Georgia Department of Natural Resources/Historic Preservation Division (HPD) conducted a basic historic resources survey of Glascock County. Approximately, 190 buildings were inventoried on a standard historic resource form used then. The original survey is kept on file at HPD in Atlanta.

The following 13 cultural resources were selected as Glascock County's most significant and eligible for inclusion in the National Register of Historic Places. Following each historic building is the National Register criteria that would qualify the resource as eligible for inclusion in the National Register. As resources permit, the county and cities should work with the historical society and the RC to consider applying for NR listings.

Individual buildings and farms were pulled from the 1978 historic resources survey and historic districts were determined eligible for listing by the intact nature of the clusters of historic properties. These 13 resources include structures in Glascock County and Gibson and Mitchell. Edgehill did not have structures listed in the 1978 survey. Archaeological resources were not covered in the 1978 survey but can be referenced by professionals at the statewide Archaeological Site File located at the University of Georgia.

1) Glascock County Courthouse, Listed in the statewide NR thematic nomination for courthouses in Georgia as a contributing building.

Built in 1918 by J.W. McMillian & Sons, in the Colonial Revival style of architecture, brick two-story. It was remodeled and had an addition in 1939 and 1973. The building originally consisted of a symmetrical mass plan with one gable at the center of each facade. The interior was based on a Grand Hall on the first floor from front to back with a staircase at each end. The second floor, Courtroom level, was comprised solely of the Superior Court courtroom. The building originally was lighted, but had no plumbing or cooling, and was heated with nine coal-burning fireplaces. In 1939, a WPA grant provided for an addition to the rear that mimicked the original detailing and side gables. It added restrooms and office space on the first floor, and a Judge's office, library, and jury room on the second floor.

Glascock County ordered a complete restoration/rehabilitation of the courthouse at the turn of the 21st century. The Georgia Trust for Historic Preservation awarded the County a 2007 award for "excellence in restoration" of the Glascock County Courthouse.

2) Peebles Homes, in Gibson, listed in Glascock County Historic Resources Survey #52

Built circa 1890s, Queen Anne style, Victorian. This unusual two-story brick home with a one-story wrap-around wooden porch was built by prominent citizen Isom Peebles. It is the only brick Queen Anne style house in the CSRA. Peebles was an attorney, owner of land and commercial stores in Glascock County, and later became a state representative. At the turn of the 21st century, Glascock County purchased the neglected home held in estate and rehabilitated it for use as the County Commission office space. It can be rented for small receptions and events. The Georgia Trust for Historic Preservation awarded the County a 2007 award for "excellence in rehabilitation" of the Peebles House.

3) Original Courthouse, in Gibson, listed in Glascock Historic Resources Survey #56

The Pope Kent Family owns and lives in this unique historic property. The original Glascock County Courthouse was built in 1858 on twenty acres of land donated by Calvin Logue. When the "new" Courthouse was scheduled for construction, in 1920, this one was put on logs and rolled down the street to its present site. William Gibson (for whom the town is named), donated $500 to build the courthouse and other public buildings. It has been rehabilitated but retained the original structure with additions and is in excellent condition. Request for nomination based on these factors: 1-History, 2-Architecture, 3-Connection with prominent local citizens, William Gibson for whom Gibson was named, Tom Grover Kent, Superintendent of Glascock Schools, and Ivelyn Kent, noted educator of the county.

4) Kelley House, in Gibson, listed in Glascock Historic Resources Survey #57

Present owner, Nancy Kent Bennett. Built 1880s, Gothic Revival style, by Dr. Thomas J.M. Kelley, son of James Kelley. Dr. Kelley was the town doctor and a member of an illustrious family in Glascock County's history. The house and livery stable at the rear are on the original site. It has a unique triple gable front and is characteristically board and batten of the Gothic Revival style. Request for nomination was based on these factors: 1-Architecture, 2-History, connection with one of Glascock's founding families. 3-Archaeology, family burial ground located on the original Kelley property near Chalker's bridge over Rock Comfort Creek.

5) James Kelley/Sherman Harris Place, in Glascock County, listed in Glascock County Historic Resources Survey # 36

Known as the Double H Ranch, lifetime owner Hardwick Harris has given it to his niece, Lanier Oxford. Built in 1828, this building is one of the earliest wooden buildings to be painted in the northern part of the state. It is in the plantation plain style, a two-story structure with a one-story ell-wing from the rear. Outbuildings are in good condition. The Kelley Family was an illustrious family with teachers, doctors, and landowners. James C. Kelley had four sons, three were doctors, and one was the farmer/landowner. Request for nomination based on these factors 1-Architecture 2-Family Tree, lives of founding family members important to Glascock County, 3-History.

6) Railroad Depot, in Mitchell, listed in Glascock County Historic Resources Survey #23

Structure built in Mitchell in 1886 and later moved to a nearby site in town. Depot owners, Etta and William Wilcher, donated the Depot to the Town of Mitchell. The Mitchell Depot was neglected for years, but the town restored it and use it as a museum of local history and visitors center. The structure is characteristic of the time with timbers of heart pine. The town of Mitchell and the Mitchell Depot were named for R. M. Mitchell, President of the Augusta Southern Railroad. Request for nomination was based on these factors: 1-History, 2-Architecture, 3-Connection with a prominent person.

7) Euphratus Primitive Baptist Church, in vicinity of Edge Hill, listed in Glascock County Historic Resources Survey #116

Frame church of weatherboard, built in 1873, covered with synthetic siding, is located near the Jules Wilcher Plantation. His brother, William G. Wilcher, is listed among the original members. The Honorable Jeremiah C. A. Wilcher, a Georgia Representative, married Sara Sallie Madison Wilcher shortly after the Civil War. She was born in Virginia and came to teach in Rockmart, Georgia, where she met and married her husband. She began teaching in Glascock County in a log cabin and was given the honor of naming Edge Hill after a community in her native state. Sara was given the name Madison to note her relationship with the fourth president of the United States, James Madison. Request is made for nomination based on these factors: 1-History, 2-Architecture, 3-Connection with prominent citizens.

8) Logue-Knighton Place

Originally known as the Henry Logue Place, and later the home of local historian, Rebecca and husband, Clarence Knighton. It had a rear addition and synthetic siding put over the exterior. The house was originally a log cabin built in the early 1800s. It consisted of a central hall with two rooms opening onto a recessed front porch. Hand cut ironstone chimneys were on either end outside the cabin. These have deteriorated and been removed through the years. There is one fireplace remaining located on the east side of the original building. The hand hewn logs are apparent in the second floor, originally intended for living quarters, but unfinished and now used as an attic. The second floor logs are 12x12 inches, square notched and pegged. The most interesting feature of the second floor is two windows with a balcony structure around the chimney that looked out to the east. There is no stairway to the second floor attic. Later, rooms were added to the house as the family grew. The front door had side lights. The house is finished inside with 12-inch, heart pine flush boards. The original rooms have a chair rail and wainscoting. The house and the kitchen were at one time connected by a breezeway but in later years this breezeway was enclosed.

There are two outbuildings, a smoke house and a three sided shed-type barn. Two original twisted cedar trees are indicative of a simple farm home in early Glascock County. Request for nomination were based on these factors: 1-Architecture 2-History with possible connection to Calvin Logue who donated twenty acres of land upon which the Town of Gibson was built.

9) Usry Mill, in the county, listed in Glascock County Historic Resources Survey #92

Built circa late 19th-early 20th centuries, this mill was used by local farmers to grind corn and make flour and meal. Located on a large pond, this was an active recreational area.

10) Hardin Log Cabin, in Glascock County

This small log cabin is owned by Kenneth Hardin and was rehabilitated by him. Located in the Bethel Community, the log house was built in the early 1800s. Reason for nomination: 1-Architecture, 2-History.

11) Hadden Log House, in northeast Glascock County

The log house is owned by Betty and Everett Hadden. The original owners were the grandparents of Betty H. Hadden. The original structure was built in Jefferson County in 1857-58. Additions were stripped away and the log house moved for restoration to Glascock County. Request for nomination: 1-Architecture 2-History.

12) Gibson Historic District (called a multiple property nomination)

The contiguous cluster of historic buildings that form the center core of the city of Gibson are eligible for National Register nomination as a historic district. The types of buildings to be included in the district are the original courthouse square, artesian well, police station, commercial buildings, residences, institutional, religious, and other significant historic structures.

13) Mitchell Historic District (called a multiple property nomination)

The contiguous cluster of historic buildings that form the center core of the City of Mitchell are eligible for National Register nomination as a historic district. The types of buildings to be included in the district are the railroad depot, commercial, residential, institutional, religious and other significant historic structures.

Glascock County

Georgia Area Labor Profile

Updated: Jul 2021

Labor Force Activity - 2020

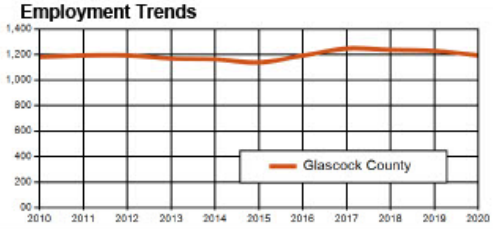
2020 ANNUAL AVERAGES

	Labor Force	Employed	Unemployed	Rate
Glascock	1,244	1,193	51	4.1%
Hancock	2,532	2,309	223	8.8%
Jefferson	6,658	6,209	449	6.7%
Warren	2,635	2,456	179	6.8%
Washington	6,931	6,486	445	6.4%
Glascock Area	**20,000**	**18,653**	**1,347**	**6.7%**
Georgia	5,072,155	4,741,191	330,964	6.5%
United States	160,742,000	147,795,000	12,947,000	8.1%

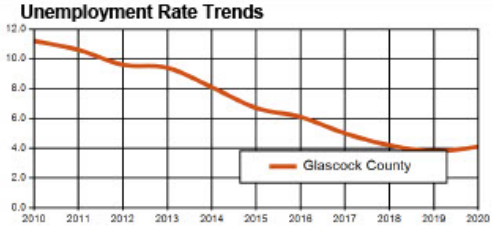
Note: This series reflects the latest information available. Labor Force includes residents of the county who are employed or actively seeking employment.

Source: Georgia Department of Labor; U.S. Bureau of Labor Statistics.

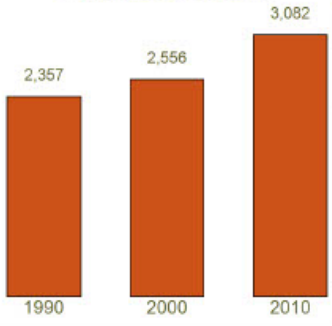
Employment Trends



Unemployment Rate Trends



Population Estimates



Population

	2010 Census	2020 Rank	2020 Estimate	% Change 2010-2020	2025 Projected*	% Change 2010-2025
Glascock	**3,082**	**154**	**2,984**	**-3.2**	**2,895**	**-6.1**
City of Gibson	663					
Glascock Area	**56,462**		**52,127**	**-7.7**	**51,506**	**-8.8**
Georgia	9,687,653		10,710,017	10.6	11,335,283	17.0
United States	308,745,538		329,484,123	6.7	349,439,199	13.2

Source: Population Division, U.S. Census Bureau, *Governor's Office of Planning and Budget.

MARK BUTLER - COMMISSIONER, GEORGIA DEPARTMENT OF LABOR
Equal Opportunity Employer/Program
Auxiliary Aids and Services Available upon Request to Individuals with Disabilities

Workforce Statistics & Economic Research; E-mail: Workforce_Info@gdol.ga.gov Phone: (404) 232-3875

Industry Mix - Annual averages of 2020

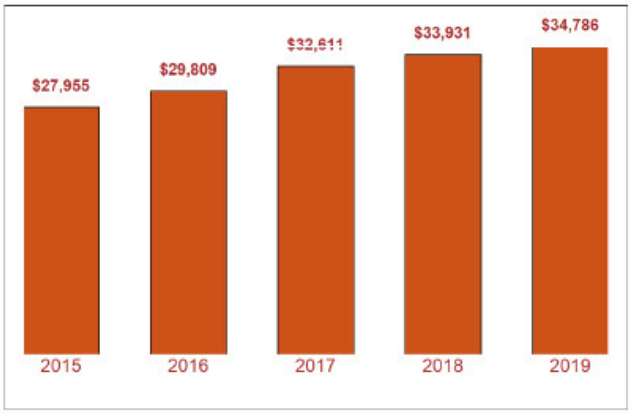
	Glascock				Glascock Area			
	NUMBER	EMPLOYMENT		WEEKLY	NUMBER	EMPLOYMENT		WEEKLY
INDUSTRY	OF FIRMS	NUMBER	PERCENT	WAGE	OF FIRMS	NUMBER	PERCENT	WAGE
Goods-Producing	**5**	**65**	**16.4**	**824**	**205**	**3,739**	**26.8**	**996**
Agriculture, Forestry, Fishing and Hunting	3	*	*	*	51	412	3.0	848
Mining, Quarrying, and Oil and Gas Extraction	0	0	0.0	0	17	549	3.9	1,243
Construction	2	*	*	*	76	645	4.6	882
Manufacturing	0	0	0.0	0	61	2,134	15.3	995
Miscellaneous	0	0	0.0	0	1	*	*	*
Electrical Equipment, Appliance, and Component	0	0	0.0	0	1	*	*	*
Paper	0	0	0.0	0	1	*	*	*
Computer and Electronic Product	0	0	0.0	0	1	*	*	*
Plastics and Rubber Products	0	0	0.0	0	2	*	*	*
Transportation Equipment	0	0	0.0	0	3	*	*	*
Chemical	0	0	0.0	0	3	*	*	*
Printing and Related Support Activities	0	0	0.0	0	3	6	0.0	394
Food	0	0	0.0	0	4	*	*	*
Furniture and Related Product	0	0	0.0	0	5	28	0.2	884
Machinery	0	0	0.0	0	6	110	0.8	1,107
Nonmetallic Mineral Product	0	0	0.0	0	6	554	4.0	1,023
Fabricated Metal Product	0	0	0.0	0	10	185	1.3	822
Wood Product	0	0	0.0	0	15	774	5.5	1,080
Service-Providing	**22**	**150**	**37.8**	**551**	**680**	**6,304**	**45.1**	**736**
Utilities	0	0	0.0	0	5	164	1.2	1,497
Wholesale Trade	1	*	*	*	35	282	2.0	805
Retail Trade	6	30	7.6	381	173	1,506	10.8	458
Transportation and Warehousing	4	7	1.8	724	46	743	5.3	991
Information	0	0	0.0	0	9	48	0.3	629
Finance and Insurance	1	*	*	*	45	299	2.1	1,140
Real Estate and Rental and Leasing	1	*	*	*	28	79	0.6	686
Professional, Scientific, and Technical Services	3	7	1.8	780	38	218	1.6	1,224
Management of Companies and Enterprises	0	0	0.0	0	5	485	3.5	1,478
Administrative and Support and Waste Management and Remediation Services	0	0	0.0	0	30	335	2.4	569
Educational Services	0	0	0.0	0	6	165	1.2	519
Health Care and Social Assistance	3	*	*	*	76	997	7.1	689
Arts, Entertainment, and Recreation	1	*	*	*	5	20	0.1	337
Accommodation and Food Services	2	*	*	*	65	711	5.1	278
Other Services (except Public Administration)	0	0	0.0	0	66	231	1.7	639
Unclassified - industry not assigned	**1**	*	*	*	**48**	**27**	**0.2**	**722**
Total - Private Sector	**28**	**216**	**54.4**	**636**	**885**	**10,043**	**71.9**	**832**
Total - Government	**11**	**181**	**45.6**	**534**	**132**	**3,923**	**28.1**	**678**
Federal Government	2	4	1.0	622	29	152	1.1	872
State Government	4	6	1.5	837	50	1,077	7.7	676
Local Government	5	171	43.1	521	53	2,694	19.3	668
ALL INDUSTRIES	**39**	**397**	**100.0**	**589**	**1,017**	**13,966**	**100.0**	**789**
ALL INDUSTRIES - Georgia					**320,152**	**4,308,816**		**1,132**

Note: *Denotes confidential data relating to individual employers and cannot be released. These data use the North American Industrial Classification System(NAICS) categories. Average weekly wage is derived by dividing gross payroll dollars paid to all employees - both hourly and salaried - by the average number of employees who had earnings; average earnings are then divided by the number of weeks in a reporting period to obtain weekly figures. Figures in other columns may not sum accurately due to rounding. All figures are annual averages of 2020.

Source: Georgia Department of Labor. These data represent jobs that are covered by unemployment insurance laws.

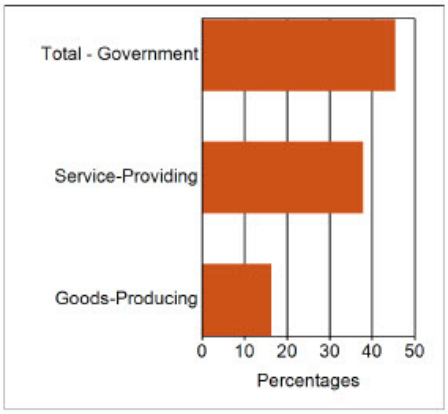
Glascock Per Capita Income

Source: U.S. Bureau of Economic Analysis



Glascock Industry Mix 2020

Source: See Industry Mix data on Page 2.



Top Ten Largest Employers - 2020*

Glascock

Cross Cut Controls, Inc.
Dollar General
Duffie Construction Contractors, Inc.
Gibson Health & Rehabilitation
Hometown Market & Meat, LLC
Jet Food Store
Pulliam Lumber Co, Inc.
R And R Seeds, Inc.
Raley'S Restaurant, LLC
Scotts Place, LLC

*Note: Represents employment covered by unemployment insurance excluding all government agencies except correctional institutions, state and local hospitals, state colleges and universities. Data shown for the Fourth Quarter of 2020. Employers are listed alphabetically by area, not by the number of employees.

Source: Georgia Department of Labor

Glascock Area

	COUNTY
Battle Lumber Co, Inc.	Jefferson
Coastal Processing, LLC	Jefferson
Georgia Department of Corrections	Hancock
Georgia Department of Corrections	Washington
Georgia-Pacific Wood Products, LLC	Warren
Howard Sheppard, Inc.	Washington
Oconee Fall Line Technical College	Washington
SGD Manufacturing, Inc.	Hancock
Thiele Kaolin Co	Washington
Walmart	Washington

Education of the Labor Force

Glascock Area

	PERCENT OF TOTAL	PERCENT DISTRIBUTION BY AGE				
		18-24	25-34	35-44	45-64	65+
Elementary	10.8%	4.6%	6.4%	6.5%	8.0%	27.9%
Some High School	17.3%	23.5%	16.4%	15.3%	16.1%	18.1%
High School Grad/GED	43.1%	42.7%	43.1%	45.2%	48.2%	31.7%
Some College	16.8%	25.9%	21.1%	16.8%	14.8%	11.3%
College Grad 2 Yr	3.5%	1.0%	5.0%	4.6%	3.7%	2.5%
College Grad 4 Yr	5.9%	2.4%	6.0%	8.8%	5.7%	5.8%
Post Graduate Studies	2.6%	0.0%	2.0%	2.9%	3.6%	2.8%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Totals are based on the portion of the labor force between ages 18 - 65+. Some College category represents workers with some college with no degree less than two years.

Source: U.S. Census Bureau - 2010 Decennial Census.

High School Graduates - 2020

	PUBLIC SCHOOLS	PRIVATE SCHOOLS*	TOTAL
Glascock	35	--	35
Hancock	54	--	54
Jefferson	180	--	180
Warren	40	--	40
Washington	196	--	196
Glascock Area	**505**	--	**505**

Note: Public schools include city as well as county schools systems.

* Private schools data is not available for 2020 from Georgia Independent School Association.

Source: The Governor's Office of Student Achievement of Georgia.

Colleges and Universities

Glascock Area

Washington

Georgia Military College (Sandersville Campus)	www.gmc.edu/about-gmc/sandersville.cms
Oconee Fall Line Technical College	www.oftc.edu
Transportation Center (Satellite campus of Oconee Fall Line Technical College)	www.oftc.edu

Hancock

Hancock County Center (Satellite campus of Oconee Fall Line Technical College)	www.oftc.edu

Jefferson

Jefferson County Center (Satellite campus of Oconee Fall Line Technical College)	www.oftc.edu

Note: The colleges and universities listed include public and private institutions. This list is updated periodically as information becomes available.

Source: Integrated Postsecondary Education Data System (IPEDS).

Technical College Graduates - 2020*

PROGRAMS	TOTAL GRADUATES			PERCENT CHANGE	
	2018	2019	2020	2018-2019	2019-2020
Accounting Technology/Technician and Bookkeeping°	20	85	57	325.0	-32.9
Administrative Assistant and Secretarial Science, General	17	23	9	35.3	-60.9
Allied Health and Medical Assisting Services, Other°	44	71	58	61.4	-18.3
Automobile/Automotive Mechanics Technology/Technician°	2	17	18	750.0	5.9
Business Administration and Management, General	17	25	25	47.1	0.0
Business Administration, Management and Operations, Other	5	3	2	-40.0	-33.3
Child Care Provider/Assistant°	56	46	71	-17.9	54.3
Computer Installation and Repair Technology/Technician°	24	26	17	8.3	-34.6
Cosmetology/Cosmetologist, General°	35	46	37	31.4	-19.6
Criminal Justice/Safety Studies°	11	24	26	118.2	8.3
Customer Service Support/Call Center/Teleservice Operation °	4	4	2	0.0	-50.0
Data Processing and Data Processing Technology/Technician°	66	44	60	-33.3	36.4
Diesel Mechanics Technology/Technician°	22	54	15	145.5	-72.2

Technical College Graduates - 2020*

PROGRAMS	TOTAL GRADUATES			PERCENT CHANGE	
	2018	2019	2020	2018-2019	2019-2020
Early Childhood Education and Teaching	8	8	21	0.0	162.5
Electrical/Electronics Equipment Installation and Repair, General	4	2	6	-50.0	200.0
Emergency Medical Technology/Technician (EMT Paramedic)°	5	5	2	0.0	-60.0
General Office Occupations and Clerical Services°	20	9	15	-55.0	66.7
Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/°	25	18	21	-28.0	16.7
Industrial Mechanics and Maintenance Technology°	25	25	40	0.0	60.0
Licensed Practical/Vocational Nurse Training	33	32	31	-3.0	-3.1
Machine Shop Technology/Assistant°	8	2	7	-75.0	250.0
Medical Insurance Specialist/Medical Biller°	10	11	4	10.0	-63.6
Medical Office Assistant/Specialist°	19	22	33	15.8	50.0
Medical/Clinical Assistant	17	13	18	-23.5	38.5
Medical/Health Management and Clinical Assistant/Specialist °	16	12	15	-25.0	25.0
Medium/Heavy Vehicle and Truck Technology/Technician°	27	38	56	40.7	47.4
Network and System Administration/Administrator°	6	14	14	133.3	0.0
Nursing Assistant/Aide and Patient Care Assistant/Aide°	105	134	83	27.6	-38.1
Pharmacy Technician/Assistant	8	6	7	-25.0	16.7
Radiologic Technology/Science - Radiographer	8	7	7	-12.5	0.0
Respiratory Care Therapy/Therapist	15	10	10	-33.3	0.0
Teacher Assistant/Aide°	1	1	2	0.0	100.0
Truck and Bus Driver/Commercial Vehicle Operator and Instructor°	89	127	111	42.7	-12.6
Welding Technology/Welder°	193	265	216	37.3	-18.5

Definition: All graduates except those listed as technical certificates(°) are diploma and degree graduates. Diploma and degree programs are one to two years in length. Technical certificates are less than a year in length. Duplication may occur due to graduates with multiple awards.

Source: Technical College System of Georgia

*Data shown represents Annual 2018, 2019, and 2020.

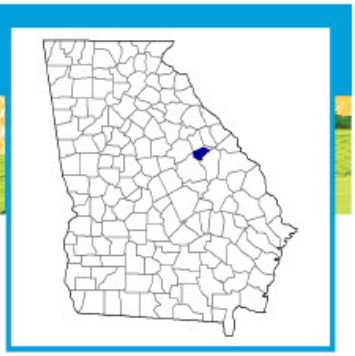
Note: Please visit TCSG website for any college configuration changes.

Georgia Department of Labor Location(s)

Career Center(s)
601 Greene Street
Augusta, GA 30901
Phone: (706) 721 - 3131 **Fax:** (706) 721 - 7680

For copies of Area Labor Profiles, please visit our website at: http://dol.georgia.gov or contact Workforce Statistics & Economic Research, Georgia Department of Labor, 148 Andrew Young International Blvd N.E. Atlanta, GA. 30303-1751. Phone: 404-232-3875; Fax: 404-232-3888 or Email us at workforce_info@gdol.ga.gov

2017 CENSUS OF AGRICULTURE *County Profile*



Glascock County
Georgia

Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	76	-21
Land in farms (acres)	21,472	-11
Average size of farm (acres)	283	+13
Total	($)	
Market value of products sold	2,048,000	-39
Government payments	187,000	+17
Farm-related income	127,000	-45
Total farm production expenses	2,663,000	-24
Net cash farm income	-302,000	-207
Per farm average	($)	
Market value of products sold	26,951	-23
Government payments (average per farm receiving)	10,364	+55
Farm-related income	5,773	-60
Total farm production expenses	35,044	-3
Net cash farm income	-3,968	-235

(Z) Percent of state agriculture sales

Share of Sales by Type (%)

Crops	82
Livestock, poultry, and products	18

Land in Farms by Use (%) [a]

Cropland	28
Pastureland	10
Woodland	46
Other	16

Acres irrigated: (D)

(D)% of land in farms

Land Use Practices (% of farms)

No till	14
Reduced till	4
Intensive till	21
Cover crop	13

Farms by Value of Sales

	Number	Percent of Total [a]
Less than $2,500	52	68
$2,500 to $4,999	5	7
$5,000 to $9,999	1	1
$10,000 to $24,999	7	9
$25,000 to $49,999	4	5
$50,000 to $99,999	2	3
$100,000 or more	5	7

Farms by Size

	Number	Percent of Total [a]
1 to 9 acres	6	8
10 to 49 acres	21	28
50 to 179 acres	17	22
180 to 499 acres	10	13
500 to 999 acres	19	25
1,000 + acres	3	4

USDA
United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

2017 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [b]	Counties Producing Item	Rank in U.S. [b]	Counties Producing Item
Total	**2,048**	**147**	**159**	**2,965**	**3,077**
Crops	**1,679**	**121**	**159**	**2,721**	**3,073**
Grains, oilseeds, dry beans, dry peas	347	88	148	2,323	2,916
Tobacco	-	-	25	-	323
Cotton and cottonseed	860	67	90	442	647
Vegetables, melons, potatoes, sweet potatoes	(D)	127	157	(D)	2,821
Fruits, tree nuts, berries	(D)	(D)	158	(D)	2,748
Nursery, greenhouse, floriculture, sod	-	-	138	-	2,601
Cultivated Christmas trees, short rotation woody crops	-	-	64	-	1,384
Other crops and hay	432	115	155	2,392	3,040
Livestock, poultry, and products	**369**	**146**	**159**	**2,931**	**3,073**
Poultry and eggs	(D)	151	158	(D)	3,007
Cattle and calves	335	124	158	2,594	3,055
Milk from cows	-	-	64	-	1,892
Hogs and pigs	(D)	(D)	129	(D)	2,856
Sheep, goats, wool, mohair, milk	5	121	153	2,458	2,984
Horses, ponies, mules, burros, donkeys	(D)	71	145	(D)	2,970
Aquaculture	-	-	54	-	1,251
Other animals and animal products	(D)	101	141	1,784	2,878

Total Producers [c]	**131**
Sex	
Male	93
Female	38
Age	
<35	10
35 – 64	63
65 and older	58
Race	
American Indian/Alaska Native	-
Asian	-
Black or African American	-
Native Hawaiian/Pacific Islander	-
White	131
More than one race	-
Other characteristics	
Hispanic, Latino, Spanish origin	-
With military service	21
New and beginning farmers	48

Percent of farms that:

Have internet access	**87**
Farm organically	**-**
Sell directly to consumers	**1**
Hire farm labor	**26**
Are family farms	**91**

Top Crops in Acres [d]

Forage (hay/haylage), all	1,380
Cotton, all	1,156
Wheat for grain, all	1,045
Soybeans for beans	565
Peanuts for nuts	289

Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens	(D)
Cattle and calves	1,103
Goats	264
Hogs and pigs	24
Horses and ponies	79
Layers	136
Pullets	-
Sheep and lambs	(D)
Turkeys	-

See 2017 Census of Agriculture, U.S. Summary and State Data, for complete footnotes, explanations, definitions, commodity descriptions, and methodology.

[a] May not add to 100% due to rounding. [b] Among counties whose rank can be displayed. [c] Data collected for a maximum of four producers per farm. [d] Crop commodity names may be shortened; see full names at www.nass.usda.gov/go/cropnames.pdf. [e] Position below the line does not indicate rank. (D) Withheld to avoid disclosing data for individual operations. (NA) Not available. (Z) Less than half of the unit shown. (-) Represents zero.

APPENDIX C

OTHER PLANNING DOCUMENTS

Glascock County Emergency Management Agency

Emergency Operations Plan

Plan Approved:
04-FEB-16

Revised:
04-FEB-16

Local Resolution

ORDINANCE REGARDING EMERGENCY MANAGEMENT

WHEREAS, O.C.G.A. §§ 38-3-27 through 38-3-28 and 38-3-54 through 38-3-56 authorizes the Glascock County Board of Commissioners to provide emergency management within Glascock County.

WHEREAS, the Georgia Emergency Management Agency (GEMA) is the state agency assigned responsibility for coordination of all organization for emergency management activities within the state;

WHEREAS, Glascock County Emergency Management Agency is an established emergency management agency; and

WHEREAS, to ensure an effective and coordinated response to disasters, the County wishes to coordinate EMA activities and responses with cities located within the County; and

WHEREAS, the Board of Commissioners believes that an ordinance should be adopted to protect the health and safety of persons and property during an emergency or disaster resulting from manmade or natural causes.

NOW, THEREFORE, BE IT ORDAINED that the Code of Ordinances for Glascock County be amended by creating a new Chapter Glascock County Emergency Management to read as follows:

Chapter Glascock County Emergency Management

Section 1. Definitions. as used in this ordinance, the following terms

(a) **"Locally Declared Emergencies."** as used in this ordinance, a "locally declared emergency" or a "declaration of local emergency" shall mean a declaration by the Chair of the Board of Commissioners enacting some or all of the local emergency powers addressed in this ordinance.

(b) **"State Declared Emergencies."** as used in this ordinance, a "state declared emergency" or a "state of emergency" shall mean a declaration by the Governor of an actual or impending emergency or disaster of natural or human origin, or pandemic influenza emergency, or impending or actual enemy attack, or a public health emergency, within or affecting Georgia or against the United States. A declaration of emergency by the Governor may enact some or all of the emergency powers, local or otherwise, addressed in this ordinance.

Section 2. Emergency Management and Response Powers

(a) Declaration of local emergency.

(i) **Grant of authority.** In the event of an actual or threatened occurrence of a disaster or emergency, which may result in the large-scale loss of life, injury, property damage or destruction or in the major disruption of routine community affairs, business or governmental operations in the County and which is of sufficient severity and magnitude to warrant extraordinary assistance by federal, state and local departments and agencies to supplement the efforts of available public and private resources, the Chair of the Board of Commissioners may declare a local emergency for

(ii) **Request for state assistance.** Consistent with a declaration of local emergency, the Chair may request the Governor to provide assistance, provided that the disaster or emergency is beyond the capacity of the County to meet adequately and state assistance is necessary to supplement local efforts to save lives and protect property, public health and safety, or to avert or lessen the threat of a disaster.

(ii) **Continuance.** The declaration of local emergency shall continue until the Chair finds that emergency conditions no longer exist, at which time, the Chair shall execute and file with the Clerk of the Board of Commissioners a document marking the end of the emergency. No state of local emergency shall continue for longer than 30 days, unless renewed by the Chair. The Board of Commissioners may, by resolution, end a state of local emergency at any time.

(iii) **Effect of declaration of emergency.**

(a) **Activation of emergency operations plan.** a declaration of emergency by the Governor or a declaration of local emergency by the Chair shall automatically activate the County emergency operations plan and shall be the authority for deployment of personnel and use of any forces to which the plan applies and for use or distribution of any supplies, equipment, materials, and facilities assembled, stockpiled or arranged to be made available pursuant to the Georgia Emergency management act or any other laws applicable to emergencies or disasters.

(1) The Glascock County Emergency Management Agency ("EMA") Director shall have the legal authority to exercise the powers and discharge the duties conferred upon the Emergency Management Agency, including the implementation of the emergency operations plan, coordination of the emergency responses of public and private agencies and organizations, coordination of recovery efforts with state and federal officials, and inspection of emergency or disaster sites.

(2) In responding to the emergency and conducting necessary and appropriate survey of the damages caused by the emergency, the Director or his/her designee is authorized to enter at a reasonable time upon any property, public or private, for the purpose of evaluating sites involved with emergency management functions to protect the public's health, safety or welfare.

(3) The Director is authorized to execute a right of entry and/or agreement to use property for these purposes on behalf of the County; however, any such document shall be later presented for ratification at a meeting of the Board of Commissioners.

(4) No person shall refuse entry or access to any authorized representative or agent of the County who requests entry for

purposes of evaluating sites involved with emergency management functions to protect the public's health, safety, or welfare, and who presents appropriate credentials. Nor shall any person obstruct, hamper, or interfere with any such representative while that individual is in the process of carrying out his or her official duties.

(b) **Emergency powers.** Following a declaration of emergency and during the continuance of such state of emergency, the Chair is authorized to implement local emergency measures to protect life and property or to bring the emergency situation under control.

(1) **State Declared state of emergency.** if the Governor declares a state of emergency for the County, the Chair may cause the following provisions of this ordinance to become effective:

(a) Section 4, authority to Waive Procedures and Fee Structures;
(b) Section 5, registration of Building and repair Services; and/or
(c) Section 6, closed or restricted areas and curfews.

(2) **Locally Declared state of emergency.** if the Chair declares a local emergency for the County, the Chair may cause the following provisions of this ordinance to become effective:

(a) Section 4, authority to Waive Procedures and Fee Structures; and/or
(b) Section 6, closed or restricted areas and curfews.

if any of these sections are included in a declaration of local emergency, the same shall be filed in the office of the Clerk of the Board of Commissioners and shall be in effect until the declaration of local emergency has terminated.

(C) **Authority to waive procedures and fees.** Pursuant to a declaration of emergency, the Board of Commissioners is authorized to cause to be effective any of the subsections of Section 4 of this chapter as appropriate. The implementation of such subsections shall be filed in the office of the clerk of the Board of Commissioners.

(D) **Additional emergency powers.** the Chair of the Board of Commissioners shall have, and may exercise for such period as the declared emergency exists or continues, the following additional emergency powers:

(1) to direct and compel the evacuation of all or part of the population from any stricken or threatened area, for the preservation of life or other disaster mitigation, response or recovery;

(2) to prescribe routes, modes of transportation and destinations in connection with evacuation;

(3) to make provision for the availability and use of temporary emergency housing, emergency shelters and/or emergency medical shelters;

(4) to transfer the direction, personnel or functions of any County departments for the purpose of performing or facilitating emergency services;

(5) to utilize all available resources of the County and subordinate agencies over which the County has budgetary control as reasonably necessary to cope with the emergency or disaster;

(6) to utilize public property when necessary to cope with the emergency or disaster or when there is compelling necessity for the protection of lives, health, and welfare, and/or the property of citizens;

(7) to suspend any ordinance, resolution, order, rules or regulation prescribing the procedures for conduct of County business, or the orders, rules or regulations of any County department, if strict compliance with any ordinance, resolution, order, rule or regulation would in any way prevent, hinder or delay necessary action in coping with the emergency or disaster, provided that such suspension shall provide for the minimum deviation from the requirements under the circumstances and further provided that, when practicable, specialists shall be assigned to avoid adverse effects resulting from such suspension;

(8) to provide benefits to citizens upon execution of an intergovernmental agreement for grants to meet disaster-related necessary expenses or serious needs of individuals or families adversely affected by an emergency or disaster in cases where the individuals or families are unable to meet the expenses or needs from other means, provided that such grants are authorized only when matching state or federal funds are available for
such purposes;

(9) to perform and exercise such other functions, powers, and duties as may be deemed necessary to promote and secure the safety and protection of the civilian population, including individuals with household pets and service animals prior to, during, and following a major disaster or emergency.

(b) **Form of Declaration of Local Emergency.** Upon the declaration of local emergency, an official "Declaration of Local Emergency," in substantially the same form set forth below, shall be signed and filed in the office of the County Clerk and shall be communicated to the citizens of the affected area using the most effective and efficient means available. The declaration shall state the nature of the emergency or disaster, the conditions that require the declaration and any sections of this chapter that shall be in effect.

DECLARATION OF LOCAL EMERGENCY

WHEREAS, Glascock County, Georgia has experienced an event of critical significance as a result of *[description of event]* on *[Date]*;

WHEREAS, the Governor *has/has not* declared a state of emergency for Glascock County;

WHEREAS, in the judgment of the Chair of the Glascock County Board of Commissioners, with advice from the Glascock County Emergency Management Agency, there exist emergency circumstances located in *[describe geographic location]* requiring extraordinary and immediate corrective actions for the protection of the health, safety, and welfare of the citizens of
Glascock County, including individuals with household pets and service animals; and

WHEREAS, to prevent or minimize injury to people and damage to property resulting from this event, certain actions are required

NOW, THEREFORE, pursuant to the authority vested in me by local and state law;

IT IS HEREBY DECLARED that a local state of emergency exists and shall continue until the conditions requiring this declaration are abated.

THEREFORE IT IS ORDERED:

(1) that the Glascock County Emergency Management Agency activates the Emergency operations Plan;

(2) that the following sections of the Glascock County code be implemented *[If deemed appropriate, choose from the following]*:

_____Section 4 authority to Waive Procedures and Fee Structures

_____Section 5 registration of Building and repair Services (to be effective only if the Governor declares a state of emergency)

_____Section 6 closed or restricted areas and curfews

_____Section _____ *[Any other emergency management ordinances, such as an emergency purchasing ordinance, etc.]*

(3) that the following measures also be implemented: _____

_____

[If deemed appropriate, select items from Section 2(a)(iv)(C) or (D) or such other measures as appropriate.]

ENTERED at *[time]* on *[Date]* 7:00 P.M. 5/5/15

[Signed] Chalker

Chair, Glascock County Board of Commissioners"

(c) Contracts with Municipalities. in addition to the normal agreements embodied in the County's emergency operations plan for mutual emergency assistance, the Board of Commissioners may contract with any municipality for the administration of an emergency response program.

Section 3. Enforcement and Remedies

(a) Law Enforcement. In accordance with O.C.G.A. § 38-3-4, the County Sheriff's Office shall be authorized to enforce the orders, rules and regulations contained in this ordinance and/or implemented by the Chair or Board of Commissioners during a declared emergency.

(b) **Penalties.** Failure to comply with any of the requirements or provisions of the regulations contained in this ordinance, or with any code section, order, rule or regulation made effective by the Chair or Board of Commissioners upon or after the declaration of an emergency shall constitute a violation of the provisions of this Ordinance. Any person who violates any provision in this ordinance shall, upon conviction thereof, be guilty of a misdemeanor

punishable by a fine not exceeding $1,000, imprisonment for a term not exceeding 60 days, or both such fine and imprisonment, for each violation. Each person assisting in the commission of a violation shall be guilty of separate offenses. Each day during which a violation or failure to comply continues shall constitute a separate violation.

(c) **Injunctive Relief.** In accordance with O.C.G.A. § 38-3-5, in addition to the remedies prescribed in this section, the Ema Director is authorized to obtain an injunction to restrain violation of laws, code sections, orders, rules and regulations that are contained in the Georgia Emergency Management Act and/or this ordinance, and/or are implemented by the Board of Commissioners during a declared emergency.

(d) **Enforcement.** Except as otherwise provided in this chapter, this ordinance may be enforced by the Sheriff's Office, the EMA Director and

Section 4. Authority to Waive Procedures and fee structures

(a) **County Business.** Upon declaration of an emergency or disaster by the Governor or Chair of the Board of Commissioners, the affairs and business of the County may be conducted at places other than the regular or usual location, within or outside of the County, when it is not prudent, expedient or possible to conduct business at the regular location. When such meetings occur outside of the County, all actions taken by the Board of Commissioners shall be as valid and binding as if performed within the County. Such meetings may be called by the presiding officer or any two members of the Board of Commissioners without regard to or compliance with time-consuming procedures and formalities otherwise required by law.

(b) **Public Works Contracts.** Upon declaration of an emergency or disaster by the Governor or Chair of the Board of Commissioners, the Board of Commissioners may contract for public works without letting such contract out to the lowest, responsible bidder and without advertising and posting notification of such contract for four weeks; provided, however, that the emergency must be of such nature that immediate action is required and that the action is necessary for the protection of the public health, safety and welfare. Any public works contract entered into pursuant to this subsection shall be entered on the minutes of the County as soon as practical and the nature of the emergency described therein in accordance with O.C.G.A. § 36-91-22(e). Any E-Verify or Systematic Alien Verification for Entitlements ("SAVE") affidavit shall be obtained from any contractor if otherwise required by law.

(c) **Purchasing.** Upon declaration of an emergency or disaster by the Governor or Chair of the Board of Commissioners, the purchasing ordinances, regulations, or policies may be suspended. County officials shall continue to seek to obtain the best prices during the state of local emergency.

(d) **Code enforcement.** Upon declaration of a state of emergency or disaster by the Governor or the Chair of the Board of Commissioners, the Board of Commissioners may temporarily suspend the enforcement of the ordinances of the County, or any portion thereof, where the emergency is of such nature that immediate action outside the code is required, such

suspension is consistent with the protection of the public health, safety and welfare, and such suspension is not inconsistent with any federal or state statutes or regulations.

(e) **Fees.** Upon declaration of a state of emergency or disaster by the Governor or the Chair of the Board of Commissioners, the Board of Commissioners may temporarily reduce or suspend any permit fees, application fees or other rate structures as necessary to encourage the rebuilding of the areas impacted by the disaster or emergency. The term "fees" include fees or rates charged by the County for building permits, land disturbance permits, zoning applications, special land use permits, temporary land use permits and other fees relating to the reconstruction, repair and clean up of areas impacted by the disaster or emergency. The term "fees" does not include fees collected by the County on behalf of the state or federal government or fees charged by the County pursuant to a state or federal statute or regulation.

(f) **Temporary Dwellings.** Upon the declaration of a state of emergency or disaster by the Governor or Chair of the Board of Commissioners, the Board of Commissioners or its designees may issue temporary permits for mobile homes, trailers, recreational vehicles or other temporary dwelling structures or parks in any zoning district, even though not otherwise permitted by development code, while the primary dwelling is being repaired, provided that such temporary dwellings or parks
parks are designed by an engineer and the plans are approved by the County Health Department and Development Services. The temporary permit shall not exceed six months in duration. In the case of a continuing hardship, and in the discretion of the Board of Commissioners or its designee, the permit may be extended for a period of up to an additional six months. Upon expiration of the temporary permit and/or extension, the temporary dwelling must be removed.

Section 5. Registration of building and Repair services

(a) In accordance with O.C.G.A. § 38-3-56, before building, constructing, repairing, renovating or making improvements to any real property, including dwellings, homes, buildings, structures or fixtures within an area in the unincorporated area of the County designated in a declared emergency or disaster, any person, firm, partnership, corporation or other entity must register with the Glascock County Development Services Department and secure a building permit that is posted at the work site. Each day any such entity does business in the unincorporated areas of the County without complying with this ordinance constitutes a separate offense.

(b) the cost of registration fees in a declared emergency or disaster is fixed at $_____ per annum. Registration is nontransferable. The cost of the emergency building permit shall be equal to the cost for a building permit under existing regulations the permit shall only be authorized for repairs. When registering, any person, partnership, corporation or other entity making application must, under oath, complete an application, providing the following information:

(i) name of applicant;

(ii) Permanent address and phone number of applicant;

(iii) Applicant's Social Security number or federal Employer Identification number;

(iv) if applicant is a corporation, the state and Date of incorporation;

(v) tag registration information for each vehicle to be used in the business;

(vi) List of cities and/or counties where the applicant has conducted business within the past 12 months;

(vii) Georgia sales tax number or authorization;

(viii) Georgia business license number, if required;

(ix) copy of license from the Secretary of State, if required;

(x) A signed and sworn affidavit verifying the applicant's legal presence in the United States as required by O.C.G.A. § 50-36-1.

(xi) At least one secure and verifiable document as defined in O.C.G.A. § 50-36-2.

(d) **Effective Date.** This section shall become effective only upon a declaration of emergency by the Governor and a local declaration stating this section is in effect. Unless otherwise specified in the declaration of emergency or otherwise extended by the Board of Commissioners, the provisions of this Code section shall remain in effect during the state of emergency and for a subsequent recovery period of three months.

Section 6. Closed or Restricted areas and Curfews during emergency

(a) To preserve, protect or sustain the life, health, welfare or safety of persons, or their property, within a designated area under a declaration of emergency, it shall be unlawful for any person to travel, loiter, wander or stroll in or upon the public streets, highways, roads, lanes, parks or other public grounds, public places, public buildings, places of amusement, eating places, vacant lots or any other place during a declared emergency between hours specified by the Chair until the curfew is lifted.

(c) To promote order, protect lives, minimize the potential for looting and other crimes, and facilitate recovery operations during an emergency, the Chair shall have discretion to impose re-entry restrictions on certain areas. The Chair shall exercise such discretion in accordance with the County emergency operations plan, which shall be followed during emergencies. the provisions of this section shall not apply to persons acting in the following capacities:

(i) authorized and essential law enforcement personnel;

(ii) authorized and essential health care providers;

(iii) authorized and essential personnel of the County;

(iv) authorized national guard or federal military personnel;

(v) Authorized and essential firefighters;

(vi) authorized and essential emergency response personnel;

(vii) authorized and essential personnel or volunteers working with or through the County Emergency Management Agency (Ema);

(viii) authorized and essential utility repair crews;

(ix) citizens seeking to restore order to their homes or businesses while on their own property or place of business;

(x) other authorized and essential persons as designated on a list compiled by EMA, the Director of Public Safety, and/or the Sheriff of the County.

(d) **Enforceability**. This section shall be enforced by officers of the law enforcement personnel approved to provide aid and assistance during the emergency nothing contained in this section shall prohibit a law enforcement officer from bringing other charges under state law.

(e) **Effective Date**. This section shall become effective only upon the signing of a declaration of emergency, stating this section is in effect.

Section 7. Regulations Continued in Effect

All ordinances, resolutions, motions, and orders pertaining to civil defense, emergency management and disaster relief that are not in conflict with this chapter are continued in full force and effect. Such ordinances, etc., are on file in the office of the County Clerk.

BE IT FURTHER ORDAINED that this ordinance shall become effective upon its approval.
So ordained this 5th day of May, 2015
Board of Commissioners of Glascock County, Georgia

attest:

County clerk

RECORD OF REVISIONS

Date	Author	Section	Detail
02-04-2016 10:00:02	Leanza	Plan Approved	
11-05-2015 04:54:52	Glascock	Local Resolution	
04-09-2015 01:12:48	Glascock	ESF 13	
04-09-2015 01:12:31	Glascock	ESF 14	
04-09-2015 01:12:13	Glascock	ESF 15	
12-11-2014 07:43:10	Glascock	Agencies	
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Distribution List

Agency	Number of Copies
American Red Cross	0
Augusta Richmond County Haz Mat	0
C and B Fosters	0
City of Edgehill	0
City of Gibson	0
City of Mitchell	0
Edgehill Fire Department	0
Edgehill Public works	0
Georgia Power Company	0
Georgia State Patrol	0
Gibson Public Works	0
Gibson- Glascock County Fire Department	0
Glascock County Board of Commissioners	0
Glascock County Board of Education	0
Glascock County Coroner	0
Glascock County DFACS	0
Glascock County EMA	0
Glascock County Extension Service	0
Glascock County Health Department	0
Glascock County Road department	0
Glascock County Sheriff department	0
Glascock County Tax Commissioner	0
Glascock County Transit	0
Jefferson Electric COOP	0
McDuffie County 911	0
McDuffie County 911	0
McDuffie County EMS	0
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Glascock County
EMERGENCY OPERATIONS PLAN

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PREFACE

This Emergency Operations Plan (EOP) describes the management and coordination of resources and personnel during periods of major emergency. This comprehensive local emergency operations plan is developed to ensure mitigation and preparedness, appropriate response and timely recovery from natural and man made hazards which may affect residents of Glascock County.

This plan supersedes the Emergency Operations Plan dated from old eLEOP. It incorporates guidance from the Georgia Emergency Management Agency (GEMA) as well as lessons learned from disasters and emergencies that have threatened Glascock County. The Plan will be updated at the latest, every four years. The plan:

- Defines emergency response in compliance with the State-mandated Emergency Operations Plan process.
- Establishes emergency response policies that provide Departments and Agencies with guidance for the coordination and direction of municipal plans and procedures.
- Provides a basis for unified training and response exercises.

The plan consists of the following components:

- The Basic Plan describes the structure and processes comprising a county approach to incident management designed to integrate the efforts of municipal governments, the private sector, and non-governmental organizations. The Basic Plan includes the: purpose, situation, assumptions, concept of operations, organization, assignment of responsibilities, administration, logistics, planning and operational activities.
- Appendices provide other relevant supporting information, including terms, definitions, and authorities.
- Emergency Support Function Annexes detail the missions, policies, structures, and responsibilities of County agencies for coordinating resource and programmatic support to municipalities during Incidents of Critical Significance.
- Support Annexes prescribe guidance and describe functional processes and administrative requirements necessary to ensure efficient and effective implementation of incident management objectives.
- Incident Annexes address contingency or hazard situations requiring specialized application of the EOP. The Incident Annexes describe the missions, policies, responsibilities, and coordination processes that govern the interaction of public and private entities engaged in incident management and emergency response operations across a spectrum of potential hazards. Due to security precautions and changing nature of their operational procedures, these Annexes, their supporting plans, and operational supplements are published separately.

The following is a summary of the 15 Emergency Support Functions:

1. *Transportation*: Support and assist municipal, county, private sector, and voluntary organizations requiring transportation for an actual or potential Incident of Critical Significance.

2. *Communications*: Ensures the provision of communications support to municipal, county, and private-sector response efforts during an Incident of Critical Significance.

3. *Public Works and Engineering*: Coordinates and organizes the capabilities and resources of the municipal and county governments to facilitate the delivery of services, technical assistance, engineering expertise, construction management, and other support to prevent, prepare for, respond to, and/or recover from an Incident of Critical Significance.

4. *Firefighting*: Enable the detection and suppression of wild-land, rural, and urban fires resulting from, or occurring coincidentally with an Incident of Critical Significance.

5. *Emergency Management Services*: Responsible for supporting overall activities of the County Government for County incident management.

6. *Mass Care, Housing and Human Services*: Supports County-wide, municipal, and non-governmental organization efforts to address non-medical mass care, housing, and human services needs of individuals and/or families impacted by Incidents of Critical Significance.

7. *Resource Support*: Supports volunteer services, County agencies, and municipal governments tracking, providing, and/or requiring resource support before, during, and/or after Incidents of Critical Significance.

8. *Public Health and Medical Services*: Provide the mechanism for coordinated County assistance to supplement municipal resources in response to public health and medical care needs (to include veterinary and/or animal health issues when appropriate) for potential or actual Incidents of Critical Significance and/or during a developing potential health and medical situation.

9. *Search and Rescue*: Rapidly deploy components of the National US Response System to provide specialized life-saving assistance to municipal authorities during an Incident of Critical Significance.

10. *Hazardous Materials*: Coordinate County support in response to an actual or potential discharge and/or uncontrolled release of oil or hazardous materials during Incidents of Critical Significance.

11. *Agriculture and Natural Resources*: supports County and authorities and other agency efforts to address: Provision of nutrition assistance; control and eradication of an outbreak of a highly contagious or economically devastating animal/zoonotic

disease; assurance of food safety and food security and; protection of natural and cultural resources and historic properties.

12. *Energy*: Restore damaged energy systems and components during a potential of actual Incident of Critical Significance.

13. *Public Safety and Security Services*: Integrates County public safety and security capabilities and resources to support the full range of incident management activities associated with potential or actual Incidents of Critical Significance.

14. *Long Term Recovery and Mitigation*: Provides a framework for County Government support to municipal governments, nongovernmental organizations, and the private sector designed to enable community recovery from the long-term consequences of an Incident of Critical Significance.

15. *External Affairs*: Ensures that sufficient County assets are deployed to the field during a potential or actual Incident of Critical Significance to provide accurate, coordinated, and timely information to affected audiences, including governments, media, the private sector, and the populace.

BASIC PLAN

I. INTRODUCTION

Summary

This plan establishes a framework for emergency management planning and response to: prevent emergency situations; reduce vulnerability during disasters; establish capabilities to protect residents from effects of crisis; respond effectively and efficiently to actual emergencies; and provide for rapid recovery from any emergency or disaster affecting the local jurisdiction and Glascock County.

This Emergency Operations Plan (EOP) is predicated on the National Incident Management System (NIMS) which integrates the capabilities and resources of various municipal jurisdictions, incident management and emergency response disciplines, nongovernmental organizations (NGOs), and the private sector into a cohesive, coordinated, and seamless framework for incident management. The EOP, using the NIMS, is an all-hazards plan that provides the structure and mechanisms for policy and operational coordination for incident management. Consistent with the model provided in the NIMS, the EOP can be partially or fully implemented in the context of a threat, anticipation of a significant event, or the response to a significant event. Selective implementation through the activation of one or more of the systems components allows maximum flexibility in meeting the unique operational and information-sharing requirements of the situation at hand and enabling effective interaction between various entities. The EOP, as the core operational plan for incident management, establishes county-level coordinating structures, processes, and protocols that will be incorporated into certain existing interagency incident- or hazard-specific plans (such as the Hurricane Plan) that is designed to implement specific statutory authorities and responsibilities of various departments and agencies in particular contingency.

Purpose

The purpose of the EOP is to establish a comprehensive, countywide, all-hazards approach to incident management across a spectrum of activities including prevention, preparedness, response, and recovery. The EOP incorporates best practices and procedures from various incident management disciplines - homeland security, emergency management, law enforcement, firefighting, hazardous materials response, public works, public health, emergency medical services, and responder and recovery worker health and safety - and integrates them into a unified coordinating structure. The EOP provides the framework for interaction with municipal governments; the private sector; and NGOs in the context of incident prevention, preparedness, response, and recovery activities. It describes capabilities and resources and establishes responsibilities, operational processes, and protocols to help protect from natural and manmade hazards; save lives; protect public health, safety, property, and the environment; and reduce adverse psychological consequences and disruptions. Finally, the EOP serves as the foundation for the development of detailed supplemental plans and procedures to effectively and efficiently implement incident management activities and assistance in the context of specific types of incidents.

The EOP, using the NIMS, establishes mechanisms to:

- Maximize the integration of incident-related prevention, preparedness, response, and recovery activities;
- Improve coordination and integration of County, municipal, private-sector, and nongovernmental organization partners;
- Maximize efficient utilization of resources needed for effective incident management and Critical Infrastructure/Key Resources protection and restoration;
- Improve incident management communications and increase situational awareness across jurisdictions and between the public and private sectors;
- Facilitate emergency mutual aid and emergency support to municipal governments;
- Provide a proactive and integrated response to catastrophic events; and
- Address linkages to other incident management and emergency response plans developed for specific types of incidents or hazards.

A number of plans are linked to the EOP in the context of disasters or emergencies, but remain as stand-alone documents in that they also provide detailed protocols for responding to routine incidents that normally are managed by County agencies without the need for supplemental coordination. The EOP also incorporates other existing emergency response and incident management plans (with appropriate modifications and revisions) as integrated components, operational supplements, or supporting tactical plans.

This plan consists of the following components:

Scope and Applicability

The EOP covers the full range of complex and constantly changing requirements in anticipation of or in response to threats or acts of terrorism, major disasters, and other emergencies. The EOP also provides the basis to initiate long-term community recovery and mitigation activities.

The EOP establishes interagency and multi-jurisdictional mechanisms for involvement in and coordination of, incident management operations.

This plan distinguishes between incidents that require County coordination, termed disasters or emergencies, and the majority of incidents that are handled by responsible jurisdictions or agencies through other established authorities and existing plans.

In addition, the EOP:

- Recognizes and incorporates the various jurisdictional and functional authorities of departments and agencies; municipal governments; and private-sector organizations in incident management.

- Details the specific incident management roles and responsibilities of the departments and agencies involved in incident management as defined in relevant statutes and directives.

- Establishes the multi-agency organizational structures and processes required to implement the authorities, roles, and responsibilities for incident management.

This plan is applicable to all departments and agencies that may be requested to provide assistance or conduct operations in the context of actual or potential disasters or emergencies.

Disasters or emergencies are high-impact events that require a coordinated and effective response by an appropriate combination of County, municipal, private-sector, and nongovernmental entities in order to save lives, minimize damage, and provide the basis for long-term community recovery and mitigation activities.

Key Concepts

This section summarizes key concepts that are reflected throughout the EOP.

- Systematic and coordinated incident management, including protocols for:
    - Coordinated action;
    - Alert and notification;
    - Mobilization of County resources to augment existing municipal capabilities;
    - Operating under differing threats or threat levels; and
    - Integration of crisis and consequence management functions.

- Proactive notification and deployment of resources in anticipation of or in response to catastrophic events in coordination and collaboration with municipal governments and private entities when possible.

- Organizing interagency efforts to minimize damage, restore impacted areas to pre-incident conditions if feasible, and/or implement programs to mitigate vulnerability to future events.

- Coordinating worker safety and health, private-sector involvement, and other activities that are common to the majority of incidents (see Support Annexes).

- Organizing ESFs to facilitate the delivery of critical resources, assets, and assistance. Departments and agencies are assigned to lead or support ESFs based on authorities, resources, and capabilities.

- Providing mechanisms for vertical and horizontal coordination, communications, and information sharing in response to threats or incidents. These mechanisms

facilitate coordination among municipal entities and the County Government, as well as between the public and private sectors.

- Facilitating support to County departments and agencies acting under the requesting department or agencys own authorities.
- Developing detailed supplemental operations, tactical, and hazard-specific contingency plans and procedures.
- Providing the basis for coordination of interdepartmental and municipal planning, training, exercising, assessment, coordination, and information exchange.

Georgia Emergency Operation Plan

2017

Approval and Implementation

The Georgia Emergency Management and Homeland Security Agency maintains the Georgia Emergency Operations Plan and presents the plan to the Governor for adoption once every four years, at a minimum.

The Georgia Emergency Operations Plan was developed by the Georgia Emergency Management and Homeland Security Agency, in coordination with other state agencies, non-governmental organizations and private sector partners and is aligned with the National Incident Management System as well as the National Response Framework and the National Disaster Recovery Framework. In addition, Georgia Emergency Management and Homeland Security Agency modified the Georgia Emergency Operations Plan, its appendices, Emergency Support Function Annexes and Support and Hazard Specific Annexes incorporate lessons learned from exercises, training, incidents and events.

This plan supersedes the Georgia Emergency Operation Plan dated January 2013.

11/13/17

Homer Bryson

Director

Georgia Emergency Management and

Homeland Security Agency

Date

Executive Summary

Georgia is vulnerable to a variety of hazards as identified in the State's Hazard Mitigation Strategy Plan. Thus the Georgia Emergency Operations Plan is written for the entire State Disaster Response Team, to include, but not limited to: all executives, state emergency management personnel, Private-Sector Partners, Non-Governmental Organization partners, local emergency managers, faith-based organizations and any other individuals or organizations expected to support disaster response efforts through emergency management functions.

This Plan is intended to clarify expectations for an effective response by state and local officials in support of responders in the field which can save lives, protect property, and more quickly restore essential services.

This document represents decades of planning and coordination between local, state, federal and non-governmental partners operating within or supporting the State of Georgia and is intended to ensure seamless integration of federal and state resources when necessary.

This Plan is consistent with the National Response Framework and supports the local emergency operations plans for all 159 counties within the State.

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Hazard Risk Analyses
Supplement to the Glascock County Joint Hazard Mitigation Plan

Carl Vinson
Institute of Government
UNIVERSITY OF GEORGIA

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Introduction

The Federal Disaster Mitigation Act of 2000 (DMA2K) requires state, local, and tribal governments to develop and maintain a mitigation plan to be eligible for certain federal disaster assistance and hazard mitigation funding programs.

Mitigation seeks to reduce a hazard's impacts, which may include loss of life, property damage, disruption to local and regional economies, and the expenditure of public and private funds for recovery. Sound mitigation must be based on a sound risk assessment that quantifies the potential losses of a disaster by assessing the vulnerability of buildings, infrastructure, and people.

In recognition of the importance of planning in mitigation activities, FEMA Hazus-MH, a powerful disaster risk assessment tool based on geographic information systems (GIS). This tool enables communities of all sizes to predict estimated losses from floods, hurricanes, earthquakes, and other related phenomena and to measure the impact of various mitigation practices that might help reduce those losses.

In 2022, the Georgia Department of Emergency Management partnered with the Carl Vinson Institute of Government at the University of Georgia to develop a detailed risk assessment focused on defining hurricane, riverine flood, and tornado risks in Glascock County, Georgia. This assessment identifies the characteristics and potential consequences of the disaster, how much of the community could be affected by the disaster, and the impact on community assets.

Risk Assessment Process Overview

Hazus-MH Version 2.2 SP1 was used to perform the analyses for Glascock County. The Hazus-MH application includes default data for every county in the US. This Hazus-MH data was derived from a variety of national sources and in some cases the data are also several years old. Whenever possible, using local provided data is preferred. Glascock County provided building inventory information from the county's property tax assessment system. This section describes the changes made to the default Hazus-MH inventory and the modeling parameters used for each scenario.

County Inventory Changes

The default Hazus-MH site-specific point inventory was updated using data compiled from the Georgia Emergency Management Agency (GEMA). The default Hazus-MH aggregate inventory (General Building Stock) was also updated prior to running the scenarios. Reported losses reflect the updated data sets.

General Building Stock Updates

General Building Stock (GBS) is an inventory category that consists of aggregated data (grouped by census geography — tract or block). Hazus-MH generates a combination of site-specific and aggregated loss estimates based on the given analysis and user input.

The GBS records for Glascock County were replaced with data derived from parcel and property assessment data obtained from Glascock County. The county provided property assessment data was current as of March 2022 and the parcel data current as of March 2022. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary; then, each parcel point was linked to an assessor record based upon matching parcel numbers. The parcel assessor match-rate for Glascock County is 98.8%. The generated building inventory represents the approximate locations (within a parcel) of structures. The building inventory was aggregated by census block. Both the tract and block tables were updated. Table 1 shows the results of the changes to the GBS tables by occupancy class.

Table 1: GBS Building Exposure Updates by Occupancy Class*

General Occupancy	Default Hazus-MH Count	Updated Count	Default Hazus-MH Exposure	Updated Exposure
Agricultural	0	0	$0	$0
Commercial	59	42	$3,382,000	$2,352,000
Education	0	3	$0	$1,030,000
Government	3	3	$443,000	$152,000
Industrial	27	43	$26,724,000	$3,395,000
Religious	0	3	$0	$112,000
Residential	1,541	1,624	$128,718,000	$145,905,000
Total	**1,630**	**1,718**	**$159,267,000**	**$152,946,000**

*The exposure values represent the total number and replacement cost for all Glascock County Buildings

For Glascock County, the updated GBS was used to calculate hurricane wind losses. The flood losses and tornado losses were calculated from building inventory modeled in Hazus-MH as User-Defined Facility

(UDF)[1], or site-specific points. Figure 1 shows the distribution of buildings as points based on the county provided data.

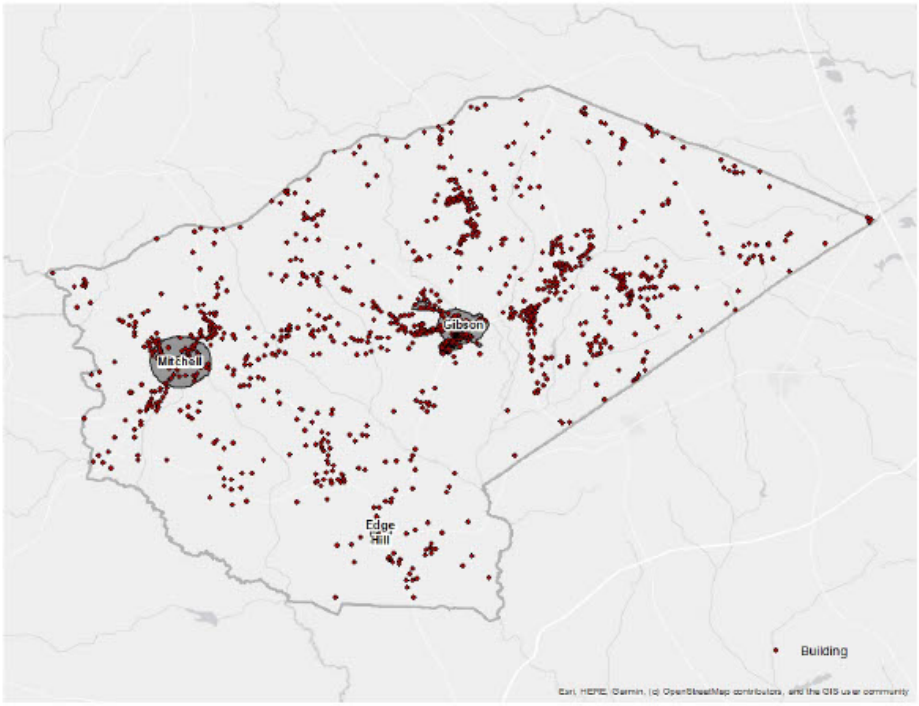

Figure 1: Glascock County Overview

Essential Facility Updates

The default Hazus-MH essential facility data was updated to reflect improved information available in the Georgia Mitigation Information System (GMIS) as of February 2022. For these risk analyses, only GMIS data for buildings that Hazus-MH classified as Essential Facilities was integrated into Hazus-MH because the application provides specialized reports for these five facilities. Essential Facility inventory was updated for the analysis conducted for this report. The following table summarizes the counts and exposures, where available, by Essential Facility classification of the updated data.

Essential facilities include:

- Care facilities
- EOCs
- Fire stations
- Police stations
- Schools

[1] The UDF inventory category in Hazus-MH allows the user to enter site-specific data in place of GBS data.

Table 2: Updated Essential Facilities

Classification	Updated Count	Updated Exposure
Edge Hill		
EOC	0	$0
Care	0	$0
Fire	1	$125,000
Police	0	$0
School	0	$0
Total	**1**	**$125,000**
Gibson		
EOC	1	$250,000
Care	3	$2,298,000
Fire	1	$750,000
Police	1	$95,000
School	3	$7,455,000
Total	**9**	**$10,848,000**
Mitchell		
EOC	0	$0
Care	0	$0
Fire	1	$150,000
Police	0	$0
School	0	$0
Total	**1**	**$150,000**
Unincorporated Areas of Glascock County		
EOC	0	$0
Care	0	$0
Fire	1	$150,000
Police	0	$0
School	0	$0
Total	**1**	**$150,000**

Assumptions and Exceptions

Hazus-MH loss estimates may be impacted by certain assumptions and process variances made in this risk assessment.

- The Glascock County analysis used Hazus-MH Version 2.2 SP1, which was released by FEMA in May 2015.
- County provided parcel and property assessment data may not fully reflect all buildings in the county. For example, some counties do not report not-for-profit buildings such as government buildings, schools and churches in their property assessment data. This data was used to update the General Building Stock as well as the User Defined Facilities applied in this risk assessment.
- Georgia statute requires that the Assessor's Office assign a code to all of the buildings on a parcel based on the buildings primary use. If there is a residential or a commercial structure on a parcel and there are also agricultural buildings on the same parcel Hazus-MH looks at the residential and commercial "primary" structures first and then combines the value of all secondary structures on that parcel with the value of the primary structure. The values and building counts are still accurate but secondary structures are accounted for under the same classification as the primary structure. Because of this workflow, the only time that a parcel would show a value for an agricultural building is when there are no residential or commercial structures on the parcel thus making the agricultural building the primary structure. This is the reason that agricultural building counts and total values seem low or are nonexistent.
- GBS updates from assessor data will skew loss calculations. The following attributes were defaulted or calculated:
  - Foundation Type was set from Occupancy Class
  - First Floor Height was set from Foundation Type
  - Content Cost was calculated from Replacement Cost
- It is assumed that the buildings are located at the centroid of the parcel.
- The essential facilities extracted from the GMIS were only used in the portion of the analysis designated as essential facility damage. They were not used in the update of the General Building Stock or the User Defined Facility inventory.

The hazard models included in this risk assessment included:

- Hurricane assessment which was comprised of a wind only damage assessment.
- Flood assessment based on the 1% annual chance event that includes riverine assessments.
- Tornado assessment based on GIS modeling.

Hurricane Risk Assessment

Hazard Definition

The National Hurricane Center describes a hurricane as a tropical cyclone in which the maximum sustained wind is, at minimum, 74 miles per hour (mph)[2]. The term hurricane is used for Northern Hemisphere tropical cyclones east of the International Dateline to the Greenwich Meridian. The term typhoon is used for Pacific tropical cyclones north of the Equator west of the International Dateline. Hurricanes in the Atlantic Ocean, Gulf of Mexico, and Caribbean form between June and November with the peak of hurricane season occurring in the middle of September. Hurricane intensities are measured using the Saffir-Simpson Hurricane Wind Scale (Table 3). This scale is a 1 to 5 categorization based on the hurricane's intensity at the indicated time.

Hurricanes bring a complex set of impacts. The winds from a hurricane produce a rise in the water level at landfall called storm surge. Storm surges produce coastal flooding effects that can be as damaging as the hurricane's winds. Hurricanes bring very intense inland riverine flooding. Hurricanes can also produce tornadoes that can add to the wind damages inland. In this risk assessment, only hurricane winds, and coastal storm surge are considered.

Table 3: Saffir-Simpson Hurricane Wind Scale

Category	Wind Speed (mph)	Damage
1	74 - 95	Very dangerous winds will produce some damage
2	96 - 110	Extremely dangerous winds will cause extensive damage
3	111 - 130	Devastating damage will occur
4	131 -155	Catastrophic damage will occur
5	> 155	Catastrophic damage will occur

The National Oceanic and Atmospheric Administration's National Hurricane Center created the HURDAT database, which contains all of the tracks of tropical systems since the mid-1800s. This database was used to document the number of tropical systems that have affected Glascock County by creating a 20-mile buffer around the county to include storms that didn't make direct landfall in Glascock County but impacted the county. Note that the storms listed contain the peak sustained winds, maximum pressure and maximum attained storm strength for the entire storm duration. Since 1852, Glascock County has had 20 tropical systems within 20 miles of its county borders (Table 4).

Table 4: Tropical Systems affecting Glascock County[3]

YEAR	DATE RANGE	NAME	MAX WIND(Knots)	MAX PRESSURE	MAX CAT
1852	August 19-30	UNNAMED	115	961	H3

[2] National Hurricane Center (2011). "Glossary of NHC Terms." National Oceanic and Atmospheric Administration. http://www.nhc.noaa.gov/aboutgloss.shtml#h. Retrieved 2012-23-02.

[3] Atlantic Oceanic and Meteorological Laboratory (2012). "Data Center." National Oceanic and Atmospheric Administration. http://www.aoml.noaa.gov/hrd/data_sub/re_anal.html. Retrieved 7-20-2015.

YEAR	DATE RANGE	NAME	MAX WIND(Knots)	MAX PRESSURE	MAX CAT
1886	June 17-24	UNNAMED	98	0	H2
1887	October 09-22	UNNAMED	86	0	H1
1889	September 12-26	UNNAMED	109	0	H2
1928	August 03-13	UNNAMED	104	977	H2
1933	August 31 - September 07	UNNAMED	138	948	H4
1947	October 05-09	UNNAMED	58	0	TS
1949	August 23 - September 01	UNNAMED	132	1002	H4
1959	May 28 - June 02	ARLENE	63	1002	TS
1965	June 13-20	UNNAMED	58	1007	TS
1968	June 01-13	ABBY	75	1005	H1
1972	June 14-23	AGNES	86	1001	H1
1990	October 09-13	MARCO	63	1007	TS
2000	September 15-25	HELENE	69	1012	TS
2001	June 05-19	ALLISON	58	1012	TS
2003	July 25-27	UNNAMED	35	1022	TD
2004	September 13-29	JEANNE	121	1010	H3
2018	October 06-15	MICHAEL	161	1006	H5
2020	July 05-11	FAY	58	1014	TS
2020	September 11-18	SALLY	109	1007	H2

Category Definitions:

TS – Tropical storm

TD – Tropical depression

H1 – Category 1 (same format for H2, H3, and H4)

E – Extra-tropical cyclone

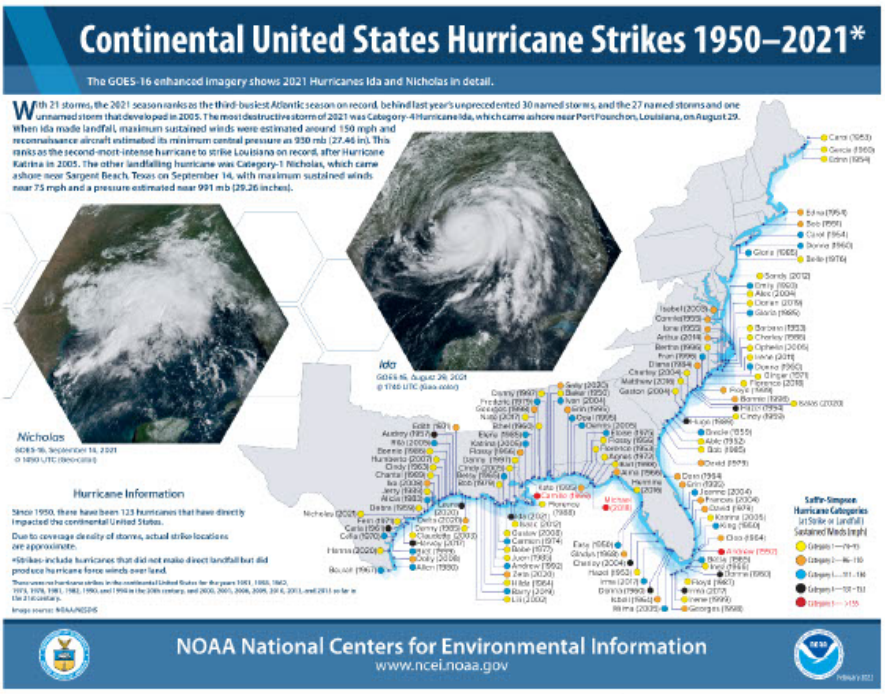

Figure 2: Continental United States Hurricane Strikes: 1950 to 2021[4]

Probabilistic Hurricane Scenario

The following probabilistic wind damage risk assessment modeled a Tropical Storm with maximum winds of 72 mph.

Wind Damage Assessment

Separate analyses were performed to determine wind and hurricane storm surge related flood losses. This section describes the wind-based losses to Glascock County. Wind losses were determined from probabilistic models run for the Tropical Storm which equates to the 1% chance storm event. Figure 3 shows wind speeds for the modeled Tropical Storm.

[4] Source: NOAA National Centers for Environmental Information

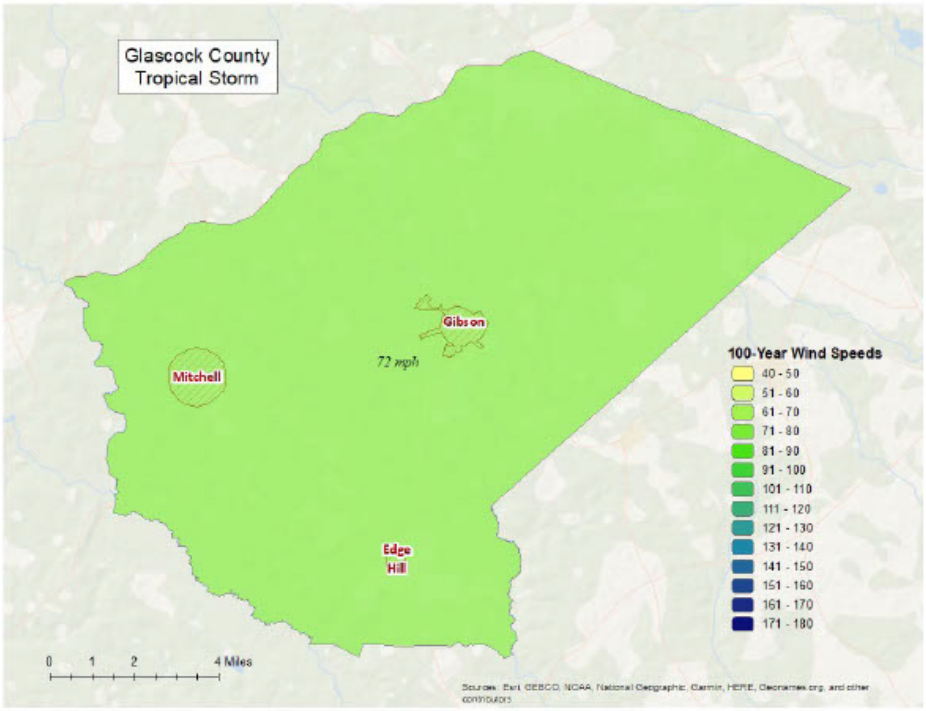

Figure 3: Wind Speeds by Storm Category

Wind-Related Building Damages

Buildings in Glascock County are vulnerable to storm events, and the cost to rebuild may have significant consequences to the community. The following table shows a summary of the results of wind-related building damage in Glascock County for the Tropical Storm (100 Year Event). The loss ratio expresses building losses as a percentage of total building replacement cost in the county. Figure 4 illustrates the building loss ratios of the modeled Tropical Storm.

Table 5: Hurricane Wind Building Damage

Classification	Number of Buildings Damaged	Total Building Damage	Total Economic Loss[5]	Loss Ratio
Tropical Storm	8	$233,930	$323,060	0.15%

[5] Includes property damage (infrastructure, contents, and inventory) as well as business interruption losses.

Note that wind damaged buildings are not reported by jurisdiction. This is due to the fact that census tract boundaries – upon which hurricane building losses are based – do not closely coincide with jurisdiction boundaries.

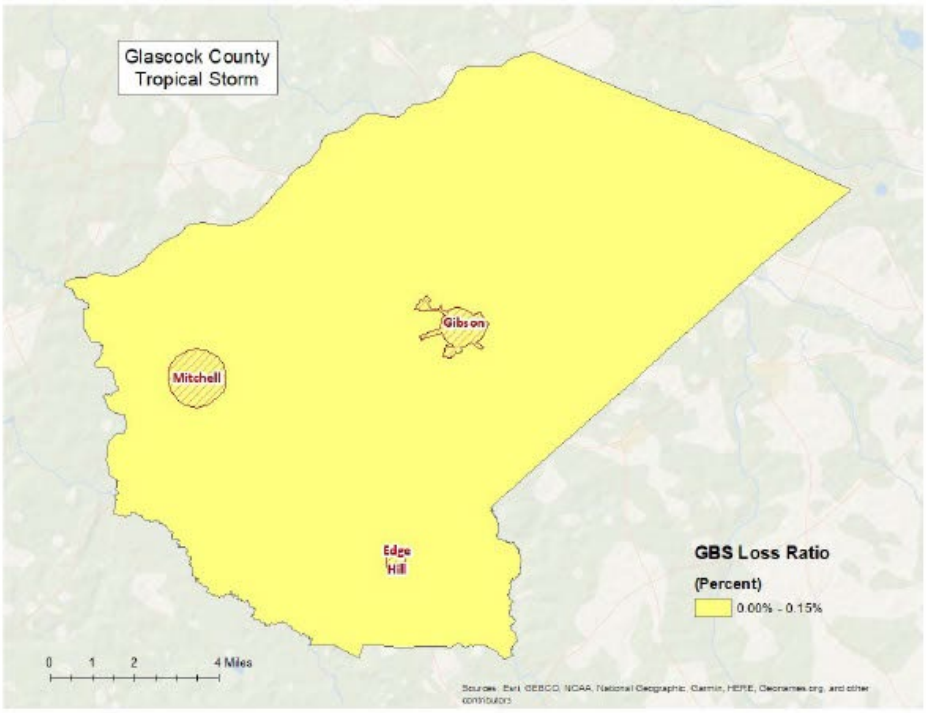

Figure 4: Hurricane Wind Building Loss Ratios

Essential Facility Losses

Essential facilities are also vulnerable to storm events, and the potential loss of functionality may have significant consequences to the community. Hazus-MH identified the essential facilities that may be moderately or severely damaged by winds. The results are compiled in Table 6.

There are 12 essential facilities in Glascock County.

Classification	Number
EOCs	1
Fire Stations	4
Care Facilities	3
Police Stations	1
Schools	3

Table 6: Wind-Damaged Essential Facility Losses

Classification	Facilities At Least Moderately Damaged > 50%	Facilities Completely Damaged > 50%	Facilities with Expected Loss of Use (< 1 day)
Tropical Storm	0	0	12

Shelter Requirements

Hazus-MH estimates the number of households evacuated from buildings with severe damage from high velocity winds as well as the number of people who will require short-term sheltering. Since the 1% chance storm event for Glascock County is a Tropical Storm, the resulting damage is not enough to displace Households or require temporary shelters as shown in the results listed in Table 7.

Table 7: Displaced Households and People

Classification	# of Displaced Households	# of People Needing Short-Term Shelter
Tropical Storm	0	0

Debris Generated from Hurricane Wind

Hazus-MH estimates the amount of debris that will be generated by high velocity hurricane winds and quantifies it into three broad categories to determine the material handling equipment needed:

- Reinforced Concrete and Steel Debris
- Brick and Wood and Other Building Debris
- Tree Debris

Different material handling equipment is required for each category of debris. The estimates of debris for this scenario are listed in Table 8. The amount of hurricane wind related tree debris that is estimated to require pick up at the public's expense is listed in the eligible tree debris column.

Table 8: Wind-Related Debris Weight (Tons)

Classification	Brick, Wood, and Other	Reinforced Concrete and Steel	Eligible Tree Debris	Other Tree Debris	Total
Tropical Storm	25	0	542	13,320	13,887

Figure 5 shows the distribution of all wind related debris resulting from a Tropical Storm. Each dot represents 20 tons of debris within the census tract in which it is located. The dots are randomly distributed within each census tract and therefore do not represent the specific location of debris sites.

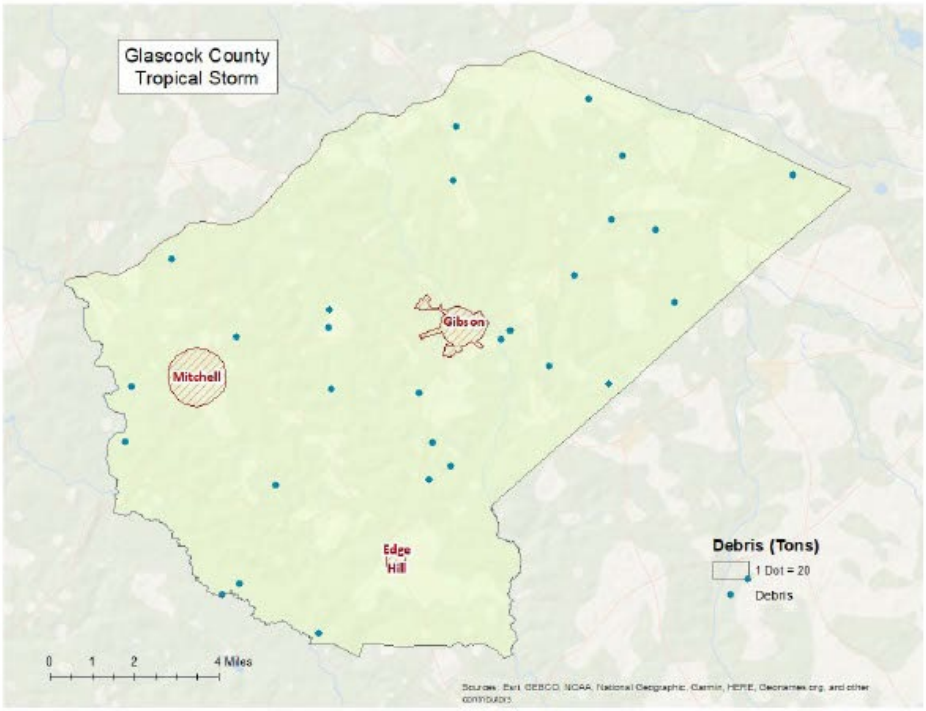

Figure 5: Wind-Related Debris Weight (Tons)

Flood Risk Assessment

Hazard Definition

Flooding is a significant natural hazard throughout the United States. The type, magnitude, and severity of flooding are functions of the amount and distribution of precipitation over a given area, the rate at which precipitation infiltrates the ground, the geometry and hydrology of the catchment, and flow dynamics and conditions in and along the river channel. Floods can be classified as one of three types: upstream floods, downstream floods, or coastal floods.

Upstream floods, also called flash floods, occur in the upper parts of drainage basins and are generally characterized by periods of intense rainfall over a short duration. These floods arise with very little warning and often result in locally intense damage, and sometimes loss of life, due to the high energy of the flowing water. Flood waters can snap trees, topple buildings, and easily move large boulders or other structures. Six inches of rushing water can upend a person; another 18 inches might carry off a car. Generally, upstream floods cause damage over relatively localized areas, but they can be quite severe in the local areas in which they occur. Urban flooding is a type of upstream flood. Urban flooding involves the overflow of storm drain systems and can be the result of inadequate drainage combined with heavy rainfall or rapid snowmelt. Upstream or flash floods can occur at any time of the year in Georgia, but they are most common in the spring and summer months.

Downstream floods, also called riverine floods, refer to floods on large rivers at locations with large upstream catchments. Downstream floods are typically associated with precipitation events that are of relatively long duration and occur over large areas. Flooding on small tributary streams may be limited, but the contribution of increased runoff may result in a large flood downstream. The lag time between precipitation and time of the flood peak is much longer for downstream floods than for upstream floods, generally providing ample warning for people to move to safe locations and, to some extent, secure some property against damage.

Coastal floods occurring on the Atlantic and Gulf coasts may be related to hurricanes or other combined offshore, nearshore, and shoreline processes. The effects of these complex interrelationships vary significantly across coastal settings, leading to challenges in the determination of the base (1-percent-annual-chance) flood for hazard mapping purposes. Land area covered by floodwaters of the base flood is identified as a Special Flood Hazard Area (SFHA). The Glascock County flood risk assessment analyzed at risk structures in the SFHA.

> The SFHA is the area where the National Flood Insurance Program's (NFIP) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The owner of a structure in a high-risk area must carry flood insurance, if the owner carries a mortgage from a federally regulated or insured lender or servicer.

The following probabilistic risk assessment involves an analysis of a 1% annual chance riverine flood event (100-Year Flood) and a 1% annual chance coastal flood.

Riverine 1% Flood Scenario

Riverine losses were determined from the 1% flood boundaries downloaded from the FEMA Flood Map Service Center in March 2022. The flood boundaries were overlaid with the USGS 10 meter DEM using

the Hazus-MH Enhanced Quick Look tool to generate riverine depth grids. The riverine flood depth grid was then imported into Hazus-MH to calculate the riverine flood loss estimates. Figure 6 illustrates the riverine inundation boundary associated with the 1% annual chance.

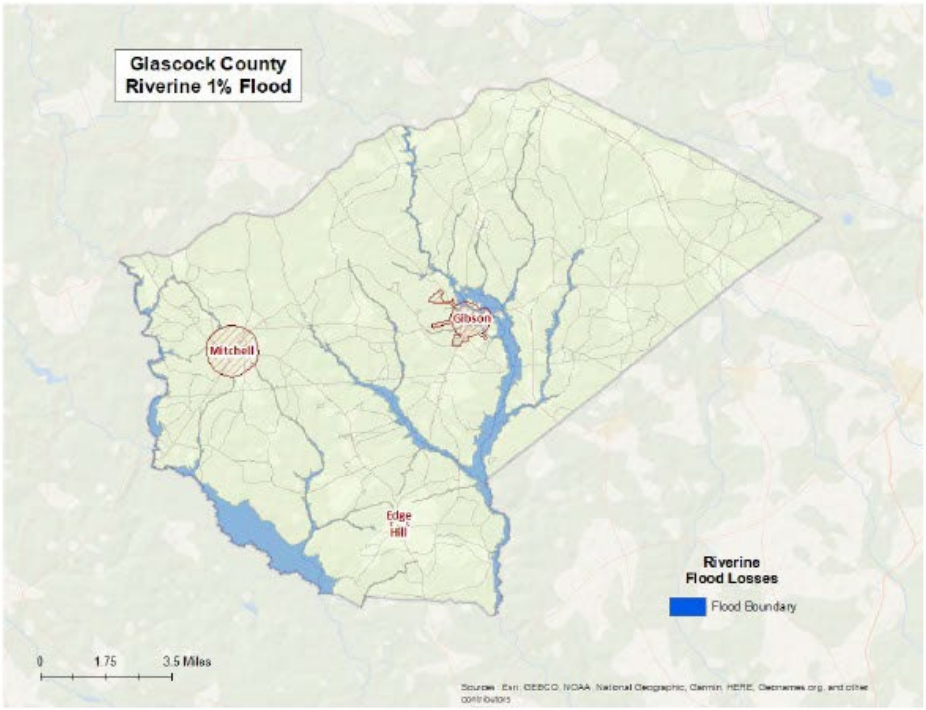

Figure 6: Riverine 1% Flood Inundation

Riverine 1% Flood Building Damages

Buildings in Glascock County are vulnerable to flooding from events equivalent to the 1% riverine flood. The economic and social impacts from a flood of this magnitude can be significant. Table 9 provides a summary of the potential flood-related building damage in Glascock County by jurisdiction that might be experienced from the 1% flood. Figure 7 maps the potential loss ratios of total building exposure to losses sustained to buildings from the 1% flood by 2010 census block and Figure 8 illustrates the relationship of building locations to the 1% flood inundation boundary.

Table 9: Glascock County Riverine 1% Building Losses

Occupancy	Total Buildings in the Jurisdiction	Total Buildings Damaged in the Jurisdiction	Total Building Exposure in the Jurisdiction	Total Losses to Buildings in the Jurisdiction	Loss Ratio of Exposed Buildings to Damaged Buildings in the Jurisdiction
Gibson					
Commercial	27	1	$1,815,946	$8,099	0.45%
Residential	283	2	$40,738,283	$66,451	0.16%
Unincorporated					
Residential	1,226	15	$92,755,558	$297,909	0.32%
County Total					
	1,536	**18**	**$135,309,787**	**$372,459**	

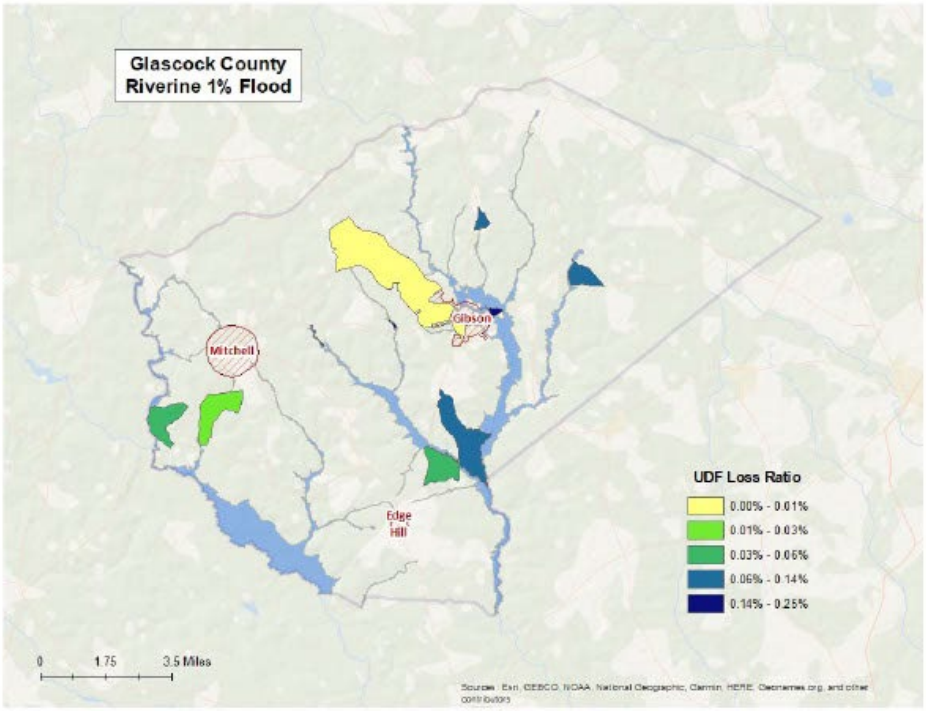

Figure 7: Glascock County Potential Loss Ratios of Total Building Exposure to Losses Sustained to Buildings from the 1% Riverine Flood by 2010 Census Block

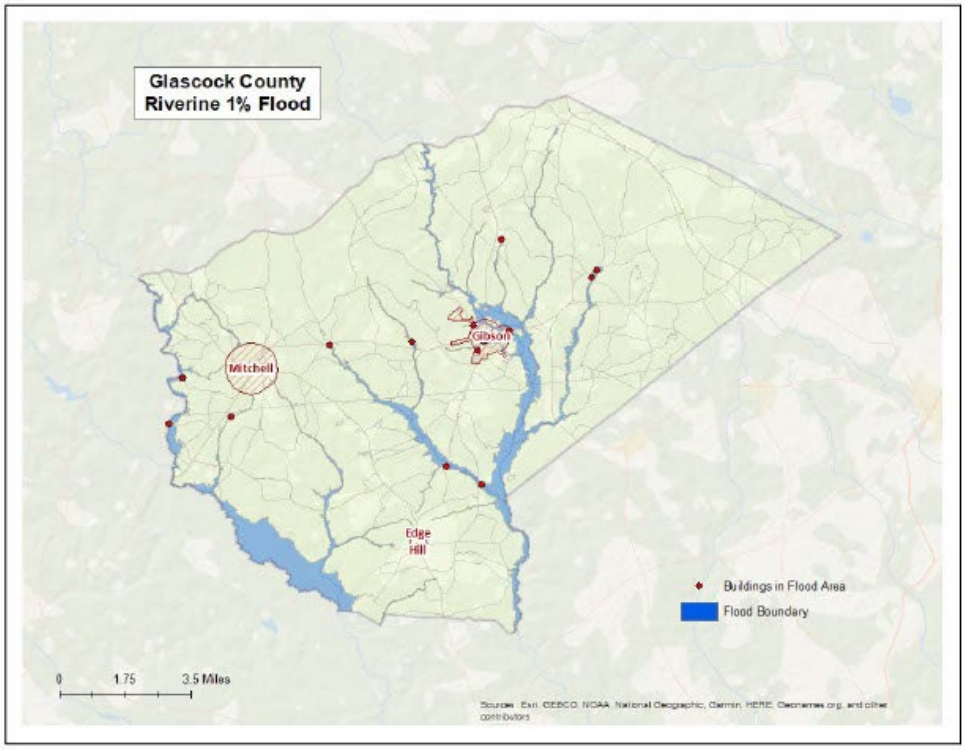

Figure 8: Glascock County Damaged Buildings in Riverine Floodplain (1% Flood)

Riverine 1% Flood Essential Facility Losses

An essential facility may encounter many of the same impacts as other buildings within the flood boundary. These impacts can include structural failure, extensive water damage to the facility and loss of facility functionality (e.g. a damaged police station will no longer be able to serve the community). The analysis identified no essential facility that were subject to damage in the Glascock County riverine 1% probability floodplain.

Riverine 1% Flood Shelter Requirements

Hazus-MH estimates that the number of households that are expected to be displaced from their homes due to riverine flooding and the associated potential evacuation. The model estimates 54 households might be displaced due to the flood. Displacement includes households evacuated within or very near to the inundated area. Displaced households represent 161 individuals, of which 63 may require short term publicly provided shelter. The results are mapped in Figure 9.

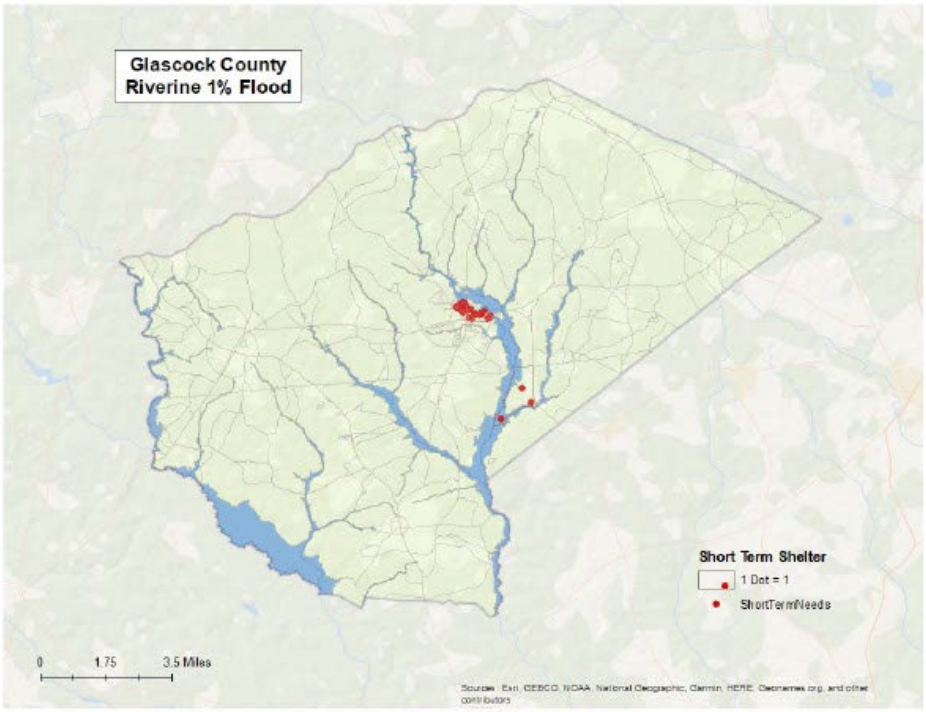

Figure 9: Riverine 1% Estimated Flood Shelter Requirements

Riverine 1% Flood Debris

Hazus-MH estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories:

- Finishes (dry wall, insulation, etc.)
- Structural (wood, brick, etc.)
- Foundations (concrete slab, concrete block, rebar, etc.)

Different types of material handling equipment will be required for each category. Debris definitions applied in Hazus-MH are unique to the Hazus-MH model and so do not necessarily conform to other definitions that may be employed in other models or guidelines.

The analysis estimates that an approximate total of 564 tons of debris might be generated: 1) Finishes- 260 tons; 2) Structural – 108 tons; and 3) Foundations- 196 tons. The results are mapped in Figure 10.

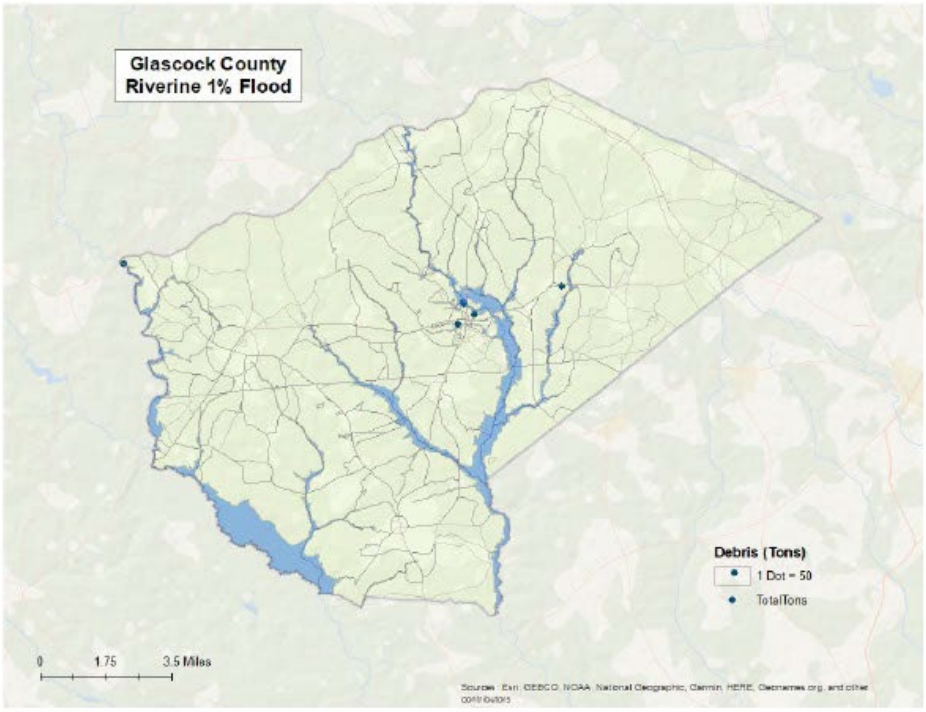

Figure 10: Riverine 1% Flood Debris Weight (Tons)

Tornado Risk Assessment

Hazard Definition

Tornadoes pose a great risk to the state of Georgia and its citizens. Tornadoes can occur at any time during the day or night. They can also happen during any month of the year. The unpredictability of tornadoes makes them one of Georgia's most dangerous hazards. Their extreme winds are violently destructive when they touch down in the region's developed and populated areas. Current estimates place the maximum velocity at about 300 miles per hour, but higher and lower values can occur. A wind velocity of 200 miles per hour will result in a wind pressure of 102.4 pounds per square foot of surface area—a load that exceeds the tolerance limits of most buildings. Considering these factors, it is easy to understand why tornadoes can be so devastating for the communities they hit.

Tornadoes are defined as violently-rotating columns of air extending from thunderstorms and cyclonic events. Funnel clouds are rotating columns of air not in contact with the ground; however, the violently-rotating column of air can reach the ground very quickly and become a tornado. If the funnel cloud picks up and blows debris, it has reached the ground and is a tornado.

Tornadoes are classified according to the Fujita tornado intensity scale. Originally introduced in 1971, the scale was modified in 2006 to better define the damage and estimated wind scale. The Enhanced Fujita Scale ranges from low intensity EF0 with effective wind speeds of 65 to 85 miles per hour, to EF5 tornadoes with effective wind speeds of over 200 miles per hour. The Enhanced Fujita intensity scale is included in Table 10.

Table 10: Enhanced Fujita Tornado Rating

Fujita Number	Estimated Wind Speed	Path Width	Path Length	Description of Destruction
EF0 *Gale*	65-85 mph	6-17 yards	0.3-0.9 miles	Light damage, some damage to chimneys, branches broken, sign boards damaged, shallow-rooted trees blown over.
EF1 Moderate	86-110 mph	18-55 yards	1.0-3.1 miles	Moderate damage, roof surfaces peeled off, mobile homes pushed off foundations, attached garages damaged.
EF2 Significant	111-135 mph	56-175 yards	3.2-9.9 miles	Considerable damage, entire roofs torn from frame houses, mobile homes demolished, boxcars pushed over, large trees snapped or uprooted.
EF3 Severe	136-165 mph	176-566 yards	10-31 miles	Severe damage, walls torn from well-constructed houses, trains overturned, most trees in forests uprooted, heavy cars thrown about.
EF4 Devastating	166-200 mph	0.3-0.9 miles	32-99 miles	Complete damage, well-constructed houses leveled, structures with weak foundations blown off for some distance, large missiles generated.
EF5 Incredible	> 200 mph	1.0-3.1 miles	100-315 miles	Foundations swept clean, automobiles become missiles and thrown for 100 yards or more, steel-reinforced concrete structures badly damaged.

Source: http://www.srh.noaa.gov

Hypothetical Tornado Scenario

For this report, an EF3 tornado was modeled to illustrate the potential impacts of tornadoes of this magnitude in the county. The analysis used a hypothetical path based upon an EF3 tornado event running along the predominant direction of historical tornados (southeast to northwest). The tornado path was placed to travel through Gibson. The selected widths were modeled after a re-creation of the Fujita-Scale guidelines based on conceptual wind speeds, path widths, and path lengths. There is no guarantee that every tornado will fit exactly into one of these categories. Table 11 depicts tornado path widths and expected damage.

Table 11: Tornado Path Widths and Damage Curves

Fujita Scale	Path Width (feet)	Maximum Expected Damage
EF-5	2,400	100%
EF-4	1,800	100%
EF-3	1,200	80%
EF-2	600	50%
EF-1	300	10%
EF-0	300	0%

Within any given tornado path there are degrees of damage. The most intense damage occurs within the center of the damage path, with decreasing amounts of damage away from the center. After the hypothetical path is digitized on a map, the process is modeled in GIS by adding buffers (damage zones) around the tornado path. Figure 11 describes the zone analysis.

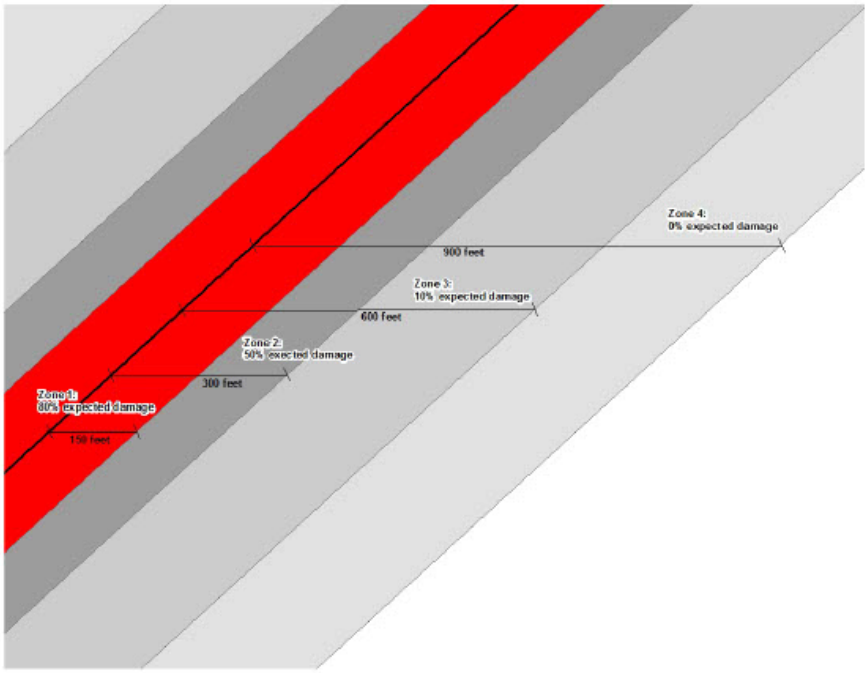

Figure 11: EF Scale Tornado Zones

An EF3 tornado has four damage zones, depicted in Table 12. Major damage is estimated within 150 feet of the tornado path. The outer buffer is 900 feet from the tornado path, within which buildings will not experience any damage. The selected hypothetical tornado path is depicted in Figure 12 and the damage curve buffer zones are shown in Figure 13.

Table 12: EF3 Tornado Zones and Damage Curves

Zone	Buffer (feet)	Damage Curve
1	0-150	80%
2	150-300	50%
3	300-600	10%
4	600-900	0%

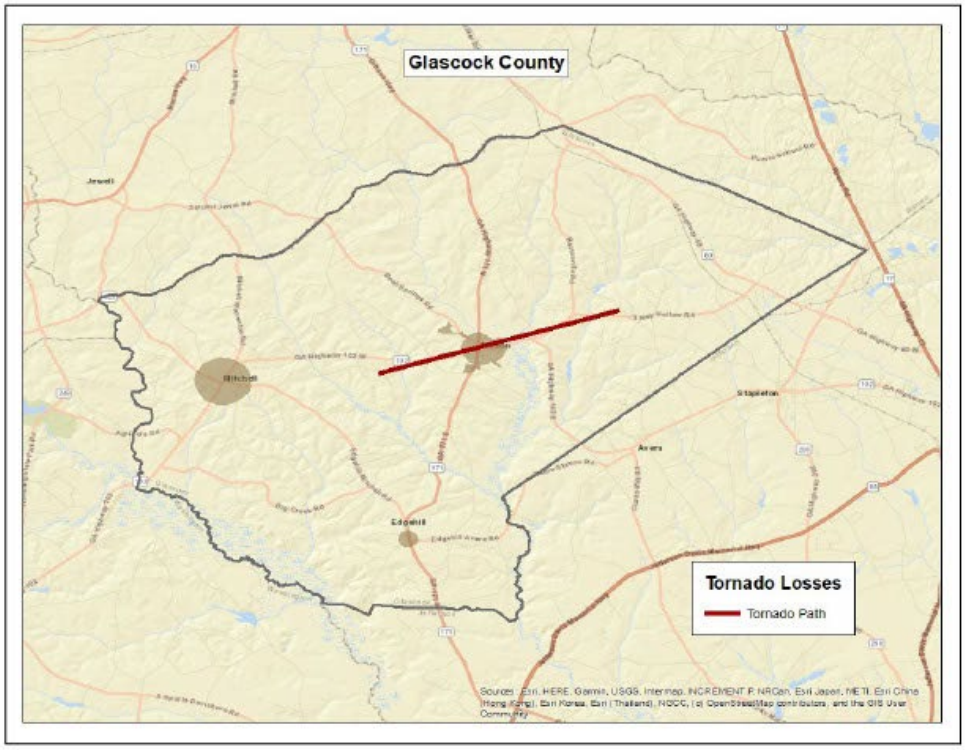

Figure 12: Hypothetical EF3 Tornado Path in Glascock County

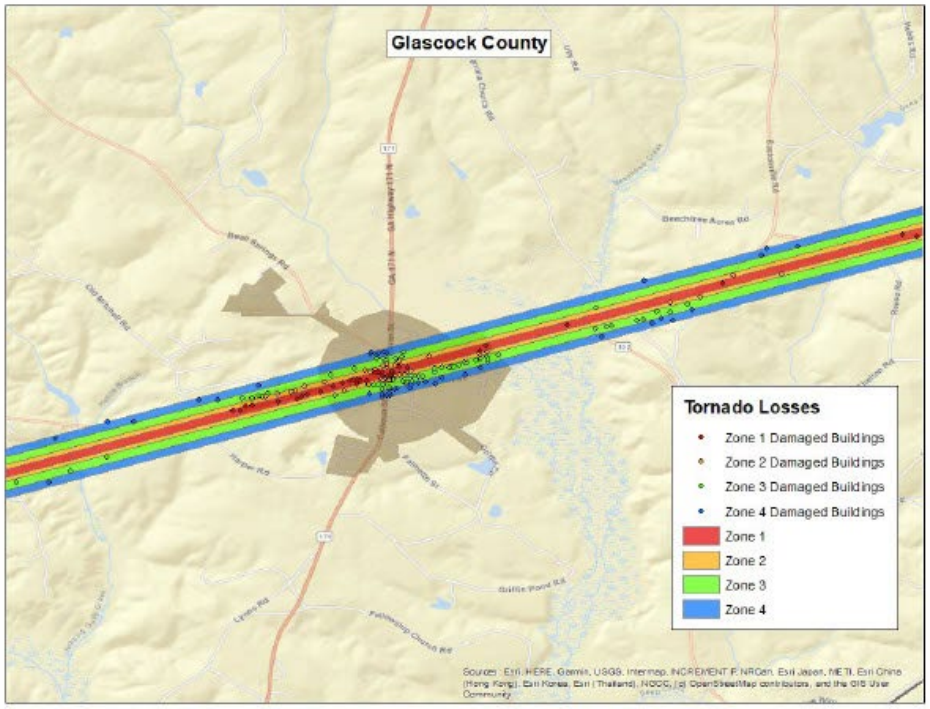

Figure 13: Modeled EF3 Tornado Damage Buffers in Glascock County

EF3 Tornado Building Damages

The analysis estimated that approximately 224 buildings could be damaged, with estimated building losses of $9 million. The building losses are an estimate of building replacement costs multiplied by the percentages of damage. The overlay was performed against parcels provided by Glascock County that were joined with Assessor records showing estimated property replacement costs. The Assessor records often do not distinguish parcels by occupancy class if the parcels are not taxable and thus the number of buildings and replacement costs may be underestimated. The results of the analysis are depicted in Table 13.

Table 13: Estimated Building Losses by Occupancy Type

Occupancy	Buildings Damaged	Building Losses
Commercial	26	$522,517
Education	3	$103,025
Government	1	$37,225
Industrial	14	$216,068
Residential	180	8,147,657
Total	**224**	**$9,026,492**

EF3 Tornado Essential Facility Damage

There were six essential facilities located in the tornado path – one school, two medical care facilities, one fire station, one police station and one emergency operations center. Table 14 outlines the specific facility and the amount of damage under the scenario.

Table 14: Estimated Essential Facilities Damaged

Facility	Amount of Damage
Glascock County Gym/Emergency Shelter	Major Damage
Emergency Operations Center	Major Damage
Glascock Health Department	Major Damage
Glascock County Sheriff's Office	Minor Damage
Gibson-Glascock County Fire Dept.	Minor Damage
Tri-County Health System	Minor Damage

The location of the damaged Essential Facilities are mapped in Figure 14.

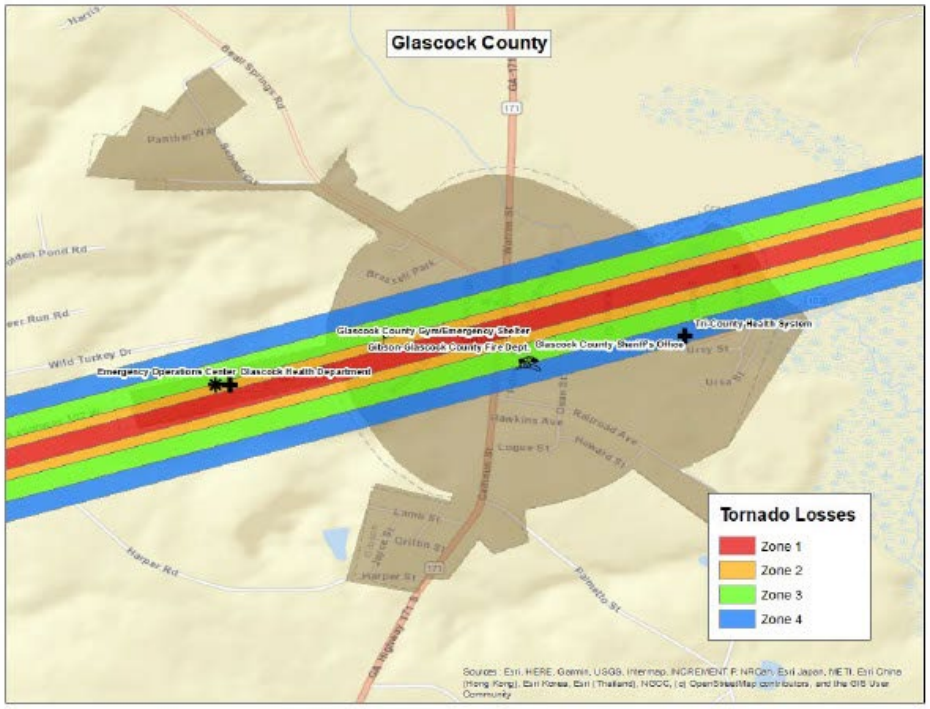

Figure 14: Modeled Essential Facility Damage in Glascock County

Exceptions Report

Hazus Version 2.2 SP1 was used to perform the loss estimates for Glascock County, Georgia. Changes made to the default Hazus-MH inventory and the modeling parameters used to setup the hazard scenarios are described within this document.

Reported losses reflect the updated data sets. Steps, algorithms and assumptions used during the data update process are documented in the project workflow named PDM_GA_Workflow.doc.

Statewide Inventory Changes

The default Hazus-MH Essential Facility inventory was updated for the entire state prior to running the hazard scenarios for Glascock County.

Updates to the Critical Facility data used in GMIS were provided by Glascock County in February 2022. These updates were applied by The Carl Vinson Institute of Government at the University of Georgia. Table 15 summarizes the difference between the original Hazus-MH default data and the updated data for Glascock County.

Table 15: Essential Facility Updates

Site Class	Feature Class	Default Replacement Cost	Default Count	Updated Replacement Cost	Updated Count
EF	Care	$2,298,000	3	$2,298,000	3
EF	EOC	$880,000	1	$250,000	1
EF	Fire	$1,050,000	3	$1,175,000	4
EF	Police	$95,000	1	$95,000	1
EF	School	$7,455,000	3	$7,455,000	3

County Inventory Changes

The GBS records for Glascock County were replaced with data derived from parcel and property assessment data obtained from Glascock County. The county provided property assessment data was current as of March 2022 and the parcel data current as of March 2022.

General Building Stock Updates

The parcel boundaries and assessor records were obtained from Glascock County. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary. Each parcel point was linked to an assessor record based upon matching parcel numbers. The generated Building Inventory represents the approximate locations (within a parcel) of building exposure. The Building Inventory was aggregated by Census Block and imported into Hazus-MH using the Hazus-MH Comprehensive Data Management System (CDMS). Both the 2010 Census Tract and Census Block tables were updated.

The match between parcel records and assessor records was based upon a common Parcel ID. For this type of project, unless the hit rate is better than 85%, the records are not used to update the default aggregate inventory in Hazus-MH. The Parcel-Assessor hit rate for Glascock County was 98.8%.

Adjustments were made to records when primary fields did not have a value. In these cases, default values were applied to the fields. Table 16 outlines the adjustments made to Glascock County records.

Table 16: Building Inventory Default Adjustment Rates

Type of Adjustment	Building Count	Percentage
Area Unknown	338	20%
Construction Unknown	415	24%
Condition Unknown	238	14%
Foundation Unknown	420	24%
Year Built Unknown	195	11%
Total Buildings*	**1,724**	**19%**

*Please note that this number reflects records that had to be adjusted in any of the five fields listed in the table. It is possible that a building could be counted up to 5 times in this number if the record was missing data for all five of the attributes listed in the table. While an adjustment factor of 19% is slightly outside the guidelines, further inspection revealed that only two of the adjusted structures are inside a flood zone.

Approximately 19% of the CAMA values were either missing (<Null> or '0'), did not match CAMA domains or were unusable ('Unknown', 'Other', 'Pending'). These were replaced with 'best available' values. Missing YearBuilt values were populated from average values per Census Block. Missing Condition, Construction and Foundation values were populated with the highest-frequency CAMA values per Occupancy Class. Missing Area values were populated with the average CAMA values per Occupancy Class.

The resulting Building Inventory was used to populate the Hazus-MH General Building Stock and User Defined Facility tables. The updated General Building Stock was used to calculate flood and tornado losses. Changes to the building counts and exposure that were modeled in Glascock County are sorted by General Occupancy in Table 1 at the beginning of this report. If replacements cost or building value were not present for a given record in the Assessor data, replacement costs were calculated from the Building Area (sqft) multiplied by the Hazus-MH RS Means ($/sqft) values for each Occupancy Class.

Differences between the default and updated data are due to various factors. The Assessor records often do not distinguish parcels by occupancy class when the parcels are not taxable; therefore, the total number of buildings and the building replacement costs for government, religious/non-profit, and education may be underestimated.

User Defined Facilities

Building Inventory was used to create Hazus-MH User Defined Facility (UDF) inventory for flood modeling. Hazus-MH flood loss estimates are based upon the UDF point data. Buildings within the flood boundary were imported into Hazus-MH as User Defined Facilities and modeled as points.

Table 17: User Defined Facility Exposure

Class	Hazus-MH Feature	Counts	Exposure
BI	Building Exposure	1,718	$152,954,814
Riverine UDF	Structures Inside 1% Annual Chance Riverine Flood Area	20	$1,731,556

Assumptions

- Flood analysis was performed on Building Inventory. Building Inventory within the flood boundary was imported as User Defined Facilities. The point locations are parcel centroid accuracy.
- The analysis is restricted to the county boundary. Events that occur near the county boundary do not contain loss estimates from adjacent counties.
- The following attributes were defaulted or calculated:
  First Floor Height was set from Foundation Type
  Content Cost was calculated from Building Cost

GEORGIA FORESTRY COMMISSION

A Program of the Georgia Forestry Commission
with support from the U.S. Forest Service

Community Wildfire Protection Plan

An Action Plan for Wildfire Mitigation and Conservation of Natural Resources

McDuffie County

June 26, 2010

Prepared by;
Hal Sharpe, Chief Ranger Warren-McDuffie Counties
Will Fell CWPP Specialist
Georgia Forestry Commission
2088 Warrenton Hwy
Thomson, GA 30824

The following report is a collaborative effort among various entities; the representatives listed below comprise the core decision-making team responsible for this report and mutually agree on the plan's contents:

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PLAN CONTENTS

I. OBJECTIVES

The mission of the following report is to set clear priorities for the implementation of wildfire mitigation in McDuffie County. The plan includes prioritized recommendations for the appropriate types and methods of fuel reduction and structure ignitability reduction that will protect this community and its essential infrastructure. It also includes a plan for wildfire suppression. Specifically, the plan includes community-centered actions that will:

- Educate citizens on wildfire, its risks, and ways to protect lives and properties,
- Support fire rescue and suppression entities,
- Focus on collaborative decision-making and citizen participation,
- Develop and implement effective mitigation strategies, and
- Develop and implement effective community ordinances and codes.

II. COMMUNITY COLLABORATION

An initial meeting was held on May 11th 2009 attended by the following core planning team;

Will Fell	GFC CWPP Specialist
Hal Sharpe	GFC Chief Ranger McDuffie Warren Counties
Bruce Tanner	Fire Chief McDuffie County Fire Department/EMA Director
Don Norton	McDuffie County Manager
Rick Sewell	Thomson Fire Chief
Stephen Sewell	Asst Fire Chief McDuffie County

After an initial discussion of the processes and goals we hope to accomplish with this report, it was decided that we would assess general areas within the wildland urban interface in the two incorporated cities and the county. At the completion of this we would reconvene and discuss and evaluate the completed county wildfire risk assessment. It was further decided that we would provide for mitigation recommendations for McDuffie County. The chiefs of the various county fire departments completed the assessments and we reconvened on June 29th 2009 for the purpose of completing the following:

Risk Assessment	Assessed wildfire hazard risks and prioritized mitigation actions.
Fuels Reduction	Identified strategies for coordinating fuels treatment projects.
Structure Ignitability	Identified strategies for reducing the ignitability of structures within the Wildland interface.
Emergency Management	Forged relationships among local government and fire districts and developed/refined a pre-suppression plan.
Education and Outreach	Developed strategies for increasing citizen awareness and action and to conduct homeowner and community leader workshops.

III. COMMUNITY BACKGROUND AND EXISTING SITUATION

Background

McDuffie County is located on the geological fall line in east central Georgia along the Savannah River basin, thirty-five miles west of Augusta. The county, carved from Warren and Columbia counties in late 1870 by an act of the Georgia General Assembly, was named for George McDuffie, a native Georgian and distinguished lawyer, statesman, governor, and U.S. senator of South Carolina. Although relatively small (260 square miles) and postbellum in its formation, McDuffie County boasts a sizeable colonial and political heritage that predates the county's official inception by at least a century.

Early History

In 1767 royal governor James Wright granted to Quakers from Pennsylvania and North Carolina 12,000 acres of land along the present northern boundaries of McDuffie County. Three years later, the town of Wrightsborough was formally established and named in honor of the governor. Wright intended the settlement to be a buffer zone between the Creek and Cherokee Indians and the growing settlement of St. Paul Parish (present-day Augusta). It suffered accordingly. Indian hostilities, the American Revolution (1775-83), and the expansion of slavery all threatened the physical and economic safety of the neutral Quaker township. By 1800 most of its original families had relocated to the Midwest. Wrightsborough existed as a settlement into the twentieth century, if in name only, as its remaining inhabitants gradually assimilated into the religious, social, and civic norms of the predominantly Scots-Irish region.

Economy and Natural Resources

Traveling through Wrightsborough in the colonial period, Quaker naturalist William Bartram observed that the terrain was "chiefly a plain of high forests, savannas, and cane swamps," and its soil "a deep, rich, dark mould, on a deep stratum of redish brown tenacious clay." In fact, the area that became McDuffie County boasted natural resources and a wealthy agricultural heritage that defined its economic and political life until fairly recently. Gold, discovered along the Little River in the early nineteenth century, provided one of the area's first industries. It was cotton, however, that created the bulk of McDuffie County's wealth during that century. The county's geographic location placed it among the most productive cotton land in the state, and slave culture and cotton production flourished. By 1880, 64 percent of the county's 9,449 residents were African American.

While agrarian culture has changed radically since 1950, historical and natural resources continue to define twenty-first-century McDuffie County. Recreation and tourism are prominent factors in the contemporary economic and cultural life of the county, as are the kaolin and timber industries.

People and Places

The county's political tradition reflects its agrarian roots. Inheriting the passion, political philosophy, and agrarian advocacy of George McDuffie and nearby political heroes Robert Toombs and Alexander Stephens, U.S. senator Thomas E. Watson is remembered as McDuffie County's most prominent statesman. Born in 1856, the "Sage of Hickory Hill" or "Sage of McDuffie County" earned fame at the bar and became an eloquent national advocate for the embattled farmer and common man during the New South period. Other notable McDuffie County statesmen and jurists include Augustus Wright and Randall Evans Jr., a judge for Georgia's court of appeals.

Heritage tourism is fueled by the county's abundant historical sites, which include Hickory Hill (Watson's home in Thomson), the Wrightsboro Historic District, Wrightsboro Church, and the Rock House. Wrightsboro Church, dating to 1810, stands on the site of the old Quaker meetinghouse. Near the Wrightsboro community is the Rock House, a stone farmhouse built in 1785. The Rock House is thought to be the oldest dwelling in Georgia with its original architecture intact.

According to the 2000 U.S. census, McDuffie County's population is 21,231 (60.8 percent white, 37.5 percent black, and 1.3 percent Hispanic). There are two incorporated cities in the county, Thomson and Dearing. Thomson, with a population of 6,828, was incorporated in 1854 and established as the county seat in 1870. Dearing, with a population of 441, was named for William Dearing, a board member of the Georgia Railroad and Banking Company. The town was incorporated in 1910.

Fans of blues music make annual pilgrimages to the Blind Willie McTell Blues Festival, which honors the Thomson native "Blind Willie" McTell. Outdoor sports, including hunting and fishing, attract professional competition and revolve around nearby Clarks Hill Lake and its bordering wildlife management areas. Two local equestrian events, the Belle Meade Hunt and the Pine Top Horse Trials, bring to the county international exposure.

(Courtesy *New Georgia Encyclopedia*)

Existing Situation

McDuffie County, straddling the fall line just west of the rapidly developing Augusta Metropolitan area, is still largely rural in character outside of Thomson. The county as a whole remains 58% forested. The southern portion of the county, roughly south of Hwy 278, is part of the upper coastal plain and supports some agriculture along with timber and kaolin mining. The northern half of the county located in the fall line sand hills and piedmont region is still largely forested and is seeing residential development spreading out from the traditional population centers. This is particularly true along the reaches of Clarks Hill Lake with many miles of shoreline within the northeast quadrant of the county and on the sand hills east of Thomson as the Augusta metro area spills west.

The main population center and county seat, Thomson sits near the center of the county while the only other incorporated town, Dearing lies to the east. There are several other small communities scattered throughout the county. Like many counties in this area, McDuffie has become increasingly popular to residents from Augusta seeking rural refuge along Interstate 20 building homes among the wildlands, many unfamiliar with the inherent risks of wildfire.

McDuffie County is well protected by a countywide fire department with six stations distributed throughout the county. The Georgia Forestry Commission maintains a unit with wildland fire suppression capability located west of Thomson on Hwy 278 with good access to most of the county.

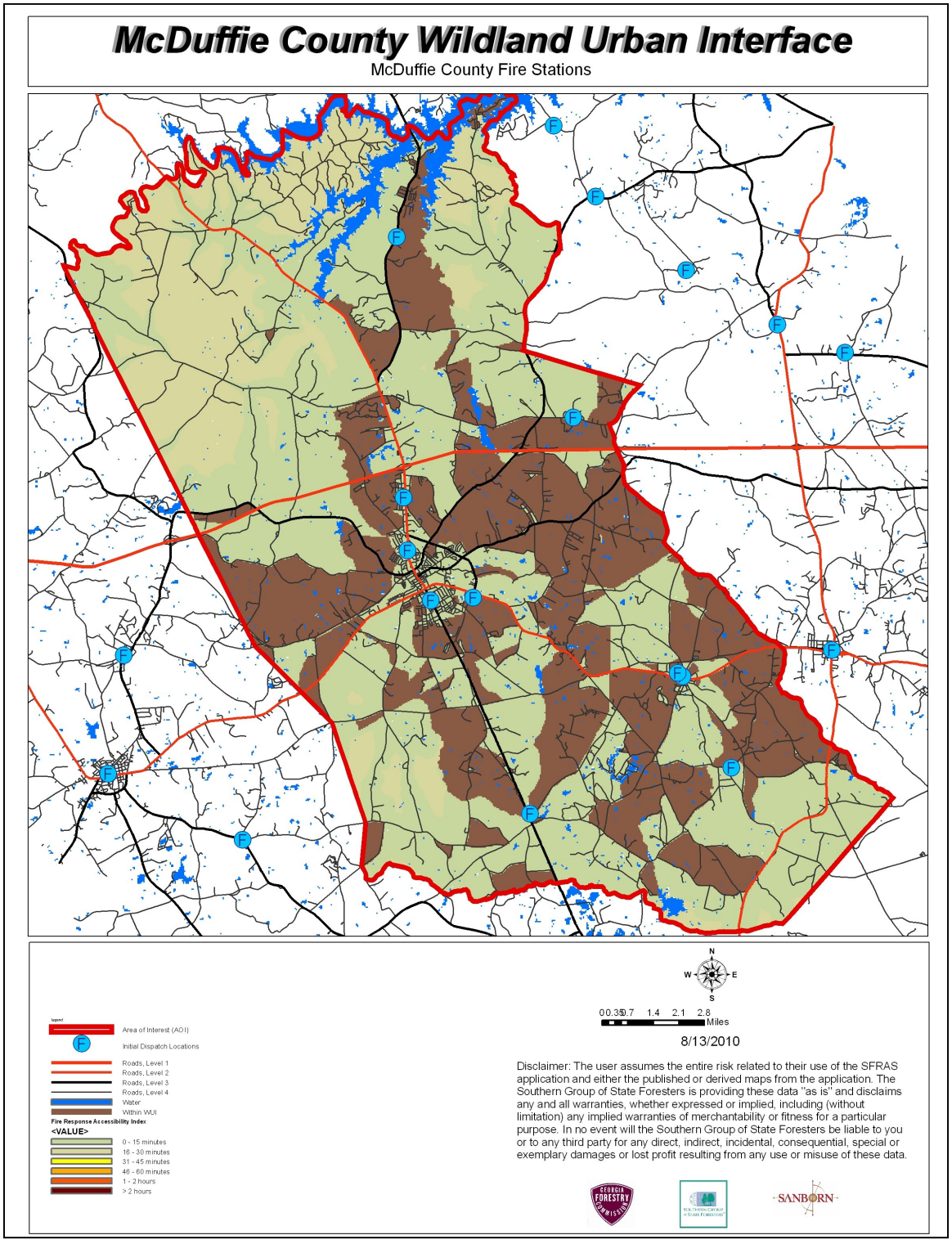
While there are modern pressurized water systems available in the two incorporated cities and much of the area adjacent to Thomson, there is still a significant area outside these regions lacking ready access to hydrants and dependable water sources.

Over the past 50 years, McDuffie County has averaged about 39 reported wildland fires per year with a pronounced peak during the months of February, March and April. These fires have burned an average of 179 acres annually. Of this annual acreage burned, 64% was lost during the above three months. Since the advent of the outdoor burning permit law about 20 years ago, the average numbers of fires have slightly increased, from 39 to 44 per year, but the acres lost have decreased from 179 to 111 annually.

The leading causes of these fires over the past 20 years, was debris burning causing 50% of the fires and 46% of the acres burned. More detailed records over the past six years show that almost half of these debris fires originated from escapes from household or residential debris burning.

Georgia Forestry Commission Wildfire Records show that in the past seven years, 12 homes have been lost or damaged by wildfire in McDuffie County resulting in estimated losses of $318,500 along with eight outbuildings valued at $6,200. According to reports during this period 183 homes have been directly or indirectly threatened by these fires. Additionally 13 vehicles valued at $109,200 and 17 pieces of other mechanized equipment suffered damages estimated at $201,200. This is a significant loss of non timber property attributed to wildfires in McDuffie County.

IV. COMMUNITY BASE MAP



V. COMMUNITY WILDFIRE RISK ASSESSMENT

The Wildland-Urban Interface

There are many definitions of the Wildland-Urban Interface (WUI), however from a fire management perspective it is commonly defined as an area where structures and other human development meet or intermingles with undeveloped wildland or vegetative fuels. As fire is dependent on a certain set of conditions, the National Wildfire Coordinating Group has defined the wildland-urban interface as a set of conditions that exists in or near areas of wildland fuels, regardless of ownership. This set of conditions includes type of vegetation, building construction, accessibility, lot size, topography and other factors such as weather and humidity. When these conditions are present in certain combinations, they make some communities more vulnerable to wildfire damage than others. This "set of conditions" method is perhaps the best way to define wildland-urban interface areas when planning for wildfire prevention, mitigation, and protection activities.

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

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

2. "Intermix" wildland-urban interface areas are places where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated rural homes or an area that is just beginning to go through the transition from rural to urban land use.

3. "Island" wildland-urban interface, also called occluded interface, are areas of wildland within predominately urban or suburban areas. As cities or subdivisions grow, islands of undeveloped land may remain, creating remnant forests. Sometimes these remnants exist as parks, or as land that cannot be developed due to site limitations, such as wetlands.
(courtesy *Fire Ecology and Wildfire Mitigation in Florida* 2004)

As it was felt there was considerable variation in risk from the cities of Thomson and Dearing to the rural areas of McDuffie County, it was decided by the CORE assessment team to assess the cities separately from the rural areas of the county.

The wildland fire risk assessments were conducted in 2009 by the McDuffie County, Thomson and Dearing Fire Departments and returned an average score of 73, placing McDuffie County overall in the "Moderate" hazard range. See the assessed factors and the summary of the assessments following.

The risk assessment instrument used to evaluate wildfire hazards to McDuffie County's WUI was the Hazard and Wildfire Risk Assessment Scoresheet. The instrument takes into consideration accessibility, vegetation (based on fuel models), topography, roofing assembly, building construction, and availability of fire protection resources, placement of gas and electric utilities, and additional rating factors. The following factors contributed to the wildfire hazard score for McDuffie County:

Cities of Thomson and Dearing (Low to Moderate Risk)

- Long, narrow roads
- Lack of defensible space in wildland interface areas.
- Lack of defensible space in some areas
- High occurrence of wildfires in several locations.
- Closeness of adjacent structures – risk of fire spread from structure to structure

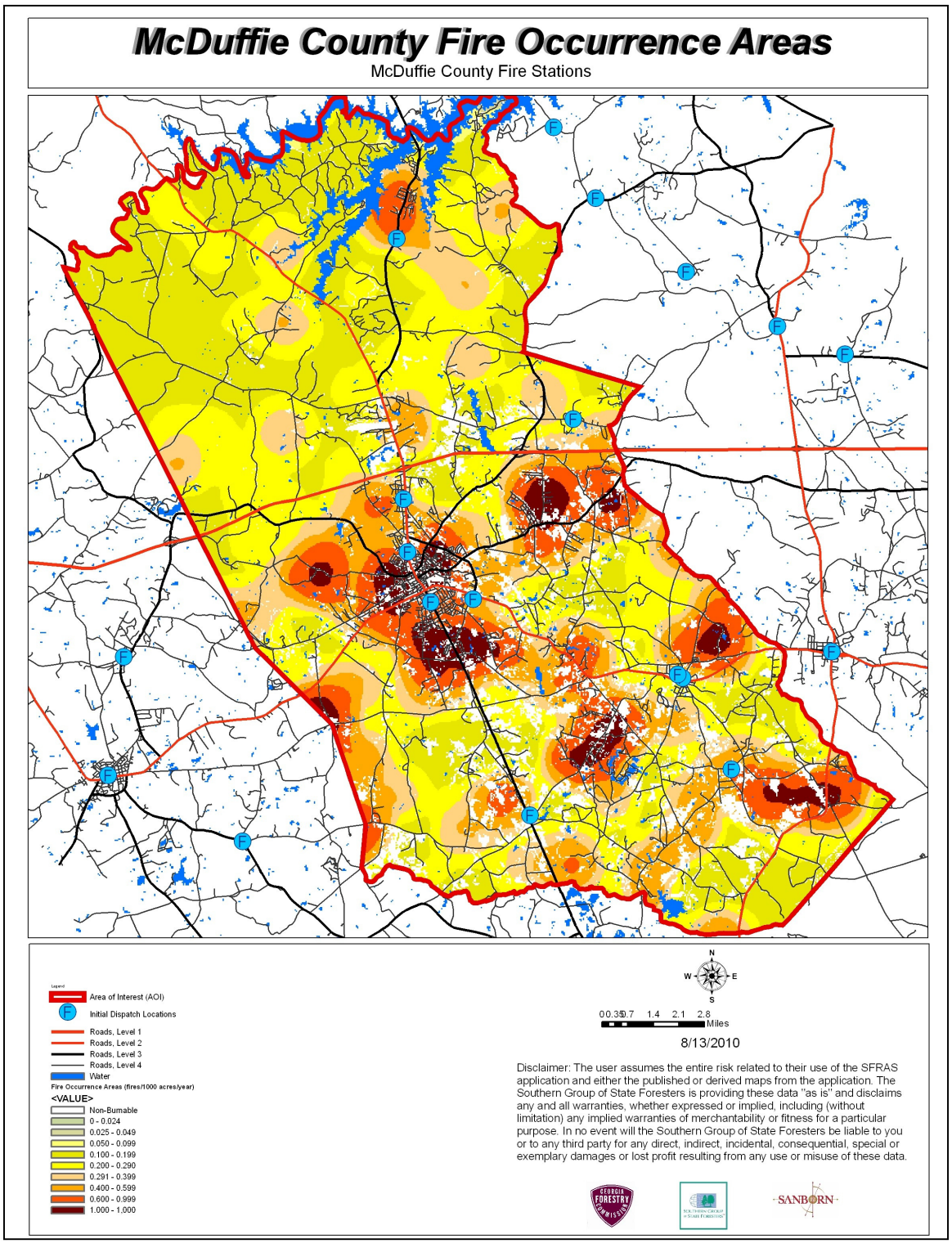
Rural Unincorporated McDuffie County (High Risk)

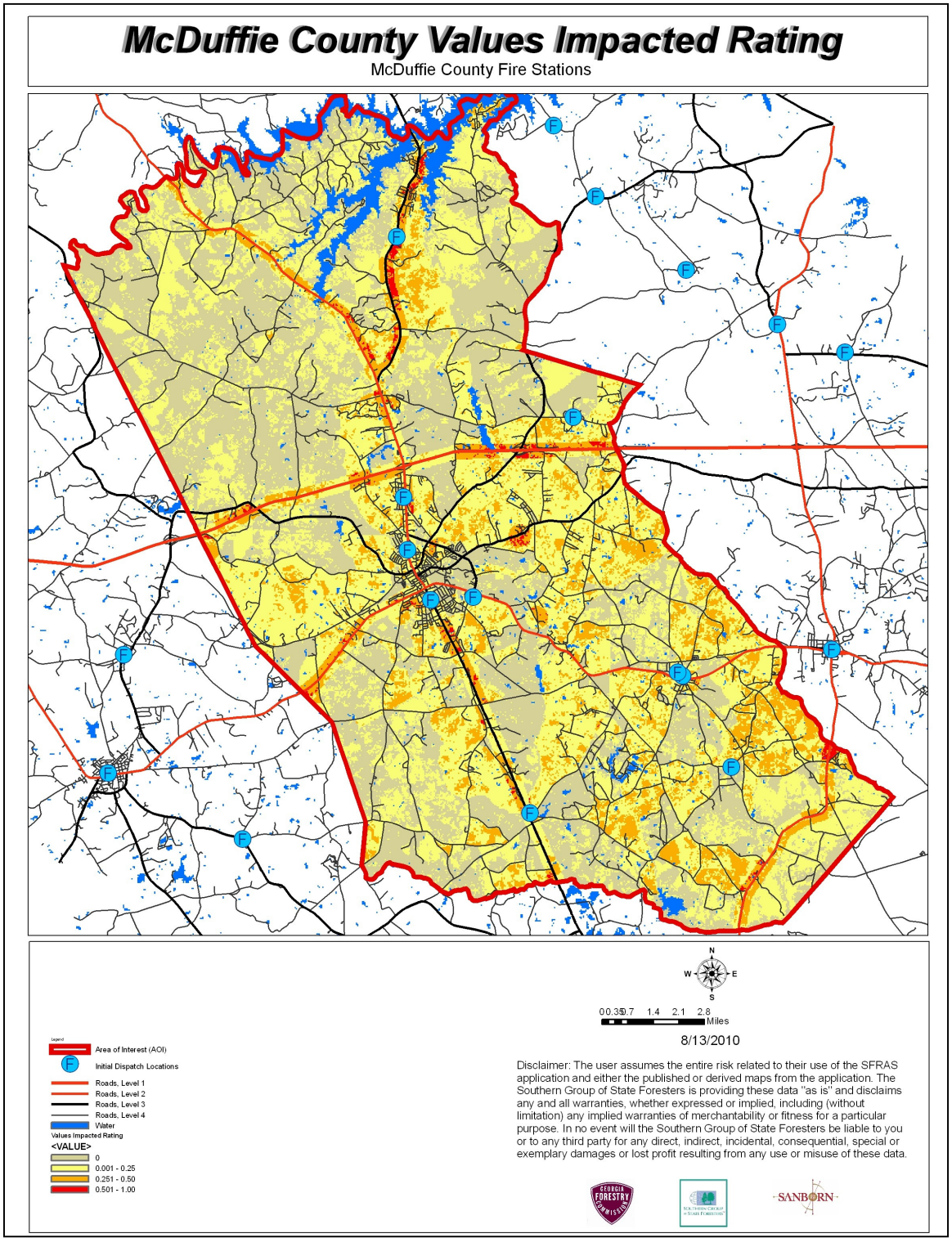
- Distance from staffed fire stations.
- Long narrow driveways inaccessible to equipment.
- Minimal defensible space around structures
- Homes with wooden siding and roofs with heavy accumulations of vegetative debris.
- No pressurized or non-pressurized water systems available off major roads
- Above ground utilities
- Large, adjacent areas of forest or wildlands
- Undeveloped lots comprising half the total lots in many rural communities.
- High occurrence of wildfires in the several locations
- Dead end roads with inadequate turn arounds.

Hazard and Wildfire Assessment summary;

Area	Community Access	Surrounding Vegetation	Building Construction	Fire Protection	Utilities	Additional Factors	Score	Hazard Assessment
McDuffie	13	30	25	14	6	25	113	High
Thomson	11	15	5	2	4	11	48	Low
Dearing	18	15	5	7	4	11	60	Moderate

VI. COMMUNITY HAZARDS MAPS




McDuffie County Values Impacted Rating
McDuffie County Fire Stations
N
W
E
S
0 0.35 0.7 1.4 2.1 2.8
Miles
8/13/2010
Legend
Area of Interest (AOI)
Initial Dispatch Locations
Roads, Level 1
Roads, Level 2
Roads, Level 3
Roads, Level 4
Water
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0.251 - 0.50
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VII. PRIORITIZED MITIGATION RECOMMENDATIONS

Executive Summary

As Georgia continues to see increased growth from other areas seeking less crowded and warmer climes, new development will occur more frequently on forest and wildland areas. The County will have an opportunity to significantly influence the wildland fire safety of new developments. It is important that new development be planned and constructed to provide for public safety in the event of a wildland fire emergency.

Over the past 20 years, much has been learned about how and why homes burn during wildland fire emergencies. Perhaps most importantly, case histories and research have shown that even in the most severe circumstances, wildland fire disasters can be avoided. Homes can be designed, built and maintained to withstand a wildfire even in the absence of fire services on the scene. The national Firewise Communities program is a national awareness initiative to help people understand that they don't have to be victims in a wildfire emergency. The National Fire Protection Association has produced two standards for reference: NFPA 1144 Standard for Reducing Structure Ignition Hazards from Wildland Fire. 2008 Edition and NFPA 1141 Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas.

When new developments are built in the Wildland/Urban Interface, a number of public safety challenges may be created for the local fire services: (1) the water supply in the immediate areas may be inadequate for fire suppression; (2) if the development is in an outlying area, there may be a longer response time for emergency services; (3) in a wildfire emergency, the access road(s) may need to simultaneously support evacuation of residents and the arrival of emergency vehicles; and (4) when wildland fire disasters strike, many structures may be involved simultaneously, quickly exceeding the capability of even the best equipped fire departments.

The following recommendations were developed by the McDuffie County CWPP Core team as a result of surveying and assessing fuels and structures and by conducting meetings and interviews with county and city officials. A priority order was determined based on which mitigation projects would best reduce the hazard of wildfire in the assessment area.

Proposed Community Hazard and Structural Ignitability Reduction Priorities

Primary Protection for Community and Its Essential Infrastructure		
Treatment Area	Treatment Types	Treatment Method(s)
1. All Structures	Create minimum of 30-feet of defensible space**	Educate homeowners to trim shrubs and vines to 30 feet from structures, trim overhanging limbs, replace flammable plants near homes with less flammable varieties, remove vegetation around chimneys.
2. Applicable Structures	Reduce structural ignitability**	Educate owners to clean flammable vegetative material from roofs and gutters, store firewood appropriately, install skirting around raised structures, store water hoses for ready access, replace pine straw and mulch around plantings with less flammable landscaping materials.
3. Community Clean-up Day	Cutting, mowing, pruning**	Work with Homeowners Associations to encourage to cut, prune, and mow vegetation in shared community spaces where needed.
4. Road Signage	At Replacement	New road signage with minimum 4 inch reflective lettering on non flammable poles. Dead end (no outlet or turn-around) should be prominently tagged.
5. Road Access	Identify needed road improvements	As roads are upgraded, widen to minimum standards with at least 50 foot diameter cul de sacs.
6. Codes and Ordinances	Examine existing codes and ordinances.	Amend and enforce existing building codes as they relate to skirting, propane tank locations, public nuisances (trash/debris on property), Property address marking standards and other relevant concerns As zoning, planning and subdivision ordinances are updated include fire department and emergency services input in the design of these.

Proposed Community Wildland Fuel Reduction Priorities		
Treatment Area	Treatment Types	Treatment Method(s)
1. Adjacent WUI Lands	Reduce hazardous fuels	Encourage prescribed burning for private landowners and industrial timberlands particularly adjacent to residential areas
2. Corps of Engineers Lands	Assess need for fuel treatments	Work with CoE land management to assess the need for fuel reduction activities adjacent to residential areas on the lake.
3. Existing Fire Lines	Reduce hazardous fuels	Clean and re-harrow existing lines.
Proposed Improved Community Wildland Fire Response Priorities		
1. Water Sources	Dry Hydrants	Inspect, maintain and improve access to existing dry hydrants. Add signage along road to mark the hydrants
2. Water Supply	County Water System	Add additional water lines and pressurized hydrants to existing system in areas of developement.
3. Fire Stations	Equipment	Wildland hand tools. Lightweight Wildland PPE Gear. Larger capacity hose. Investigate need for "brush" trucks and tankers.
4. Personnel	Training	Obtain Wildland Fire Suppression training for Fire Personnel.
**Actions to be taken by homeowners and community stakeholders		

Proposed Education and Outreach Priorities

1. Conduct "How to Have a Firewise Home" Workshop for McDuffie County Residents
Set up and conduct a workshop for homeowners that teach the principles of making homes and properties safe from wildfire. Topics for discussion include defensible space, landscaping, building construction, etc. Workshop will be scheduled for evenings or weekends when most homeowners are available and advertised through local media outlets. Distribute materials promoting firewise practices and planning through local community and governmental meetings.
2. Conduct "Firewise" Workshop for Community Leaders
Arrange for GFC Firewise program to work with local community leaders and governmental officials on the importance of "Firewise Planning" in developing ordinances and codes as the county as the need arises. Identify "Communities at Risk" within the county for possible firewise community recognition.
3. Spring Clean-up Event
Conduct clean-up event every spring involving the Georgia Forestry Commission, McDuffie County Fire Departments and community residents. Set up information table with educational materials and refreshments. Initiate the event with a morning briefing by GFC Firewise coordinator and local fire officials detailing plans for the day and safety precautions. Activities to include the following: • Clean flammable vegetative material from roofs and gutters • Trim shrubs and vines to 30 feet away from structures • Trim overhanging limbs • Clean hazardous or flammable debris from adjacent properties Celebrate the work with a community cookout, with Community officials, GFC and McDuffie County Fire Departments discussing and commending the work accomplished.

4. Informational Packets
Develop and distribute informational packets to be distributed by permitting authorities, code enforcement, realtors, libraries, tax assessors office and insurance agents. Included in the packets are the following: • Be Firewise Around Your Home • Firewise Guide to Landscape and Construction • Firewise Communities USA Bookmarks
5. Wildfire Protection Display
Create and exhibit a display for the general public at the various fire stations rotating around during fire prevention month. Display can be independent or combined with the Georgia Forestry Commission display.
6. Local Press
Invite the Thomson and Augusta news media to community “Firewise” functions for news coverage and regularly submit press releases documenting wildfire risk improvements in McDuffie County.
7. County Festivals
Create a Firewise information booth at the various festivals such as the Willie McTell Blues Festival.

VIII. ACTION PLAN

Roles and Responsibilities

The following roles and responsibilities have been developed to implement the action plan:

Role	Responsibility
Hazardous Fuels and Structural Ignitability Reduction	
McDuffie County Wildland Urban Interface Fire Council	Create this informal team or council comprised of residents, GFC officials, McDuffie County, Thomson and Dearing Fire Department officials, a representative from the cities and county governments and the EMA Director for McDuffie County. Meet periodically to review progress towards mitigation goals, appoint and delegate special activities, work with federal, state, and local officials to assess progress and develop future goals and action plans. Work with residents to implement projects and firewise activities.
Key Messages to focus on	1 Defensible Space and Firewise Landscaping 2 Debris Burning Safety 3 Firewise information for homeowners 4 Prescribed burning benefits
Communications objectives	1 Create public awareness for fire danger and defensible space issues 2 Identify most significant human cause fire issues 3 Enlist public support to help prevent these causes 4 Encourage people to employ fire prevention and defensible spaces in their communities.
Target Audiences	1 Homeowners 2 Forest Landowners and users 3 Civic Groups 4 School Groups
Methods	1 News Releases 2 Personal Contacts 3 Key messages and prevention tips 4 Visuals such as signs, brochures and posters

Spring Clean-up Day	
Event Coordinator	Coordinate day's events and schedule, catering for cookout, guest attendance, and moderate activities the day of the day of the event.
Event Treasurer	Collect funds from residents to cover food, equipment rentals, and supplies.
Publicity Coordinator	Advertise event through neighborhood newsletters, letters to officials, and public service announcements (PSAs) for local media outlets. Publicize post-event through local paper and radio PSAs.
Work Supervisor	Develop volunteer labor force of community residents, develop labor/advisory force from Georgia Forestry Commission, McDuffie County Fire Departments, and Emergency Management Agency. Procure needed equipment and supplies. In cooperation with local city and county officials, develop safety protocol. Supervise work and monitor activities for safety the day of the event.

Funding Needs

The following funding is needed to implement the action plan:

Project	Estimated Cost	Potential Funding Source(s)
1. Create a minimum of 30 feet of defensible space around structures	Varies	Residents will supply labor and fund required work on their own properties.
2. Reduce structural ignitability by cleaning flammable vegetation from roofs and gutters, appropriately storing firewood, installing skirting around raised structures, storing water hoses for ready access, and using firewise landscaping around homes	Varies	Residents will supply labor and fund required work on their own properties.
3. Amend codes and ordinances to provide better driveway access, increased visibility of house numbers, properly stored firewood, minimum defensible space brush clearance, required Class A roofing materials and skirting around raised structures, planned maintenance of community lots.	No Cost	To be adopted by city and county governments as needed.
4. Spring Cleanup Day	Varies	Community Business Donations.
5. Fuel Reduction Activities	$35 / Acre	FEMA & USFS Grants

POTENTIAL FUNDING SOURCES:
As funding is questionable in these times of tight government budgets and economic uncertainty, unconventional means should be identified whereby the need for funding can be reduced or eliminated.
Publications / Brochures –

- FIREWISE materials are available for cost of shipping only at www.firewise.org.
- Another source of mitigation information can be found at www.nfpa.org.
- Access to reduced cost or free of charge copy services should be sought whereby publications can be reproduced.
- Free of charge public meeting areas should be identified where communities could gather to be educated regarding prevention and firewise principles.

Mitigation –

- Community Protection Grant:
    - USFS sponsored prescribed burn program. Communities with at risk properties that lie within 3 miles of the USFS border may apply with the GFC to have their forest land prescribed burned free of charge.
- FEMA Mitigation Policy MRR-2-08-01: through GEMA - Hazard Mitigation Grant Program (HMGP) and Pre Disaster Mitigation (PDM)
    - To provide technical and financial assistance to local governments to assist in the implementation of long term cost effective hazard mitigation measures.
    - This policy addresses wildfire mitigation for the purpose of reducing the threat to all-risk structures through creating defensible space, structural protection through the application of ignition resistant construction, and limited hazardous fuels reduction to protect life and property.
    - With a complete and registered plan (addendum to the State plan) counties can apply for pre- mitigation funding. They will also be eligible for HMGP if the county is declared under a wildfire disaster.
- GFC - Plowing and burning assistance can be provided through the Georgia Forestry Commission as a low cost option for mitigation efforts.
- Individual Homeowners –
    - In most cases of structural protection ultimately falls on the responsibility of the community and the homeowner. They will bear the cost; yet they will reap the benefit from properly implemented mitigation efforts.
    - GEMA Grant - PDM (See above)Ultimately it is our goal to help the communities by identifying the communities threatened with a high risk to wildfire and educate those communities on methods to implement on reducing those risks.

Assessment Strategy

To accurately assess progress and effectiveness for the action plan, the McDuffie County WUI Fire Council will implement the following:

- Annual wildfire risk assessment will be conducted to re-assess wildfire hazards and prioritize needed actions.
- Mitigation efforts that are recurring (such as mowing, burning, clearing of defensible space) will be incorporated into an annual renewal of the original action plan.
- Mitigation efforts that could not be funded in the requested year will be incorporated into the annual renewal of the original action plan.
- Continuing educational and outreach programs will be conducted and assessed for effectiveness. Workshops will be evaluated based on attendance and post surveys that are distributed by mail 1 month and 6 months following workshop date.
- The McDuffie County WUIFC will publish an annual report detailing mitigation projects initiated and completed, progress for ongoing actions, funds received, funds spent, and in-kind services utilized. The report will include a "state of the community" section that critically evaluates mitigation progress and identifies areas for improvement. Recommendations will be incorporated into the annual renewal of the action plan.
- An annual survey will be distributed to residents soliciting information on individual mitigation efforts on their own property (e.g., defensible space). Responses will be tallied and reviewed at the next McDuffie County WUIFC meeting. Needed actions will be discussed and delegated.

This plan should become a working document that is shared by local, state, and federal agencies that will use it to accomplish common goals. An agreed-upon schedule for meeting to review accomplishments, solve problems, and plan for the future should extend beyond the scope of this plan. Without this follow up this plan will have limited value

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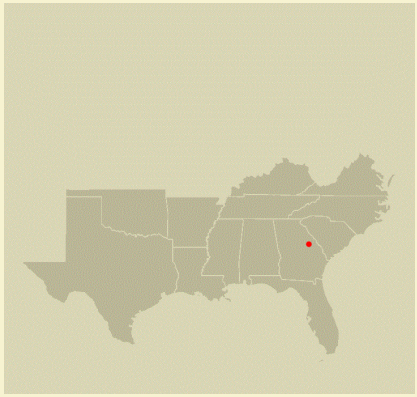
Southern Wildfire Risk Assessment Summary Report

Glascock County



Report was generated using
www.southernwildfirerisk.com

Report version: 4.0

Report generated: 4/20/2022

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Users should also note that property boundaries included in any product do not represent an on-the-ground survey suitable for legal, engineering, or surveying purposes. They represent only the approximate relative locations.

Introduction

Welcome to the Southern Wildfire Risk Assessment Summary Report.

This tool allows users of the Professional Viewer application of the Southern Wildfire Risk Assessment (SWRA) web Portal (SouthWRAP) to define a specific project area and summarize wildfire related information for this area. A detailed risk summary report is generated using a set of predefined map products developed by the Southern Wildfire Risk Assessment project which have been summarized explicitly for the user defined project area. The report is generated in MS WORD format.

The report has been designed so that information from the report can easily be copied and pasted into other specific plans, reports, or documents depending on user needs. Examples include, but are not limited to, Community Wildfire Protection Plans, Local Fire Plans, Fuels Mitigation Plans, Hazard Mitigation Plans, Homeowner Association Risk Assessments, and Forest Management or Stewardship Plans. Formats and standards for these types of reports vary from state to state across the South, and accordingly SouthWRAP provides the SWRA information in a generic risk report format to facilitate use in any type of external document. The SouthWRAP Risk Summary Report also stands alone as a viable depiction of current wildfire risk conditions for the user defined project area.

SouthWRAP provides a consistent, comparable set of scientific results to be used as a foundation for wildfire mitigation and prevention planning in the South.

Results of the assessment can be used to help prioritize areas in the state where mitigation treatments, community interaction and education, or tactical analyses might be necessary to reduce risk from wildfires.

The SouthWRAP products included in this report are designed to provide the information needed to support the following key priorities:

- Identify areas that are most prone to wildfire
- Identify areas that may require additional tactical planning, specifically related to mitigation projects and Community Wildfire Protection Planning
- Provide the information necessary to justify resource, budget and funding requests
- Allow agencies to work together to better define priorities and improve emergency response, particularly across jurisdictional boundaries
- Define wildland communities and identify the risk to those communities
- Increase communication and outreach with local residents and the public to create awareness and address community priorities and needs
- Plan for response and suppression resource needs
- Plan and prioritize hazardous fuel treatment programs

To learn more about the SWRA project or to create a custom summary report, go to www.southernwildfirerisk.com.

Products

Each product in this report is accompanied by a general description, table, chart and/or map. A list of available SouthWRAP products in this report is provided in the following table.

SouthWRAP Product	Description
Wildland Urban Interface (WUI)	Depicts where humans and their structures meet or intermix with wildland fuel
WUI Risk Index	Represents a rating of the potential impact of a wildfire on people and their homes
Community Protection Zones	Represents those areas designated as primary and secondary priorities for community protection planning
Burn Probability	Probability of an area burning given current landscape conditions, percentile weather, historical ignition patterns and historical fire prevention and suppression efforts
Characteristic Rate of Spread	Represents the speed with which a fire moves in a horizontal direction across the landscape
Characteristic Flame Length	Represents the distance between the tip and base of the flame
Characteristic Fire Intensity Scale	Quantifies the potential fire intensity for an area by orders of magnitude
Fire Type - Extreme	Represents the potential fire type (surface or canopy) under extreme percentile weather conditions
Surface Fuels	Contains the parameters needed to compute surface fire behavior characteristics
Dozer Operability Rating	Level of difficulty to operate a dozer in an area based on limitations associated with slope and vegetation type

Wildland Urban Interface

Description

The South is one of the fastest growing regions in the nation, with an estimated population growth of 1.5 million people per year. The South also consistently has the highest number of wildfires per year. Population growth is pushing housing developments further into natural and forested areas where most of these wildfires occur. This situation puts many lives and communities at risk each year.

In particular, the expansion of residential development from urban centers out into rural landscapes, increases the potential for wildland fire threat to public safety and the potential for damage to forest resources and dependent industries. This increase in population across the region will impact counties and communities that are located within the Wildland Urban Interface (WUI).

The WUI is described as the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative fuels. Population growth within the WUI substantially increases the risk from wildfire.

For the **Glascock County** project area, it is estimated that **3,084** people or **99.8 % percent** of the total project area population (**3,091)** live within the WUI.

The Wildland Urban Interface (WUI) layer reflects housing density depicting where humans and their structures meet or intermix with wildland fuels.

WUI housing density is categorized based on the standard Federal Register and U.S. Forest Service SILVIS data set categories, long considered a de facto standard for depicting WUI. However, in the SWRA WUI data the number of housing density categories is extended to provide a better gradation of housing distribution to meet specific requirements for fire protection planning activities. While units of the actual data set are in *houses per sq. km*., the data is presented as the *number of houses per acre* to aid with interpretation and use by fire planners in the South.

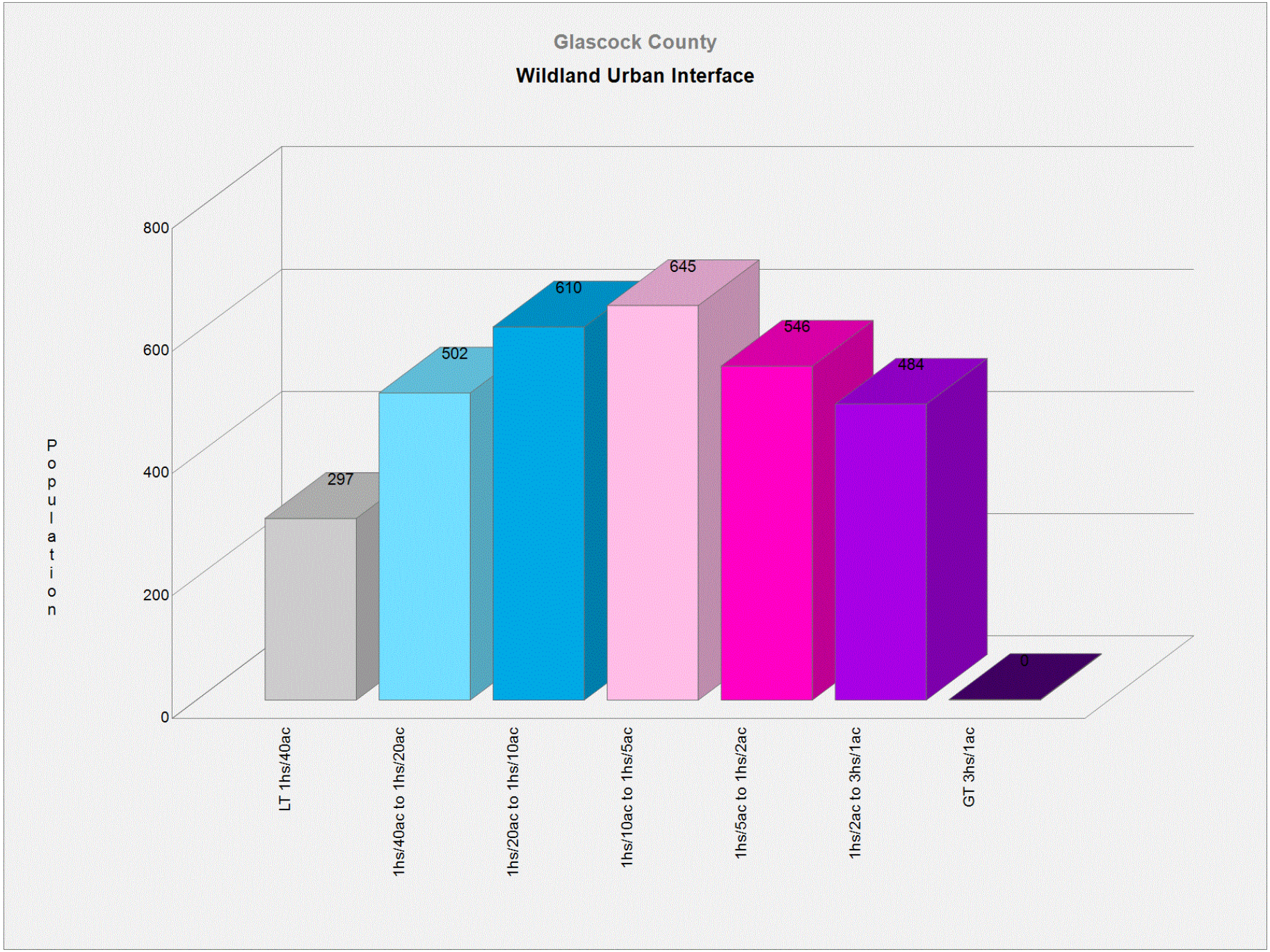
In the past, conventional wildland urban interface data sets, such as USFS SILVIS, have been used to reflect these concerns. However, USFS SILVIS and other existing data sources do not provide the level of detail for defining population living in the wildland as needed by Southern state WUI specialists and local fire protection agencies.

The new SWRA WUI 2012 dataset is derived using advanced modeling techniques based on the SWRA Where People Live (housing density) dataset and 2012 LandScan population count data available from the Department of Homeland Security, HSIP Freedom Data Set. WUI is simply a subset of the Where People Live dataset. The primary difference between the WPL and WUI is that populated areas surrounded by sufficient non-burnable areas (i.e. interior urban areas) are removed from the Where People Live data set, as these areas are not expected to be directly impacted by a wildfire. Simply put, the SWRA WUI is the SWRA WPL data with the urban core areas removed.

Data is modeled at a 30-meter cell resolution, which is consistent with other SWRA layers. The following table shows the total population for each WUI area within the project area.

WUI – Population and Acres

Housing Density	WUI Population	Percent of WUI Population	WUI Acres	Percent of WUI Acres
LT 1hs/40ac	297	9.6 %	16,642	50.3 %
1hs/40ac to 1hs/20ac	502	16.3 %	8,560	25.9 %
1hs/20ac to 1hs/10ac	610	19.8 %	4,576	13.8 %
1hs/10ac to 1hs/5ac	645	20.9 %	2,258	6.8 %
1hs/5ac to 1hs/2ac	546	17.7 %	775	2.3 %
1hs/2ac to 3hs/1ac	484	15.7 %	250	0.8 %
GT 3hs/1ac	0	0.0 %	0	0.0 %
Total	**3,084**	**100.0 %**	33,061	100.0 %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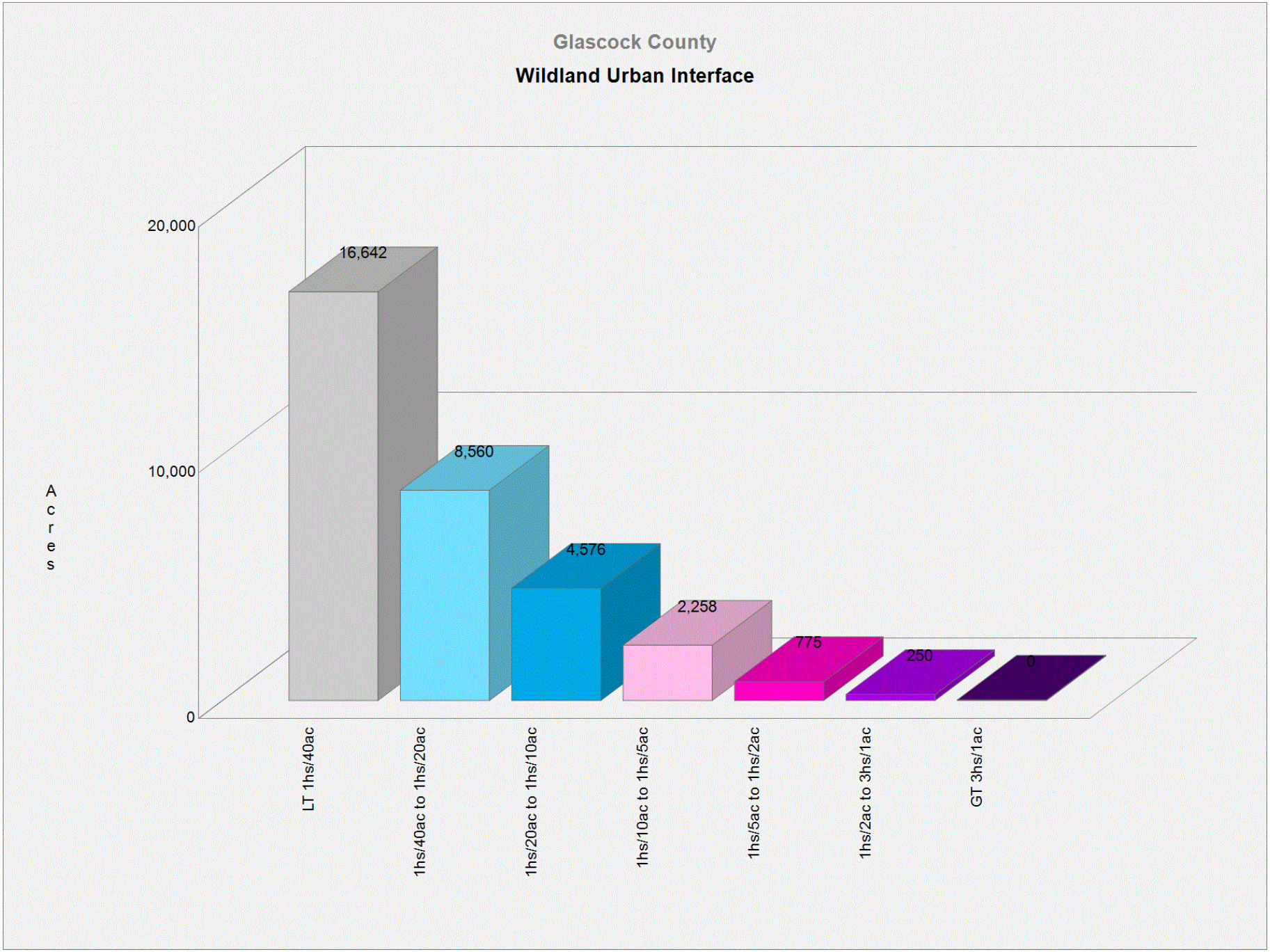
Wildland Urban Interface
Population
800
600
400
200
0
297
502
610
645
546
484
0
LT 1hs/40ac
1hs/40ac to 1hs/20ac
1hs/20ac to 1hs/10ac
1hs/10ac to 1hs/5ac
1hs/5ac to 1hs/2ac
1hs/2ac to 3hs/1ac
GT 3hs/1ac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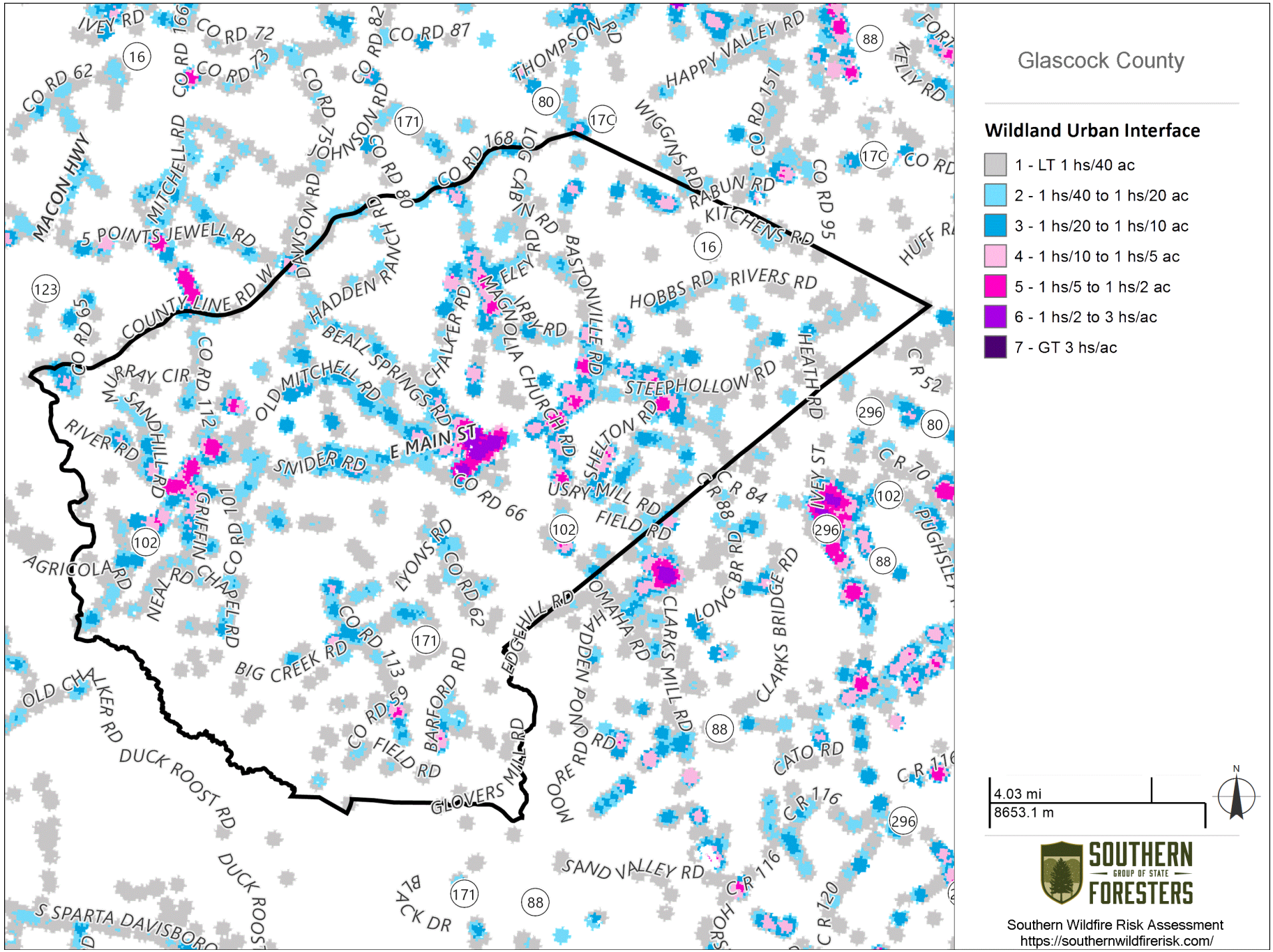
Wildland Urban Interface
Acres
20,000
10,000
0
16,642
8,560
4,576
2,258
775
250
0
LT 1hs/40ac
1hs/40ac to 1hs/20ac
1hs/20ac to 1hs/10ac
1hs/10ac to 1hs/5ac
1hs/5ac to 1hs/2ac
1hs/2ac to 3hs/1ac
GT 3hs/1ac


Glascock County
Wildland Urban Interface
1 - LT 1 hs/40 ac
2 - 1 hs/40 to 1 hs/20 ac
3 - 1 hs/20 to 1 hs/10 ac
4 - 1 hs/10 to 1 hs/5 ac
5 - 1 hs/5 to 1 hs/2 ac
6 - 1 hs/2 to 3 hs/ac
7 - GT 3 hs/ac
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IVEY RD
CO RD 72
CO RD 73
CO RD 62
CO RD 166
CO RD 82
CO RD 87
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MACON HWY
MITCHELL RD
5 POINTS JEWELL RD
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JOHNSON RD
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USRY MILL RD
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OMAHA RD
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CLARKS MILL RD
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CO RD 113
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HADDEN POND RD
MOORE RD
OLD CHALKER RD
DUCK ROOST RD
CO RD 59
FIELD RD
GLOVERS MILL RD
CATO RD
C R 116
SAND VALLEY RD
S SPARTA DAVISBORO
BLACK DR
C R 120
16
17C
80
88
123
171
102
296

WUI Risk Index

Description

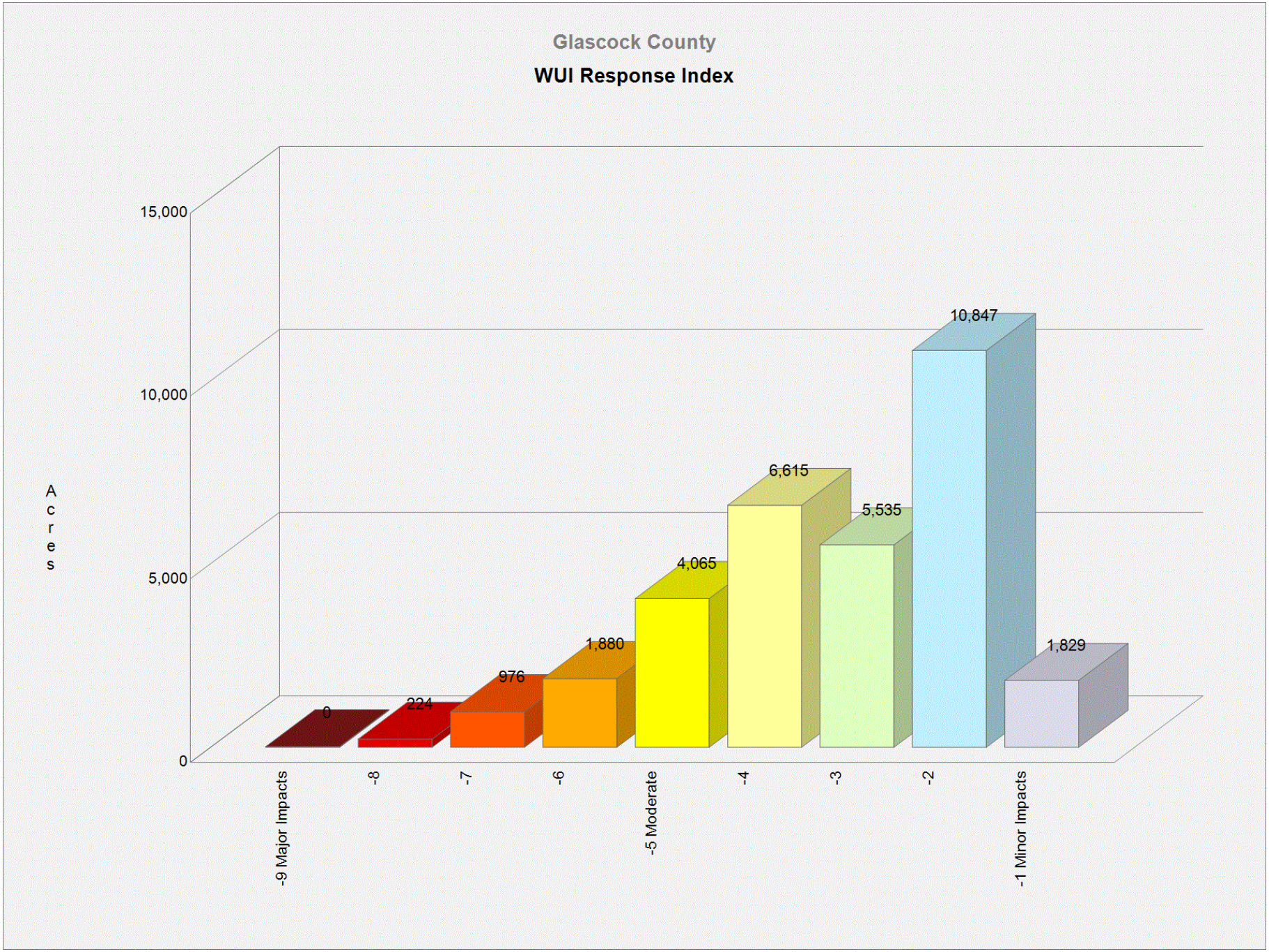
The Wildland Urban Interface (WUI) Risk Index layer is a rating of the potential impact of a wildfire on people and their homes. The key input, WUI, reflects housing density (houses per acre) consistent with Federal Register National standards. The location of people living in the Wildland Urban Interface and rural areas is key information for defining potential wildfire impacts to people and homes.

The WUI Risk Rating is derived using a Response Function modeling approach. Response functions are a method of assigning a net change in the value to a *resource* or *asset* based on susceptibility to fire at different intensity levels, such as flame length. The range of values is from -1 to -9, with -1 representing the least negative impact and -9 representing the most negative impact. For example, areas with high housing density and high flame lengths are rated -9 while areas with low housing density and low flame lengths are rated -1.

To calculate the WUI Risk Rating, the WUI housing density data was combined with Flame Length data and response functions were defined to represent potential impacts. The response functions were defined by a team of experts based on values defined by the SWRA Update Project technical team. By combining flame length with the WUI housing density data, you can determine where the greatest potential impact to homes and people is likely to occur.

Fire intensity data is modeled to incorporate penetration into urban fringe areas so that outputs better reflect real world conditions for fire spread and impact in fringe urban interface areas. With this enhancement, houses in urban areas adjacent to wildland fuels are incorporated into the WUI risk modeling. All areas in the South have the WUI Risk Index calculated consistently, which allows for comparison and ordination of areas across the entire region. Data is modeled at a 30-meter cell resolution, which is consistent with other SWRA layers.

Class	Acres	Percent
-9 Major Impacts	0	0.0 %
-8	224	0.7 %
-7	976	3.1 %
-6	1,880	5.9 %
-5 Moderate	4,065	12.7 %
-4	6,615	20.7 %
-3	5,535	17.3 %
-2	10,847	33.9 %
-1 Minor Impacts	1,829	5.7 %
Total	**31,971**	**100.0 %**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WUI Response Index
Acres
15,000
10,000
5,000
0
0
224
976
1,880
4,065
6,615
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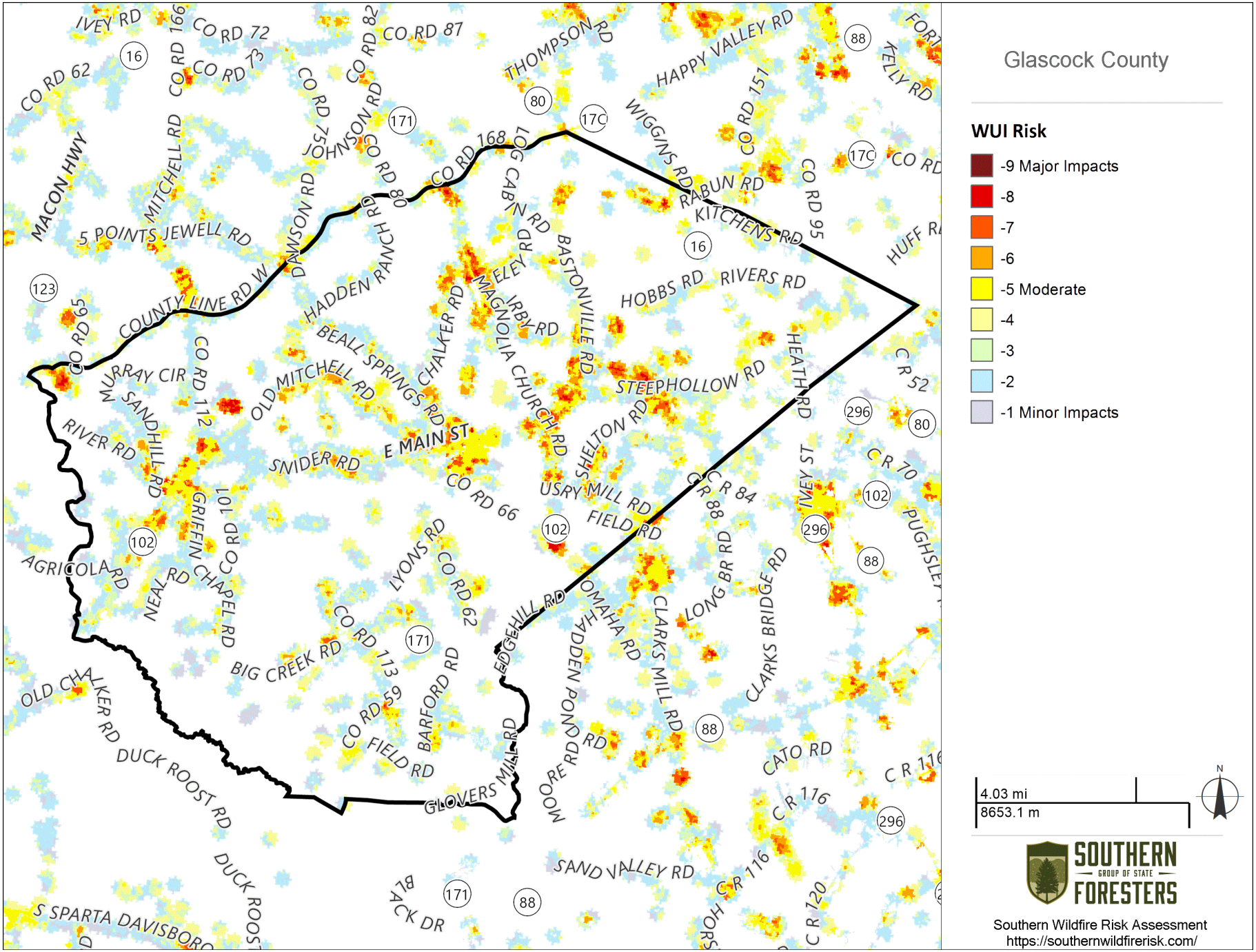
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Community Protection Zones

Description

Community Protection Zones (CPZ) represent those areas considered highest priority for mitigation planning activities. CPZs are based on an analysis of the Where People Live housing density data and surrounding fire behavior potential. Rate of Spread data is used to determine the areas of concern around populated areas that are within a 2-hour fire spread distance. This is referred to as the Secondary CPZ.

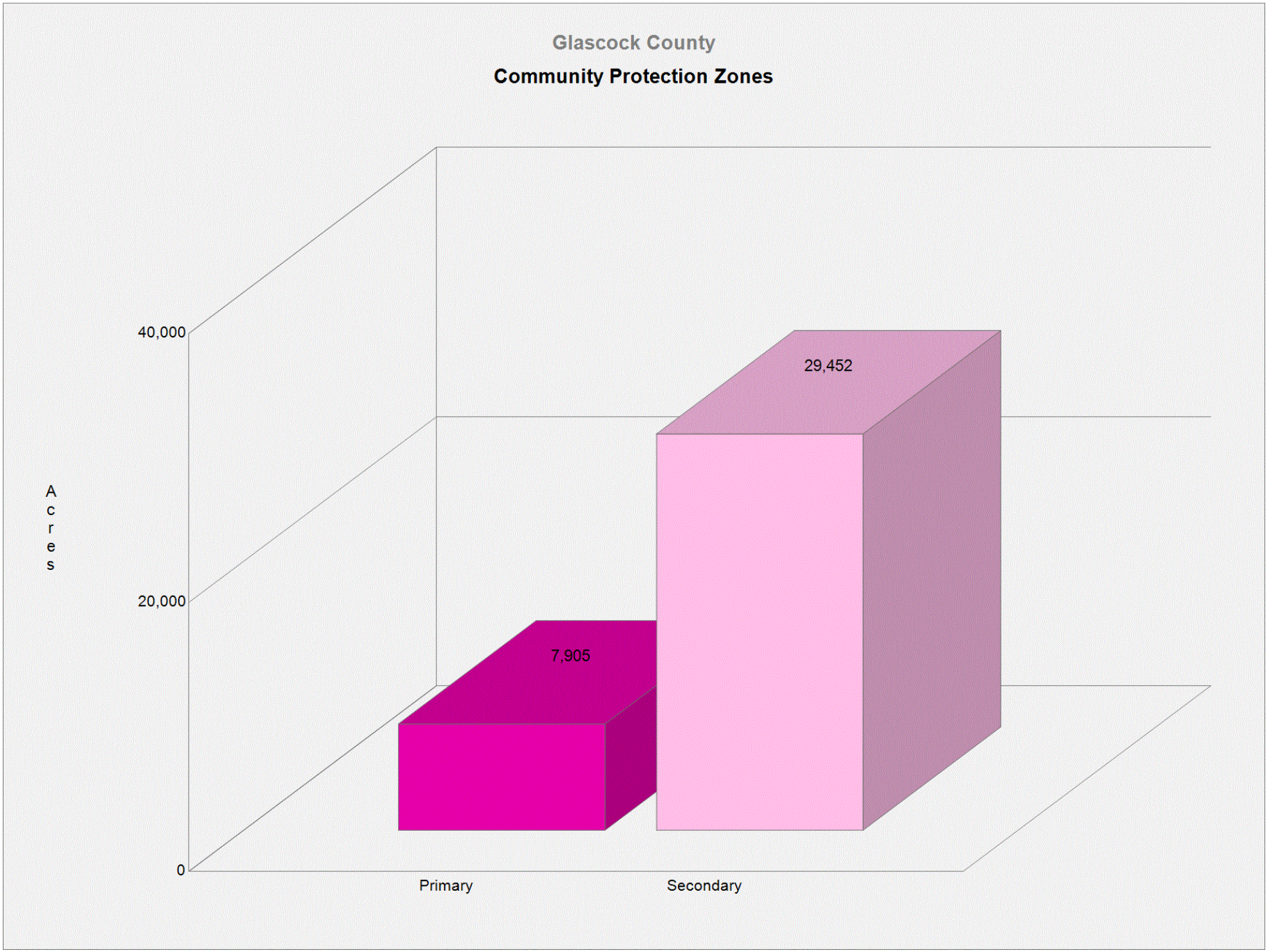
General consensus among fire planners is that for fuel mitigation treatments to be effective in reducing wildfire hazard, they must be conducted within a close distance of a community. In the South, the WUI housing density has been used to reflect populated areas in place of community boundaries (Primary CPZ). This ensures that CPZs reflect where people are living in the wildland, not jurisdictional boundaries.

Secondary CPZs represent a variable width buffer around populated areas that are within a 2-hour fire spread distance. Accordingly, CPZs will extend farther in areas where rates of spread are greater and less in areas where minimal rate of spread potential exists. Secondary CPZ boundaries inherently incorporate fire behavior conditions.

Primary CPZs reflect areas with a predefined housing density, such as greater than 1 house per 20 acres. Secondary CPZs are the areas around Primary CPZs within a 2 hour fire spread distance.

All areas in the South have the CPZs calculated consistently, which allows for comparison and ordination of areas across the entire region. Data is modeled at a 30-meter cell resolution, which is consistent with other SWRA layers.

Class	Acres	Percent
Primary	7,905	21.2 %
Secondary	29,452	78.8 %
Total	**37,357**	**100.0 %**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40,000
20,000
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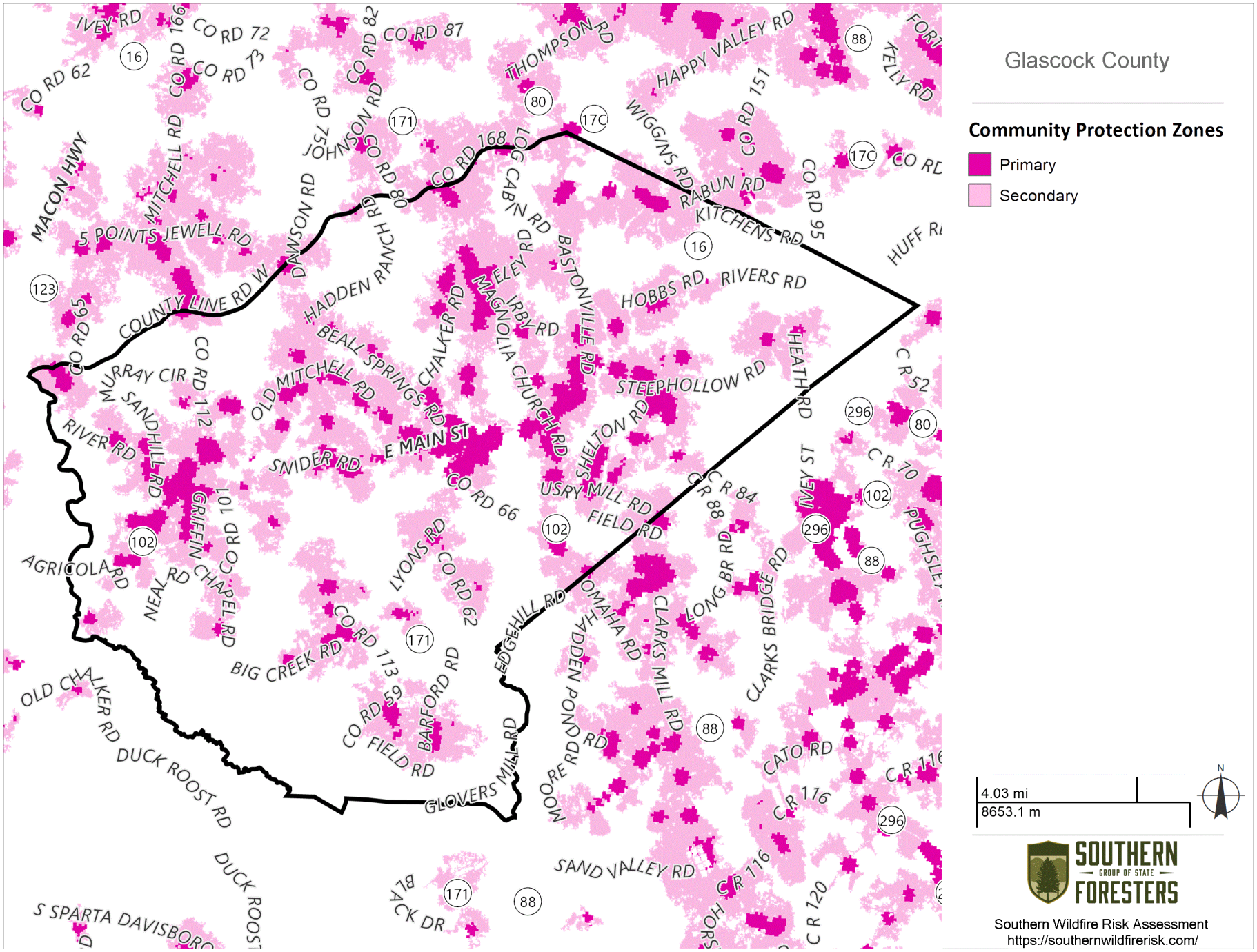
Acres
29,452
7,905
Primary
Secondary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CATO RD
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BLACK DR
S SPARTA DAVISBORO
C R 120

Burn Probability

Description

The Burn Probability (BP) layer depicts the probability of an area burning given current landscape conditions, percentile weather, historical ignition patterns and historical fire prevention and suppression efforts.

Describe in more detail, it is the tendency of any given pixel to burn, given the static landscape conditions depicted by the LANDFIRE Refresh 2008 dataset (as resampled by FPA), contemporary weather and ignition patterns, as well as contemporary fire management policies (entailing considerable fire prevention and suppression efforts).

The BP data does not, and is not intended to, depict fire-return intervals of any vintage, nor do they indicate likely fire footprints or routes of travel. Nothing about the expected shape or size of any actual fire incident can be interpreted from the burn probabilities. Instead, the BP data, in conjunction with the Fire Program Analysts FIL layers, are intended to support an actuarial approach to quantitative wildfire risk analysis (e.g., see Thompson et al. 2011).

Values in the Burn Probability (BP) data layer indicate, for each pixel, the number of times that cell was burned by an FSim-modeled fire, divided by the total number of annual weather scenarios simulated. Burn probability raster data was generated using the large fire simulator - FSim - developed for use in the Fire Program Analysis (FPA) project. FSim uses historical weather data and current landcover data for discrete geographical areas (Fire Planning Units - FPUs) and simulates fires in these FPUs. Using these simulated fires, an overall burn probability and marginal burn probabilities at four fire intensities (flame lengths) are returned by FSim for each 270m pixel in the FPU.

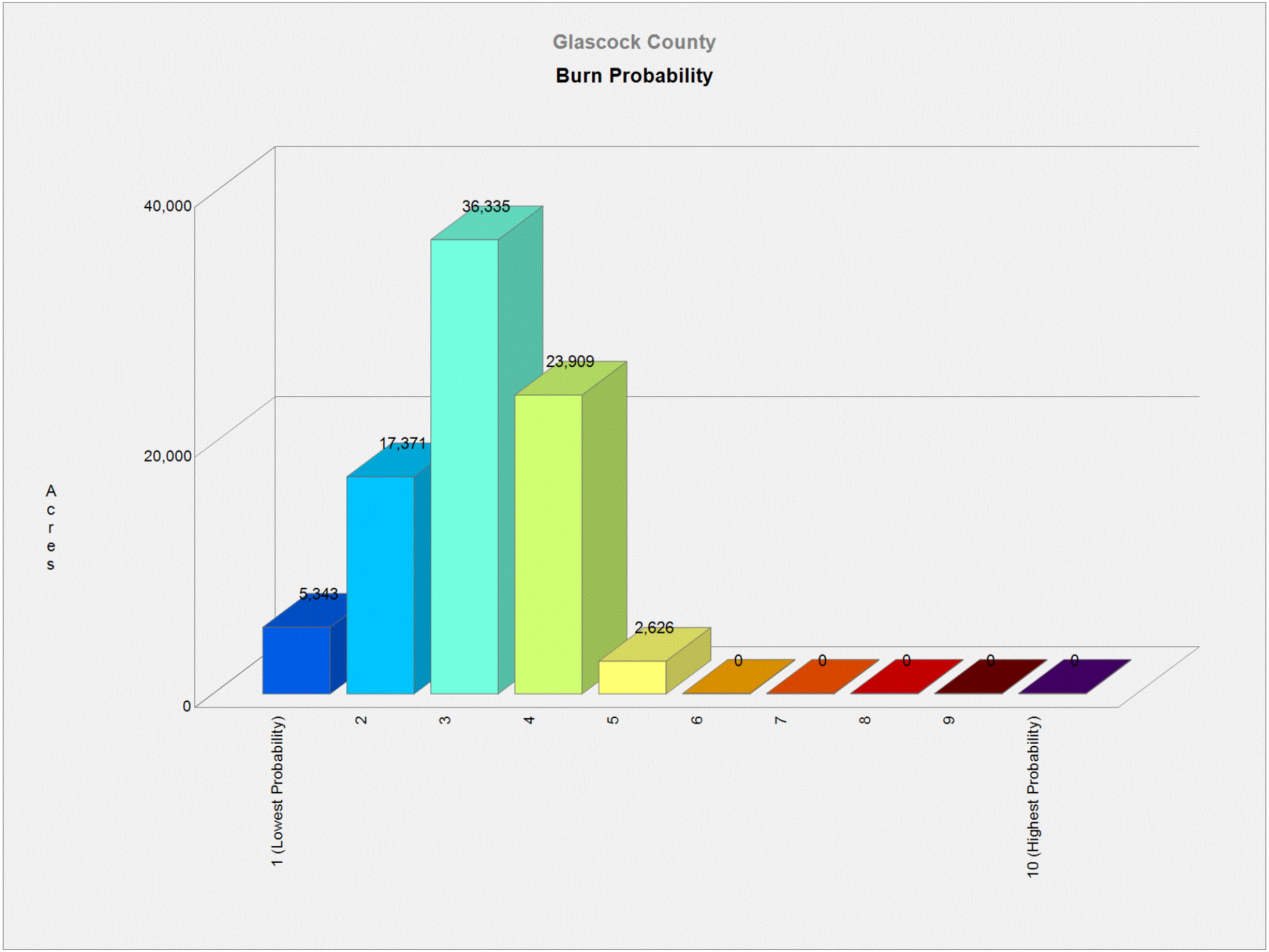
The fire growth simulations, when run repeatedly with different ignition locations and weather streams, generate burn probabilities and fire behavior distributions at each landscape location (i.e., cell or pixel). Results are objectively evaluated through comparison with historical fire patterns and statistics, including the mean annual burn probability and fire size distribution, for each FPU. This evaluation is part of the FSim calibration process for each FPU, whereby simulation inputs are adjusted until the slopes of the historical and modeled fire size distributions are similar and the modeled average burn probability falls within an acceptable range of the historical reference value (i.e., the 95% confidence interval for the mean).

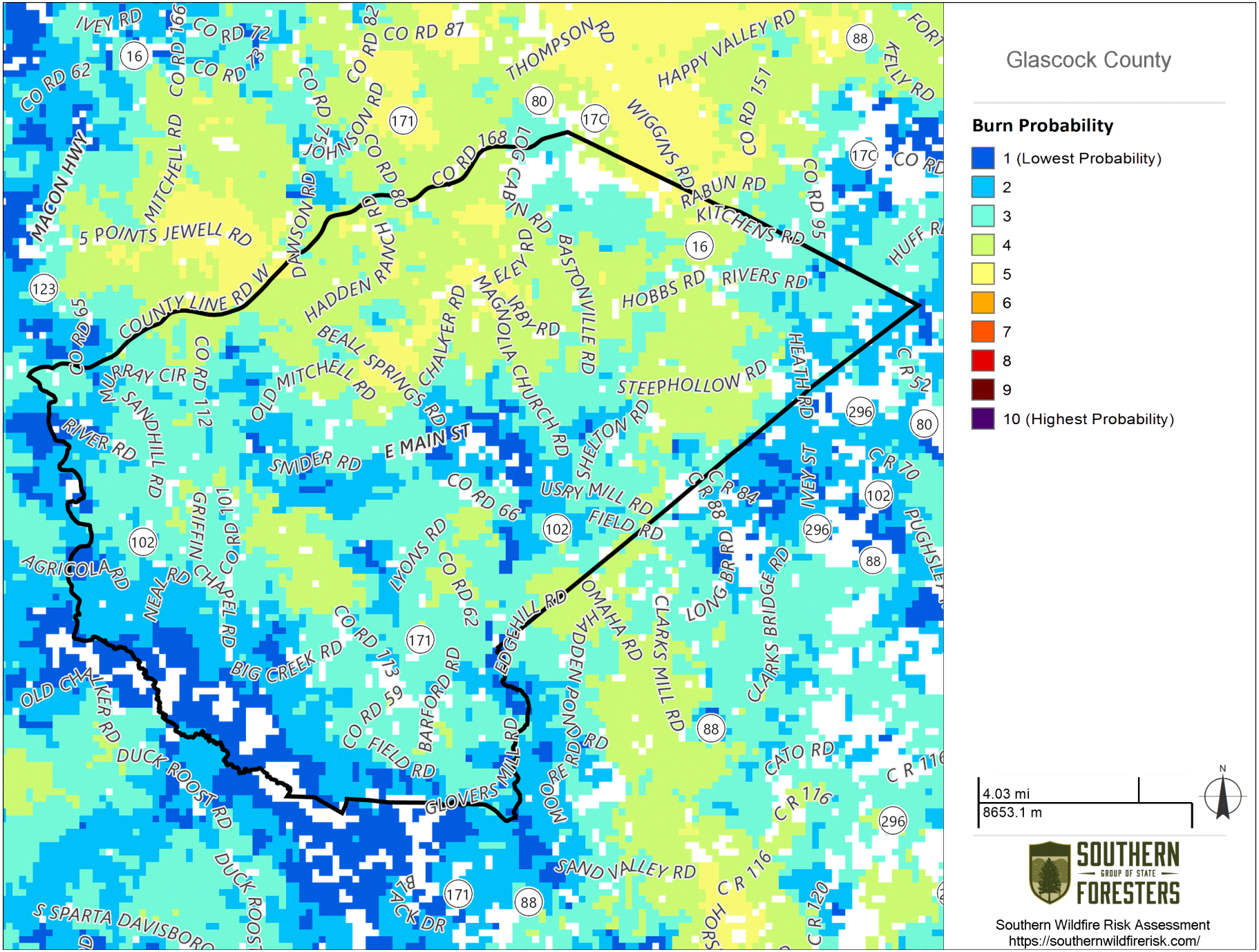
Please refer to the metadata available for this dataset for a detailed description of the data processing methods, assumptions and references that pertain to the development of this data. This information is available from the USFS Missoula Fire Sciences Laboratory.

Please refer to the web site link in the report References to obtain more detailed descriptions of FPA and the related data products such as Burn Probability.

Burn Probability replaces the Wildland Fire Susceptibility Index (WFSI) layer developed in the original SWRA project completed in 2005.

Class	Acres	Percent
1	5,343	6.2 %
2	17,371	20.3 %
3	36,335	42.5 %
4	23,909	27.9 %
5	2,626	3.1 %
6	0	0.0 %
7	0	0.0 %
8	0	0.0 %
9	0	0.0 %
10	0	0.0 %
Total	**85,584**	**100.0 %**


Glascock County
Burn Probability
Acres
40,000
20,000
0
5,343
17,371
36,335
23,909
2,626
0
0
0
0
0
1 (Lowest Probability)
2
3
4
5
6
7
8
9
10 (Highest Probability)

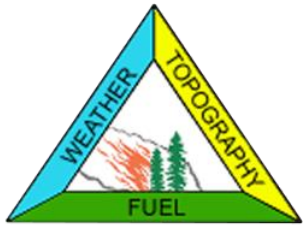

Glascock County
Burn Probability
1 (Lowest Probability)
2
3
4
5
6
7
8
9
10 (Highest Probability)
4.03 mi
8653.1 m
N
SOUTHERN GROUP OF STATE FORESTERS
Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/
IVEY RD
CO RD 72
CO RD 62
CO RD 82
CO RD 87
THOMPSON RD
HAPPY VALLEY RD
KELLY RD
MACON HWY
MITCHELL RD
5 POINTS JEWELL RD
JOHNSON RD
CO RD 80
CO RD 168
LOG CABIN RD
WIGGINS RD
CO RD 151
RABUN RD
KITCHENS RD
CO RD 95
HUFF RD
DAWSON RD
HADDEN RANCH RD
ELEY RD
BASTONVILLE RD
HOBBS RD
RIVERS RD
COUNTY LINE RD W
CO RD 59
MURRAY CIR
W SANDHILL RD
CO RD 112
OLD MITCHELL RD
BEALL SPRINGS RD
CHALKER RD
MAGNOLIA CHURCH RD
IRBY RD
STEEPHOLLOW RD
HEATH RD
C R 52
RIVER RD
SNIDER RD
E MAIN ST
SHELTON RD
C R 70
IVEY ST
USRY MILL RD
FIELD RD
C R 84
C R 88
PUGHSLEY
GRIFFIN CHAPEL RD
CO RD 101
CO RD 66
LYONS RD
CO RD 62
AGRICOLA RD
NEAL RD
EDGEHILL RD
OMAHA RD
LONG BR RD
CLARKS BRIDGE RD
CO RD 173
BIG CREEK RD
BARFORD RD
CLARKS MILL RD
OLD CHALKER RD
CO RD 59
CO FIELD RD
DUCK ROOST RD
GLOVERS MILL RD
MOORE RD
CATO RD
C R 116
C R 716
SAND VALLEY RD
C R 120
S SPARTA DAVISBORO
BLACK DR
16
17C
80
171
123
102
296
88

Fire Behavior

Description

Fire behavior is the manner in which a fire reacts to the following environmental influences:

1. **Fuels**
2. **Weather**
3. **Topography**



Fire behavior characteristics are attributes of wildland fire that pertain to its spread, intensity, and growth. Fire behavior characteristics utilized in the Southern Wildfire Risk Assessment (SWRA) include fire type, rate of spread, flame length and fire intensity scale. These metrics are used to determine the potential fire behavior under different weather scenarios. Areas that exhibit moderate to high fire behavior potential can be identified for mitigation treatments, especially if these areas are in close proximity to homes, business, or other assets.

Fuels

The SWRA includes composition and characteristics for both surface fuels and canopy fuels. Significant increases in fire behavior will be captured if the fire has the potential to transition from a surface fire to a canopy fire.

Fuel datasets required to compute both surface and canopy fire potential include:

- **Surface Fuels**, generally referred to as fire behavior fuel models, provide the input parameters needed to compute surface fire behavior.
- **Canopy Cover** is the horizontal percentage of the ground surface that is covered by tree crowns. It is used to compute wind reduction factors and shading.
- **Canopy Ceiling Height/Stand Height** is the height above the ground of the highest canopy layer where the density of the crown mass within the layer is high enough to support vertical movement of a fire. A good estimate of canopy ceiling height would be the average height of the dominant and co-dominant trees in a stand. It is used for computing wind reduction to midflame height and spotting distances from torching trees (Fire Program Solutions, L.L.C, 2005).
- **Canopy Base Height** is the lowest height above the ground above which here is sufficient canopy fuel to propagate fire vertically (Scott & Reinhardt, 2001). Canopy base height is a property of a plot, stand, or group of trees, not of an individual tree. For fire modeling, canopy base height is an effective value that incorporates ladder fuel, such as tall shrubs and small trees. Canopy base height is used to determine if a surface fire will transition to a canopy fire.
- **Canopy Bulk Density** is the mass of available canopy fuel per unit canopy volume (Scott & Reinhardt, 2001). Canopy bulk density is a bulk property of a stand, plot, or group of trees, not of an individual tree. Canopy bulk density is used to predict whether an active crown fire is possible.

Weather

Environmental weather parameters needed to compute fire behavior characteristics include 1-hour, 10-hour, and 100-hour timelag fuel moistures, herbaceous fuel moisture, woody fuel moisture, and the 20-foot 10 minute average wind speed. To collect this information, weather influence zones were established across the region. A weather influence zone is an area where for analysis purposes the weather on any given day is considered uniform. Within each weather influence zone, historical daily weather is gathered to compile a weather dataset from which four percentile weather categories are created. The percentile weather categories are intended to represent low, moderate, high, and extreme fire weather days. Fire behavior outputs are computed for each percentile weather category to determine fire potential under different weather scenarios.

The four percentile weather categories include:

- Low Weather Percentile (0 – 15%)
- Moderate Weather Percentile (16 – 90%)
- High Weather Percentile (91 – 97%)
- Extreme Weather Percentile (98 – 100%)

Topography

Topography datasets required to compute fire behavior characteristics are elevation, slope and aspect.

FIRE BEHAVIOR CHARACTERISTICS

Fire behavior characteristics provided in this report include:

- **Characteristic Rate of Spread**
- **Characteristic Flame Length**
- **Characteristic Fire Intensity Scale**
- **Fire Type - Extreme**

Characteristic Rate of Spread

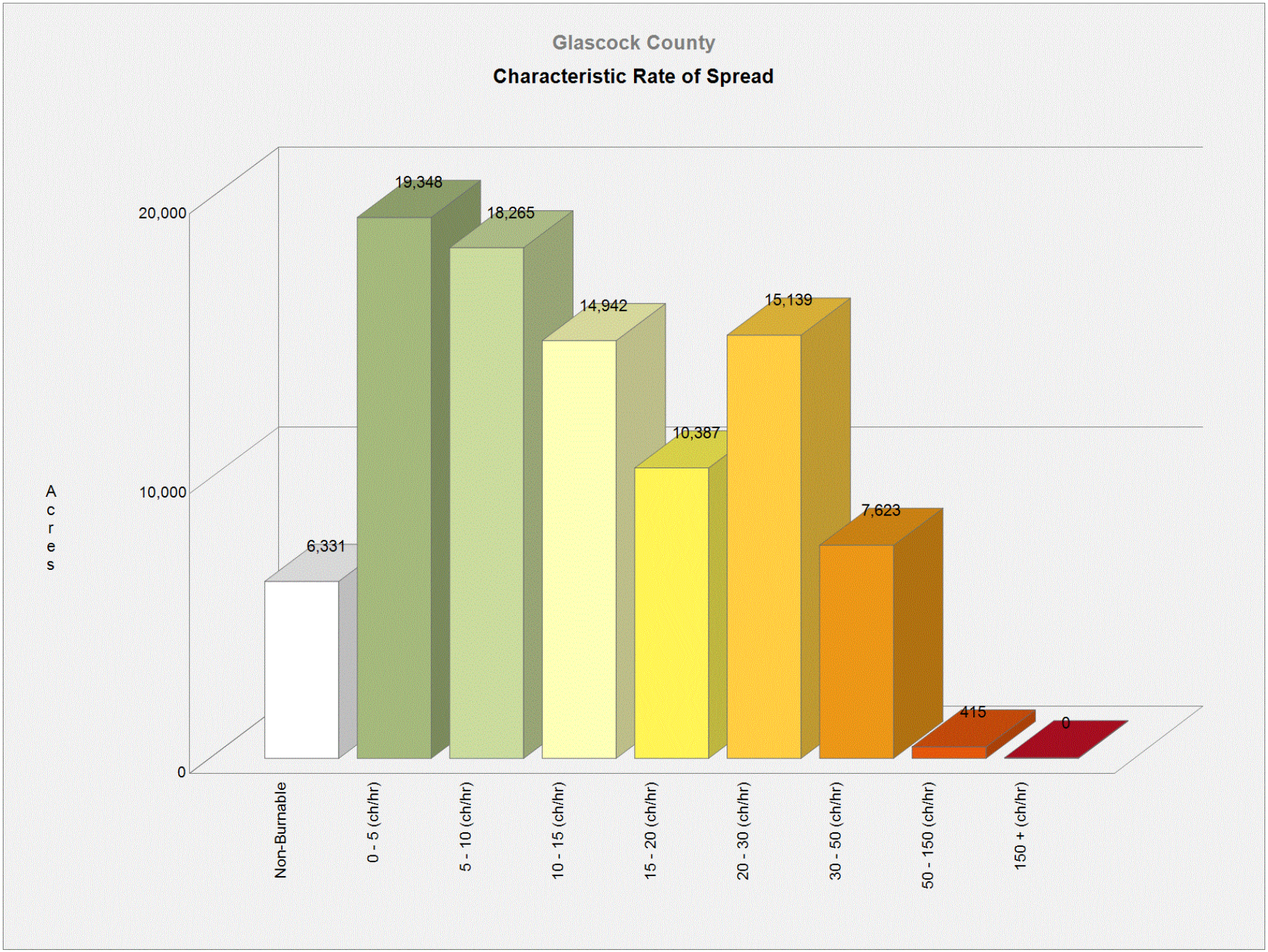
Description

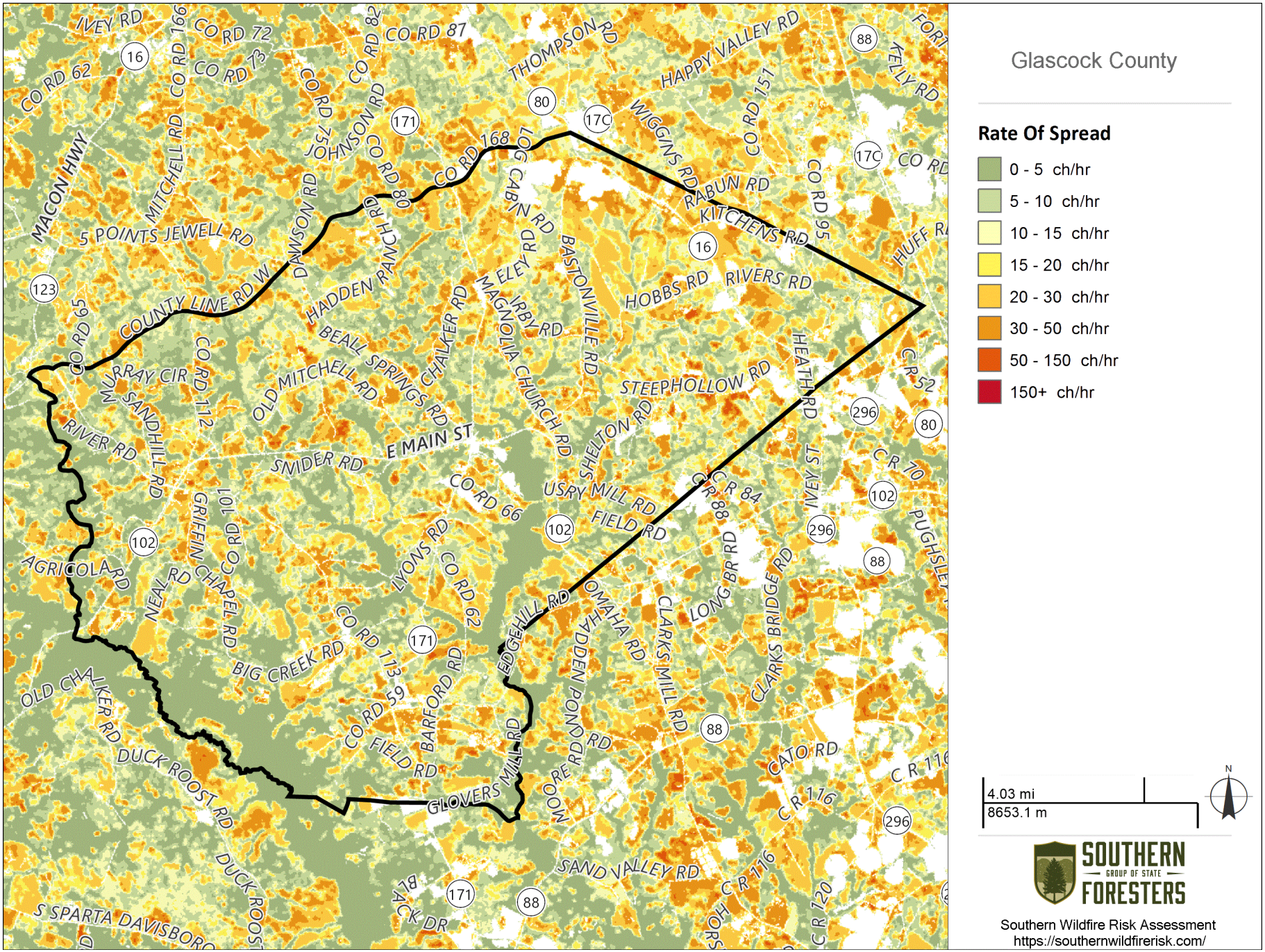
Characteristic Rate of Spread is the typical or representative rate of spread of a potential fire based on a weighted average of four percentile weather categories. Rate of spread is the speed with which a fire moves in a horizontal direction across the landscape, usually expressed in chains per hour (ch/hr) or feet per minute (ft/min). For purposes of the Southern Wildfire Risk Assessment, this measurement represents the maximum rate of spread of the fire front. Rate of Spread is the metric used to derive the Community Protection Zones.

Rate of spread is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were created from historical weather observations to represent low, moderate, high, and extreme weather days for each weather influence zone in the South. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform.

For all Southern states, except Florida and Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed. For Florida, the 2010 Florida risk assessment update data is shown.

Rate of Spread	Acres	Percent
Non-Burnable	6,331	6.8 %
0 - 5 (ch/hr)	19,348	20.9 %
5 - 10 (ch/hr)	18,265	19.8 %
10 – 15 (ch/hr)	14,942	16.2 %
15 - 20 (ch/hr)	10,387	11.2 %
20 - 30 (ch/hr)	15,139	16.4 %
30 - 50 (ch/hr)	7,623	8.2 %
50 - 150 (ch/hr)	415	0.4 %
150 + (ch/hr)	0	0.0 %
Total	**92,450**	**100.0 %**


Glascock County
Characteristic Rate of Spread
Acres
20,000
10,000
0
6,331
19,348
18,265
14,942
10,387
15,139
7,623
415
0
Non-Burnable
0 - 5 (ch/hr)
5 - 10 (ch/hr)
10 - 15 (ch/hr)
15 - 20 (ch/hr)
20 - 30 (ch/hr)
30 - 50 (ch/hr)
50 - 150 (ch/hr)
150 + (ch/hr)


Glascock County
Rate Of Spread
0 - 5 ch/hr
5 - 10 ch/hr
10 - 15 ch/hr
15 - 20 ch/hr
20 - 30 ch/hr
30 - 50 ch/hr
50 - 150 ch/hr
150+ ch/hr
4.03 mi
8653.1 m
N
SOUTHERN GROUP OF STATE FORESTERS
Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/
IVEY RD
CO RD 72
CO RD 62
CO RD 73
CO RD 166
CO RD 82
CO RD 87
THOMPSON RD
HAPPY VALLEY RD
KELLY RD
MACON HWY
MITCHELL RD
CO RD 75
JOHNSON RD
CO RD 80
CO RD 168
LOG CABIN RD
WIGGINS RD
CO RD 151
CO RD 95
RABUN RD
KITCHENS RD
5 POINTS JEWELL RD
DAWSON RD
HADDEN RANCH RD
M ELEY IRBY RD
BASTONVILLE RD
HOBBS RD
RIVERS RD
HUFF RA
COUNTY LINE RD W
CO RD 95
MURRAY CIR
CO RD 112
BEALL SPRINGS RD
CHALKER RD
MAGNOLIA CHURCH RD
OLD MITCHELL RD
STEEPHOLLOW RD
HEATH RD
C R 52
SANDHILL RD
RIVER RD
SNIDER RD
E MAIN ST
SHELTON RD
C R 70
1ST AVE
PUGHSLEY
CO RD 66
USRY MILL RD
C R 84
C R 88
FIELD RD
LONG BR RD
CLARKS BRIDGE RD
AGRICOLA RD
GRIFFIN CHAPEL RD
CO RD 107
NEAL RD
LYONS RD
CO RD 62
EDGEHILL RD
OMAHA RD
CLARKS MILL RD
CO RD 113
BIG CREEK RD
CO RD 59
BARFORD RD
FIELD RD
OLD CHALKER RD
DUCK ROOST RD
GLOVERS MILL RD
MOORE RD
PONDDEN RD
CATO RD
C R 116
C R 776
C R 120
SAND VALLEY RD
BLACK DR
S SPARTA DAVISBORO
DUCK ROOST
16
17C
80
88
123
171
102
296

Characteristic Flame Length

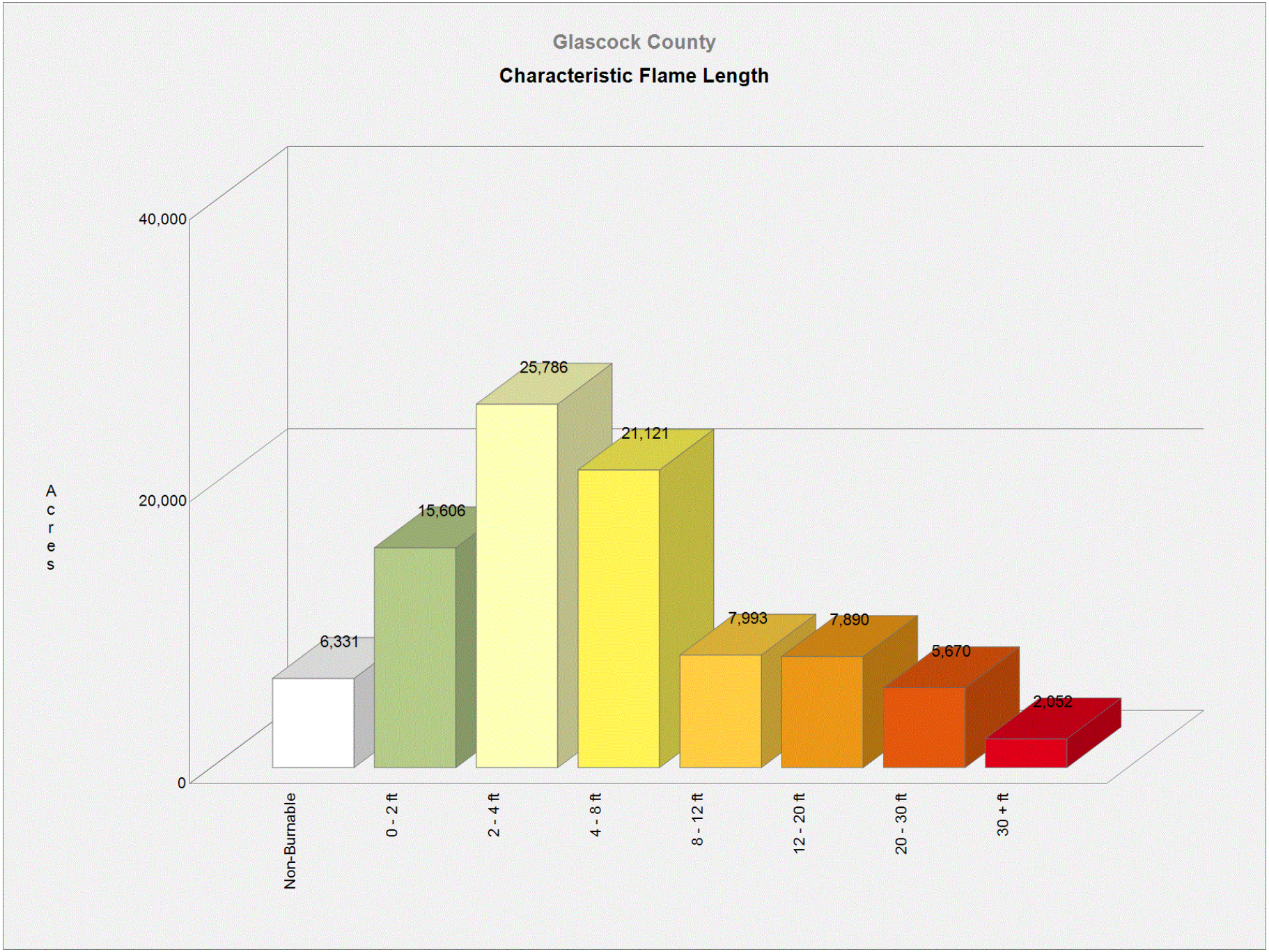
Description

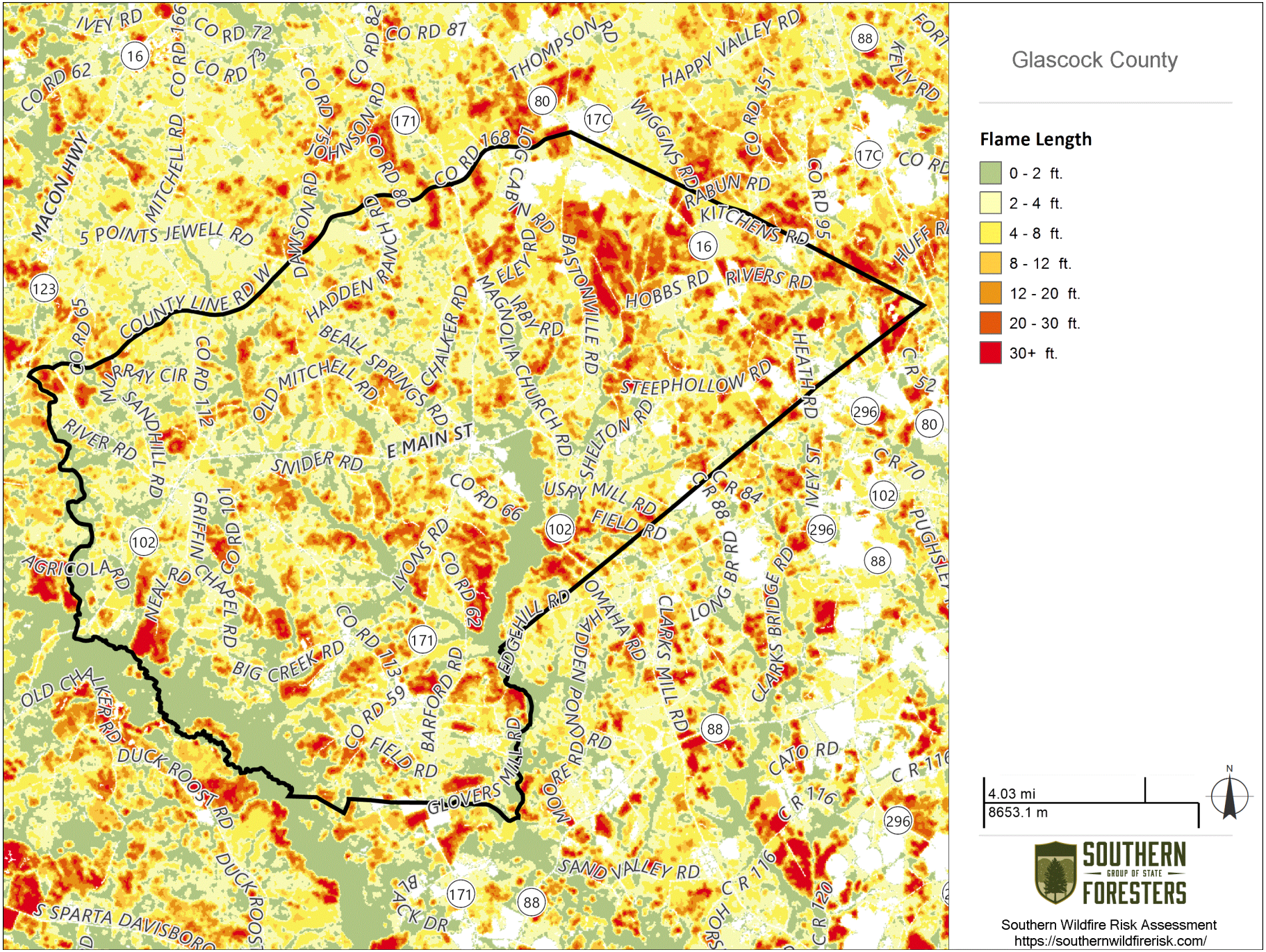
Characteristic Flame Length is the typical or representative flame length of a potential fire based on a weighted average of four percentile weather categories. Flame Length is defined as the distance between the flame tip and the midpoint of the flame depth at the base of the flame, which is generally the ground surface. It is an indicator of fire intensity and is often used to estimate how much heat the fire is generating. Flame length is typically measured in feet (ft). Flame length is the measure of fire intensity used to generate the response index outputs for the SWRA.

Flame length is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were created from historical weather observations to represent low, moderate, high, and extreme weather days for each weather influence zone in the South. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform.

For all Southern states, except Florida and Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed. For Florida, the 2010 Florida risk assessment update data is shown.

Flame Length	Acres	Percent
Non-Burnable	6,331	6.8 %
0 - 2 ft	15,606	16.9 %
2 - 4 ft	25,786	27.9 %
4 - 8 ft	21,121	22.8 %
8 - 12 ft	7,993	8.6 %
12 - 20 ft	7,890	8.5 %
20 - 30 ft	5,670	6.1 %
30 + ft	2,052	2.2 %
Total	**92,449**	**100.0 %**


Glascock County
Characteristic Flame Length
Acres
40,000
20,000
0
6,331
15,606
25,786
21,121
7,993
7,890
5,670
2,052
Non-Burnable
0 - 2 ft
2 - 4 ft
4 - 8 ft
8 - 12 ft
12 - 20 ft
20 - 30 ft
30 + ft


Glascock County
Flame Length
0 - 2 ft.
2 - 4 ft.
4 - 8 ft.
8 - 12 ft.
12 - 20 ft.
20 - 30 ft.
30+ ft.
4.03 mi
8653.1 m
N
SOUTHERN GROUP OF STATE FORESTERS
Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

Characteristic Fire Intensity Scale

Description

Characteristic Fire Intensity Scale (FIS) specifically identifies areas where significant fuel hazards and associated dangerous fire behavior potential exist based on a weighted average of four percentile weather categories. Similar to the Richter scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. FIS consist of 5 classes where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensities and the maximum class, Class 5, represents very high wildfire intensities. Refer to descriptions below.

- **Class 1, Very Low:**
  Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.

- **Class 2, Low:**
  Small flames, usually less than two feet long; small amount of very short range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.

- **Class 3, Moderate:**
  Flames up to 8 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.

- **Class 4, High:**
  Large Flames, up to 30 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.

- **Class 5, Very High:**
  Very large flames up to 150 feet in length; profuse short-range spotting, frequent long-range spotting; strong fire-induced winds. Indirect attack marginally effective at the head of the fire. Great potential for harm or damage to life and property.

For all Southern states, except Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed.

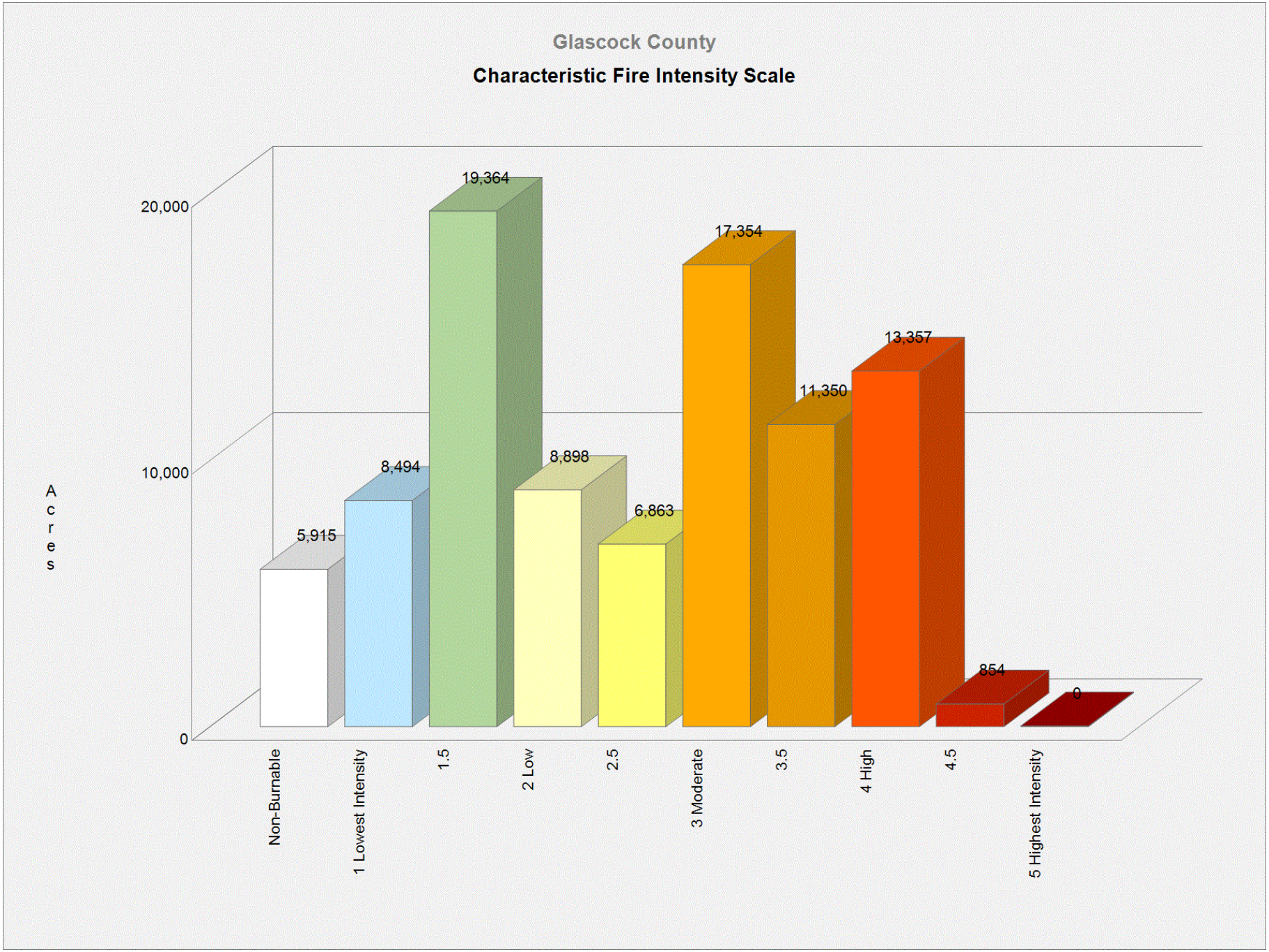
To aid in viewing on the map, FIS is presented in 1/2 class increments. Please consult the SouthWRAP User Manual for a more detailed description of the FIS class descriptions.

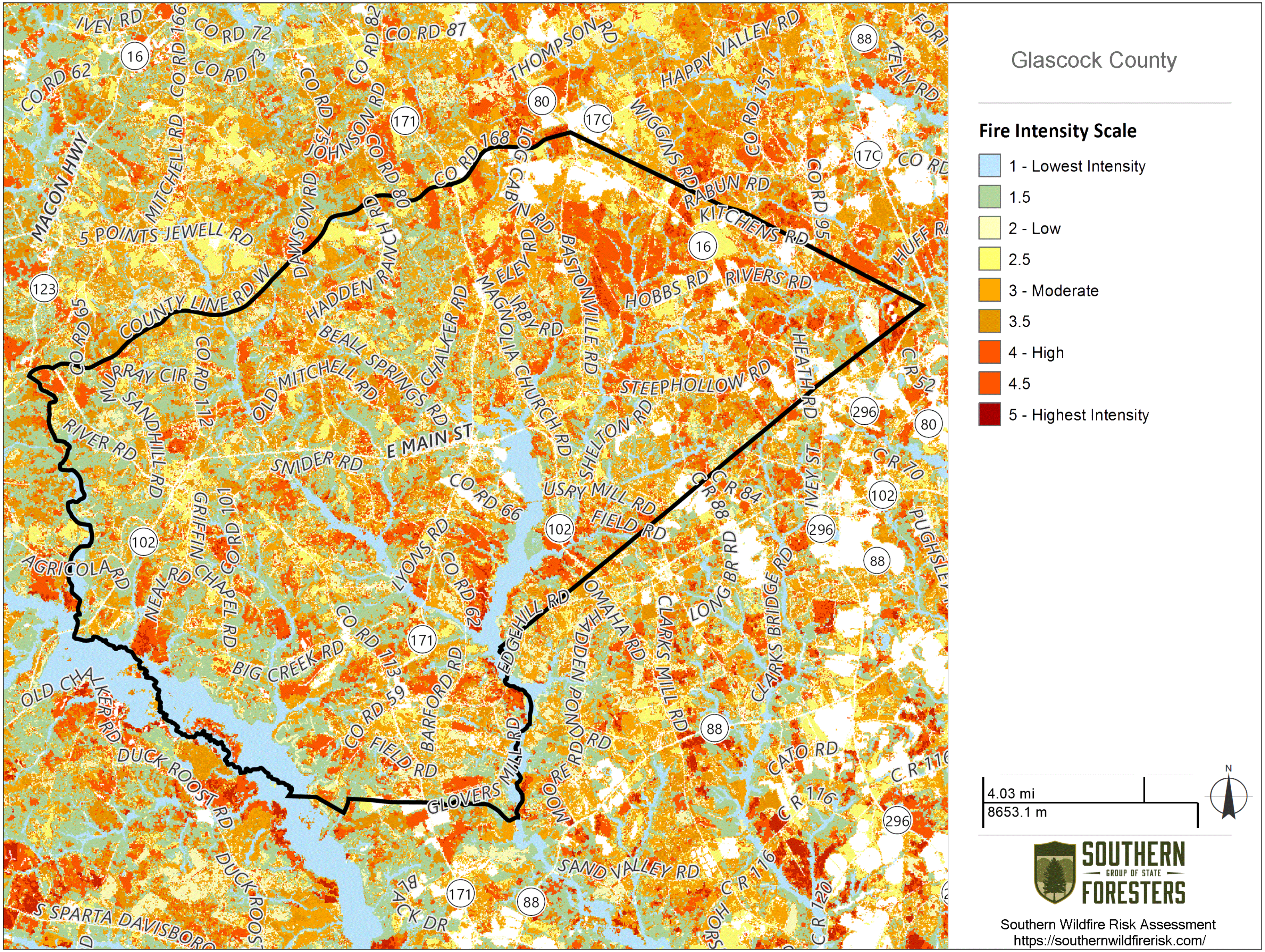
Since all areas in the South have fire intensity scale calculated consistently, it allows for comparison and ordination of areas across the entire region.

Fire intensity scale is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were created from historical weather observations to represent low, moderate, high, and extreme weather days for each weather influence zone in the South. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform.

The fire intensity scale map is derived at a 30-meter resolution. This scale of data was chosen to be consistent with the accuracy of the primary surface fuels dataset used in the assessment. While not appropriate for site specific analysis, it is appropriate for regional, county or local planning efforts.

Class	Acres	Percent
Non-Burnable	5,915	6.4 %
1 Lowest Intensity	8,494	9.2 %
1.5	19,364	20.9 %
2 Low	8,898	9.6 %
2.5	6,863	7.4 %
3 Moderate	17,354	18.8 %
3.5	11,350	12.3 %
4 High	13,357	14.4 %
4.5	854	0.9 %
5 Highest Intensity	0	0.0 %
Total	**92,449**	**100.0 %**


Glascock County
Characteristic Fire Intensity Scale
Acres
20,000
10,000
0
5,915
8,494
19,364
8,898
6,863
17,354
11,350
13,357
854
0
Non-Burnable
1 Lowest Intensity
1.5
2 Low
2.5
3 Moderate
3.5
4 High
4.5
5 Highest Intensity


Glascock County
Fire Intensity Scale
1 - Lowest Intensity
1.5
2 - Low
2.5
3 - Moderate
3.5
4 - High
4.5
5 - Highest Intensity
4.03 mi
8653.1 m
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Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

Fire Type – Extreme

Description

There are two primary fire types – surface fire and canopy fire. Canopy fire can be further subdivided into passive canopy fire and active canopy fire. A short description of each of these is provided below.

Surface Fire
A fire that spreads through surface fuel without consuming any overlying canopy fuel. Surface fuels include grass, timber litter, shrub/brush, slash and other dead or live vegetation within about 6 feet of the ground.

Passive Canopy Fire
A type of crown fire in which the crowns of individual trees or small groups of trees burn, but solid flaming in the canopy cannot be maintained except for short periods (Scott & Reinhardt, 2001).

Active Canopy Fire
A crown fire in which the entire fuel complex (canopy) is involved in flame, but the crowning phase remains dependent on heat released from surface fuel for continued spread (Scott & Reinhardt, 2001).





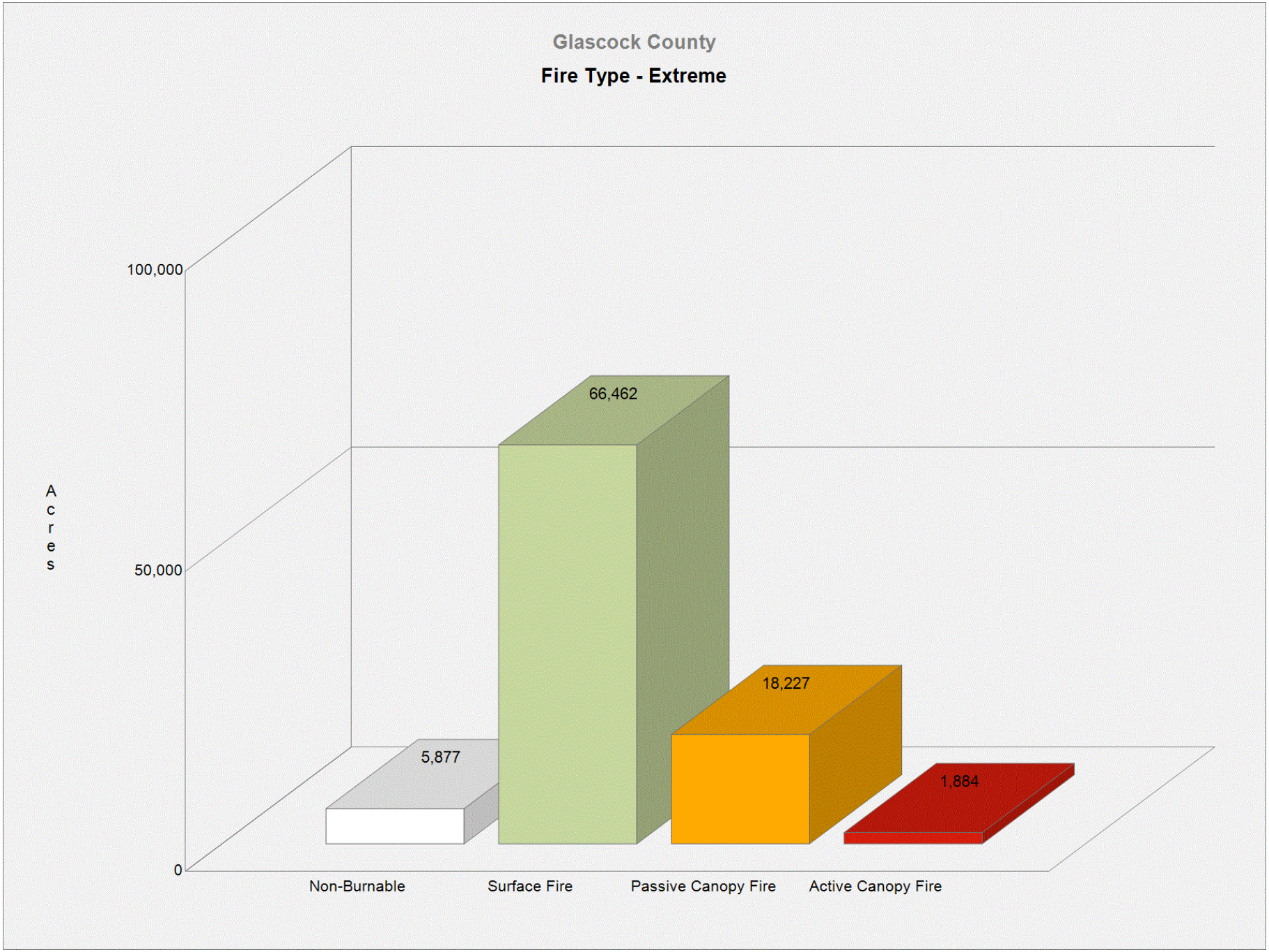

Fire Type – Extreme represents the potential fire type under the extreme percentile weather category. The extreme percentile weather category represents the average weather based on the top three percent fire weather days in the analysis period. It is not intended to represent a worst case scenario weather event. Accordingly, the potential fire type is based on fuel conditions, extreme percentile weather, and topography.

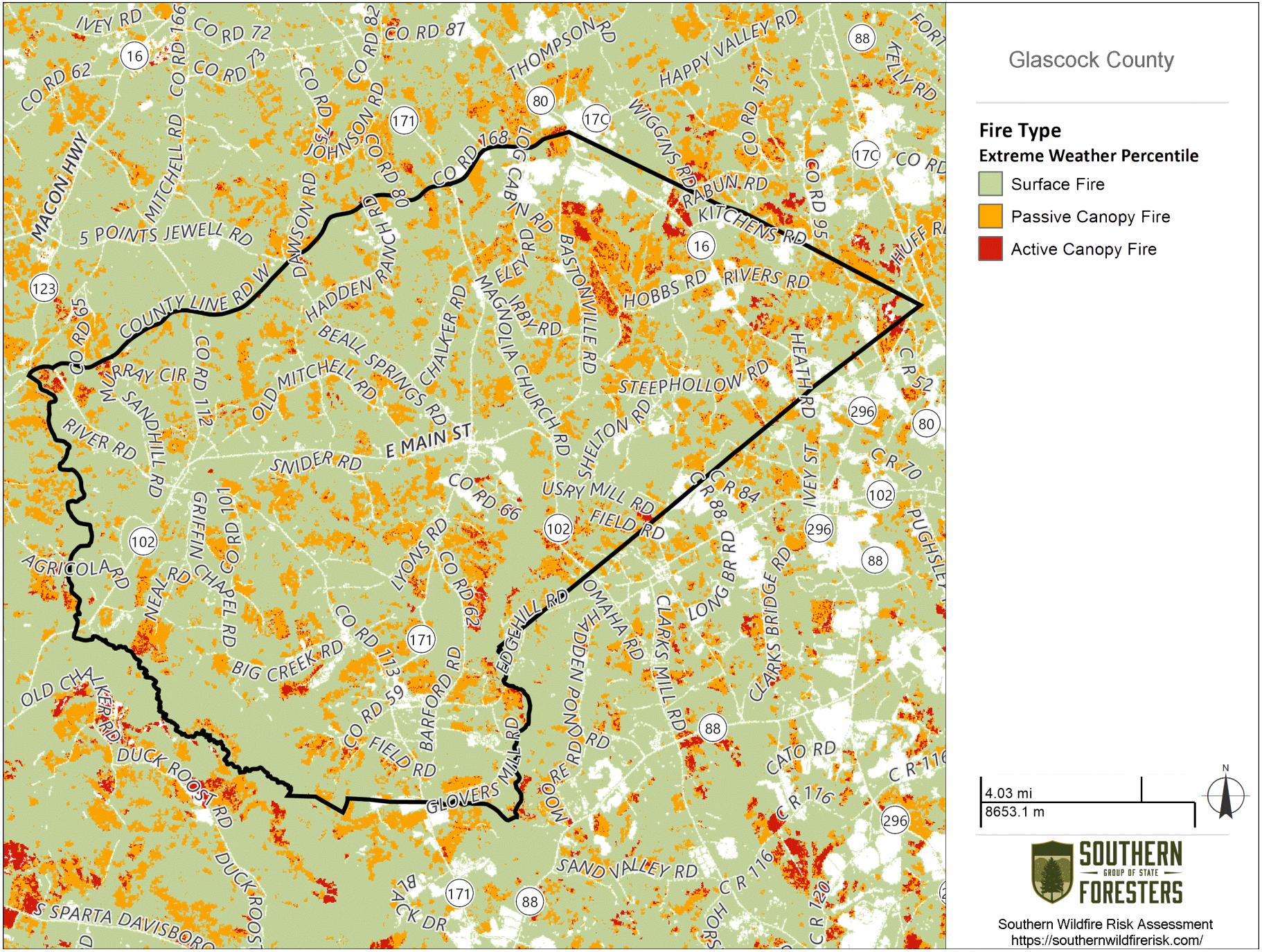
Canopy fires are very dangerous, destructive and difficult to control due to their increased fire intensity. From a planning perspective, it is important to identify where these conditions are likely to occur on the landscape so that special preparedness measure can be taken if necessary. The Fire Type – Extreme layer shows the footprint of where these areas are most likely to occur. However, it is important to note that canopy fires are not restricted to these areas. Under the right conditions, it can occur in other canopied areas.

For all Southern states, except Florida and Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed. For Florida, the 2010 Florida risk assessment update data is shown.

The fire type - extreme map is derived at a 30-meter resolution. This scale of data was chosen to be consistent with the accuracy of the primary surface fuels dataset used in the assessment. While not appropriate for site specific analysis, it is appropriate for regional, county or local planning efforts.

Fire Type	Acres	Percent
Non-Burnable	5,877	6.4 %
Surface Fire	66,462	71.9 %
Passive Canopy	18,227	19.7 %
Active Canopy	1,884	2.0 %
Total	**92,450**	**100.0 %**


Glascock County
Fire Type - Extreme
Acres
100,000
50,000
0
66,462
18,227
5,877
1,884
Non-Burnable
Surface Fire
Passive Canopy Fire
Active Canopy Fire


Glascock County
Fire Type
Extreme Weather Percentile
Surface Fire
Passive Canopy Fire
Active Canopy Fire
4.03 mi
8653.1 m
N
SOUTHERN GROUP OF STATE FORESTERS
Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

Surface Fuels

Description

Surface fuels, or fire behavior fuel models as they are technically referred to, contain the parameters needed by the Rothermel (1972) surface fire spread model to compute surface fire behavior characteristics, such as rate of spread, flame length, fireline intensity, and other fire behavior metrics. As the name might suggest, surface fuels only account for the surface fire potential. Canopy fire potential is computed through a separate but linked process. The Southern Wildfire Risk Assessment accounts for both surface and canopy fire potential in the fire behavior outputs.

Surface fuels are typically categorized into one of four primary fuel types based on the primary carrier of the surface fire: 1) grass, 2) shrub/brush, 3) timber litter and 4) slash. There are two standard fire behavior fuel model sets published for use. The Fire Behavior Prediction System 1982 Fuel Model Set (Anderson, 1982) contains 13 fuel models and the Fire Behavior Prediction System 2005 Fuel Model Set (Scott & Burgan 2005) contains 40 fuel models.

The SWRA Surface Fuels have been updated to use the FBPS 2005 40 fuel model set from the LANDFIRE 2010 products, supplemented with additional enhancements obtained through calibration workshops with the Southern states. Florida uses FBPS 1982 fuel models derived based on spectral classification of Landsat Thematic Mapper (TM) satellite imagery derived as part of the Florida Forest Service fuels mapping and risk assessment projects. Texas fuels represent 2010 updates conducted as part of a statewide fuels and canopy mapping effort.

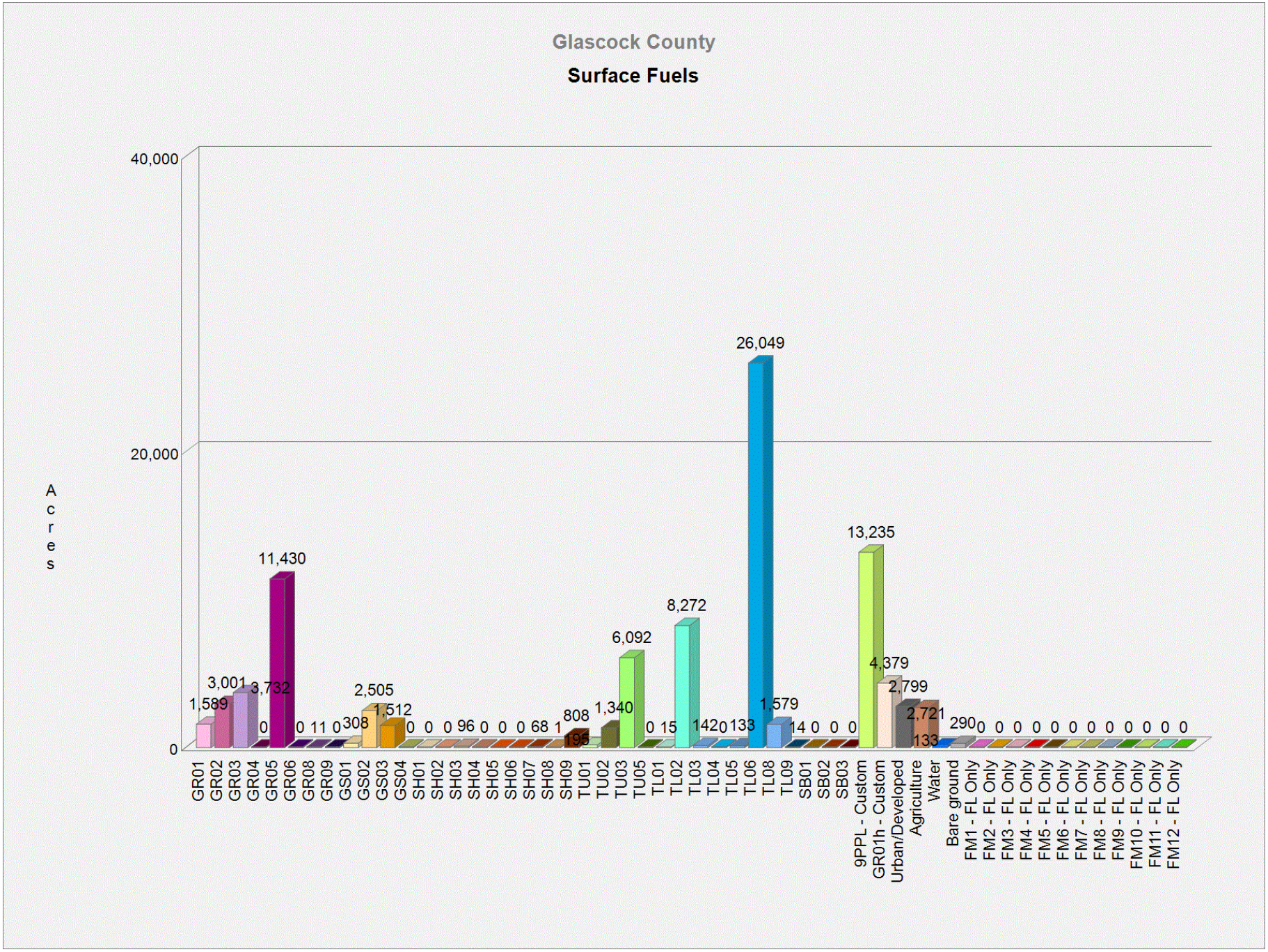
For the remaining 11 Southern states, the recently completed SWRA Update project produced a new surface fuels dataset based on 2010 LANDFIRE products. A detailed fuels calibration process was undertaken that involved collaboration with Southern state fuels and fire behavior specialists supported by federal partner involvement. Workshops were held to review the LANDFIRE fuels product and calibrate the data by modifying specific fuels classes to better reflect local knowledge and input. A key component of this calibration task involved using image processing techniques to better delineate conifer areas, and in particular pine areas (plantations and natural stands). The fuels layer represents 2010 conditions.

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
Grass Fuels Type Models (nearly pure grass and/or forb type)				
GR01	2005	Grass is short, patchy, and possibly heavily grazed. Spread rate moderate; flame length low.	1,589	1.7 %
GR02	2005	Moderately coarse continuous grass, average depth about 1 foot. Spread rate high; flame length moderate.	3,001	3.2 %
GR03	2005	Very coarse grass, average depth about 2 feet. Spread rate high; flame length moderate.	3,732	4.0 %
GR04	2005	Moderately coarse continuous grass, average depth about 2 feet. Spread rate very high; flame length high.	0	0.0 %
GR05	2005	Dense, coarse grass, average depth about 1 to 2 feet. Spread rate very high; flame length high.	11,430	12.4 %
GR06	2005	Dryland grass about 1 to 2 feet tall. Spread rate very high; flame length very high.	0	0.0 %
GR08	2005	Heavy, coarse, continuous grass 3 to 5 feet tall. Spread rate very high; flame length very high.	11	0.0 %
GR09	2005	Very heavy, coarse, continuous grass 5 to 8 feet tall. Spread rate extreme; flame length extreme.	0	0.0 %
Grass-Shrub Fuels Type Models (mixture of grass and shrub, up to 50 percent shrub coverage)				
GS01	2005	Shrubs are about 1 foot high, low grass load. Spread rate moderate; flame length low.	308	0.3 %
GS02	2005	Shrubs are 1 to 3 feet high, moderate grass load. Spread rate high; flame length moderate.	2,505	2.7 %
GS03	2005	Moderate grass/shrub load, average grass/shrub depth less than 2 feet. Spread rate high; flame length moderate.	1,512	1.6 %
GS04	2005	Heavy grass/shrub load, depth greater than 2 feet. Spread rate high; flame length very high.	0	0.0 %
Shrub Fuel Type Models (Shrubs cover at least 50 percent of the site, grass sparse to nonexistent)				
SH01	2005	Low shrub fuel load, fuelbed depth about 1 foot; some grass may be present. Spread rate very low; flame length very low.	0	0.0 %
SH02	2005	Moderate fuel load (higher than SH01), depth about 1 foot, no grass fuel present. Spread rate low; flame length low.	0	0.0 %
SH03	2005	Moderate shrub load, possibly with pine overstory or herbaceous fuel, fuel bed depth 2 to 3 feet. Spread rate low; flame length low.	96	0.1 %
SH04	2005	Low to moderate shrub and litter load, possibly with pine overstory, fuel bed depth about 3 feet. Spread rate high; flame length moderate.	0	0.0 %

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
SH05	2005	Heavy shrub load, depth 4 to 6 feet. Spread rate very high; flame length very high.	0	0.0 %
SH06	2005	Dense shrubs, little or no herb fuel, depth about 2 feet. Spread rate high; flame length high.	0	0.0 %
SH07	2005	Very heavy shrub load, depth 4 to 6 feet. Spread rate lower than SH05, but flame length similar. Spread rate high; flame length very high.	68	0.1 %
SH08	2005	Dense shrubs, little or no herb fuel, depth about 3 feet. Spread rates high; flame length high.	1	0.0 %
SH09	2005	Dense, finely branched shrubs with significant fine dead fuel, about 4 to 6 feet tall; some herbaceous fuel may be present. Spread rate high, flame length very high.	808	0.9 %
Timber-Understory Fuel Type Models (Grass or shrubs mixed with litter from forest canopy)				
TU01	2005	Fuelbed is low load of grass and/or shrub with litter. Spread rate low; flame length low.	195	0.2 %
TU02	2005	Fuelbed is moderate litter load with shrub component. Spread rate moderate; flame length low.	1,340	1.4 %
TU03	2005	Fuelbed is moderate litter load with grass and shrub components. Spread rate high; flame length moderate.	6,092	6.6 %
TU05	2005	Fuelbed is high load conifer litter with shrub understory. Spread rate moderate; flame length moderate.	0	0.0 %
Timber Litter Fuel Type Models (dead and down woody fuel litter beneath a forest canopy)				
TL01	2005	Light to moderate load, fuels 1 to 2 inches deep. Spread rate very low; flame length very low.	15	0.0 %
TL02	2005	Low load, compact. Spread rate very low; flame length very low.	8,272	8.9 %
TL03	2005	Moderate load conifer litter. Spread rate very low; flame length low.	142	0.2 %
TL04	2005	Moderate load, includes small diameter downed logs. Spread rate low; flame length low.	0	0.0 %
TL05	2005	High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.	133	0.1 %
TL06	2005	Moderate load, less compact. Spread rate moderate; flame length low.	26,049	28.2 %
TL08	2005	Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.	1,579	1.7 %

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
TL09	2005	Very high load broadleaf litter; heavy needle-drape in otherwise sparse shrub layer. Spread rate moderate; flame length moderate.	14	0.0 %
Slash-Blowdown Fuel Type Models (activity fuel/slash or debris from wind damage)				
SB01	2005	Low load activity fuel. Spread rate moderate; flame length low.	0	0.0 %
SB02	2005	Moderate load activity or low load blowdown. Spread rate moderate; flame length moderate.	0	0.0 %
SB03	2005	High load activity fuel or moderate load blowdown. Spread rate high; flame length high.	0	0.0 %
Custom Fuel Type Models (all states except Florida)				
9PPL	Custom	Long-needle (pine litter, plantations) with a high load	13,235	14.3 %
GR01h	Custom	Pasture and hayland	4,379	4.7 %
Non-burnable Fuel Type Models (insufficient wildland fuel to carry a wildland fire under any condition)				
NB01	2005	Urban or suburban development; insufficient wildland fuel to carry wildland fire. Includes roads.	2,799	3.0 %
NB03	2005	Agricultural field, maintained in nonburnable condition.	2,721	2.9 %
NB08	2005	Open water	133	0.1 %
NB09	2005	Bare ground	290	0.3 %
1982 Fire Behavior Prediction System – ONLY USED FOR FLORIDA ASSESSMENT				
FM 1	1982	Short grass	0	0.0 %
FM 2	1982	Timber grass and understory	0	0.0 %
FM 3	1982	Tall grass	0	0.0 %
FM 4	1982	Chaparral	0	0.0 %

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
FM 5	1982	Brush	0	0.0 %
FM 6	1982	Dormant brush	0	0.0 %
FM 7	1982	Southern rough	0	0.0 %
FM 8	1982	Compact timber litter	0	0.0 %
FM 9	1982	Hardwood litter	0	0.0 %
FM 10	1982	Timber (understory)	0	0.0 %
FM 11	1982	Light logging slash	0	0.0 %
FM 12	1982	Medium logging slash	0	0.0 %
			92,449	**100.0 %**


Glascock County
Surface Fuels
Acres
40,000
20,000
0
1,589
3,001
3,732
0
11,430
0
11
0
308
2,505
1,512
0
0
0
96
0
0
0
68
1
808
196
1,340
6,092
0
15
8,272
142
0
133
26,049
1,579
14
0
0
0
13,235
4,379
2,799
2,721
133
290
0
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GR01
GR02
GR03
GR04
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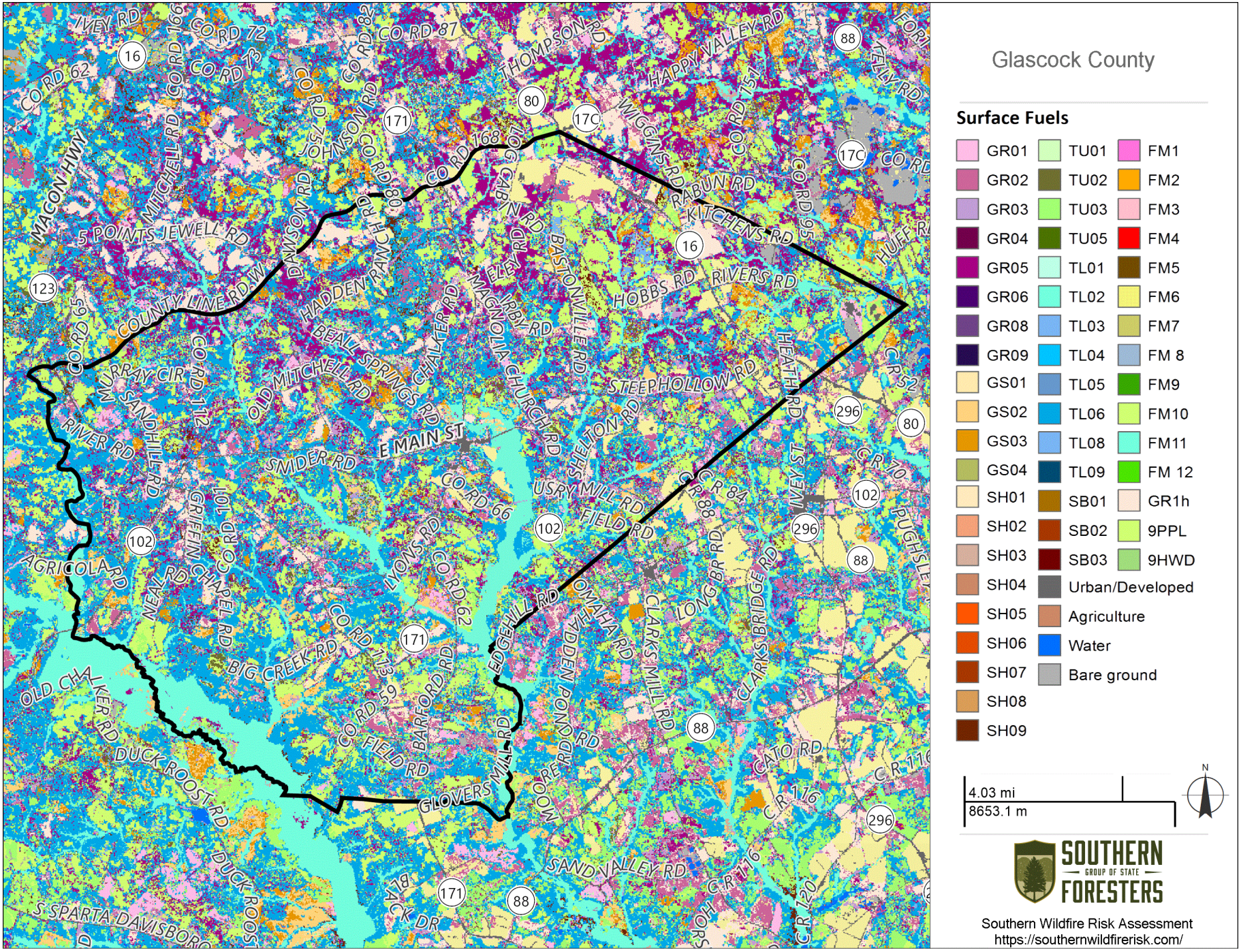
TU01
TU02
TU03
TU05
TL01
TL02
TL03
TL04
TL05
TL06
TL08
TL09
SB01
SB02
SB03
9PPL - Custom
GR01h - Custom
Urban/Developed
Agriculture
Water
Bare ground
FM1 - FL Only
FM2 - FL Only
FM3 - FL Only
FM4 - FL Only
FM5 - FL Only
FM6 - FL Only
FM7 - FL Only
FM8 - FL Only
FM9 - FL Only
FM10 - FL Only
FM11 - FL Only
FM12 - FL Only

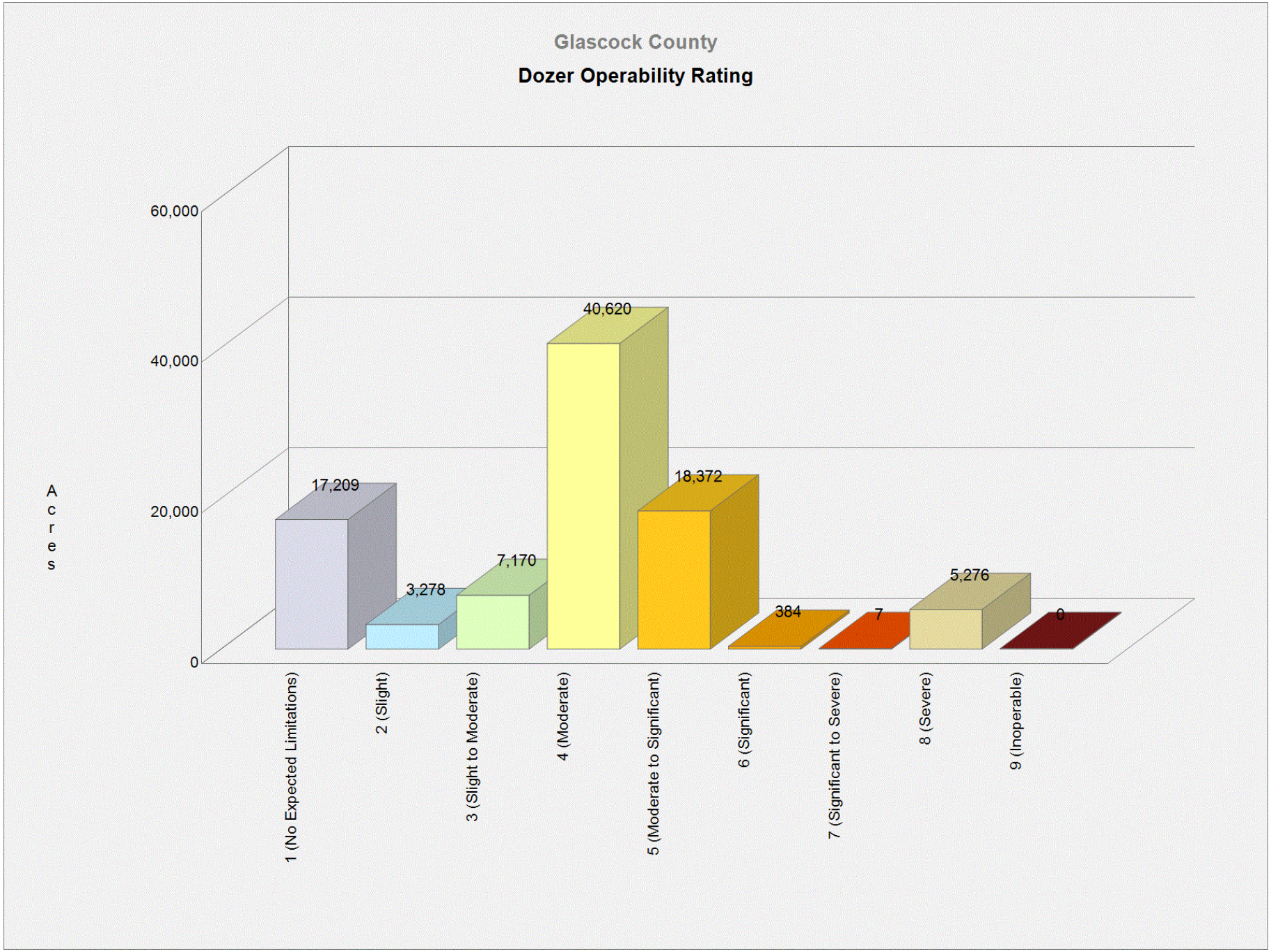

Glascock County
Surface Fuels
GR01
GR02
GR03
GR04
GR05
GR06
GR08
GR09
GS01
GS02
GS03
GS04
SH01
SH02
SH03
SH04
SH05
SH06
SH07
SH08
SH09
TU01
TU02
TU03
TU05
TL01
TL02
TL03
TL04
TL05
TL06
TL08
TL09
SB01
SB02
SB03
Urban/Developed
Agriculture
Water
Bare ground
FM1
FM2
FM3
FM4
FM5
FM6
FM7
FM 8
FM9
FM10
FM11
FM 12
GR1h
9PPL
9HWD
4.03 mi
8653.1 m
N
SOUTHERN GROUP OF STATE FORESTERS
Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

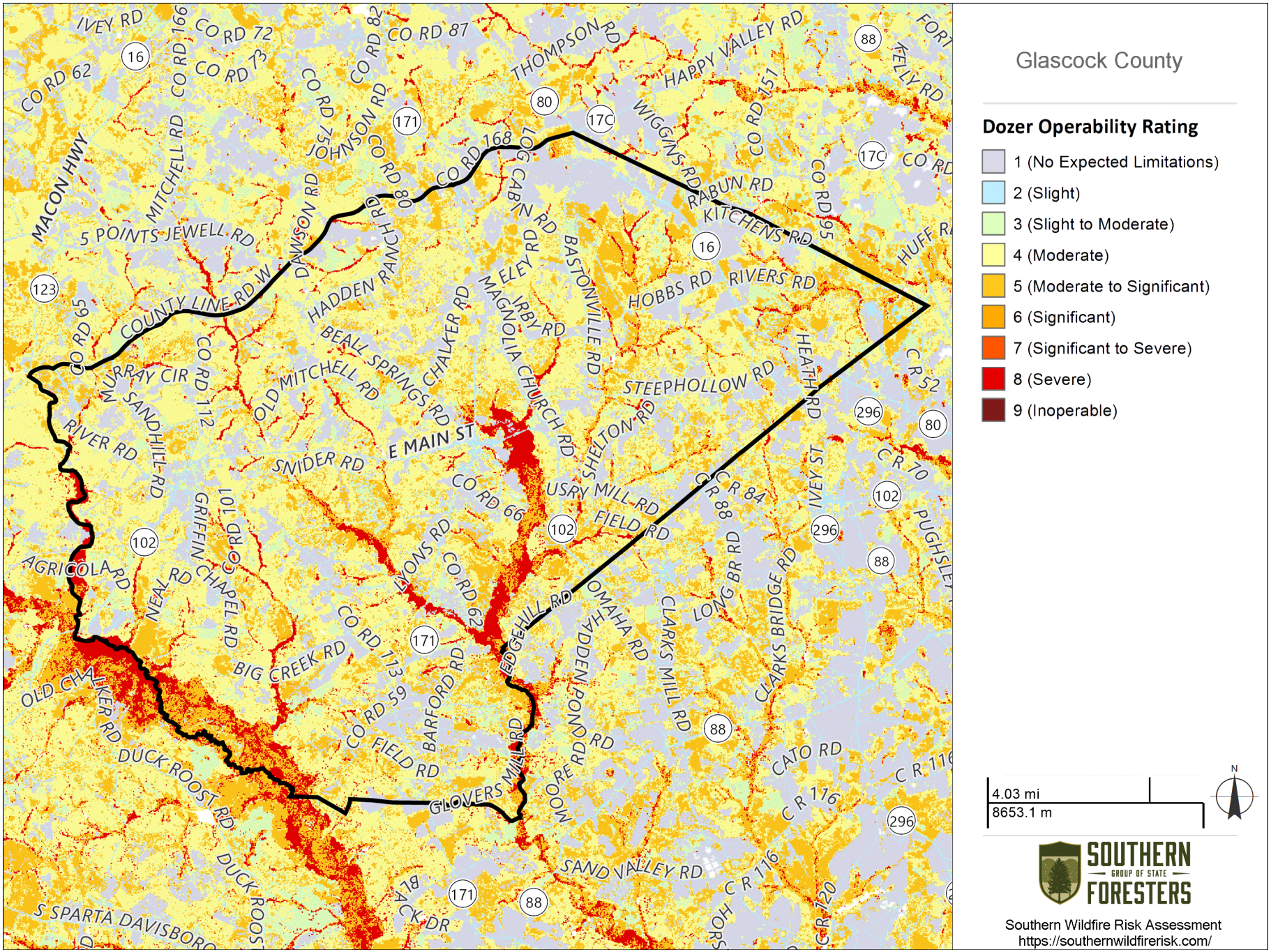
Dozer Operability Rating

Description

The Dozer Operability Rating (DOR) expresses how difficult it is to operate a dozer in an area based on limitations associated with slope and vegetation/fuel type. Using the fireline production rates published in the NWCG Fireline Handbook 3 (PMS 410-1) as a guide, operability values were assigned to a matrix based on 6 slope classes and 10 vegetation/fuels classes. The possible values range from 1 to 9, with 1 representing no limitations and 9 being inoperable.

Class	Acres	Percent
1 (No Expected Limitations)	17,209	18.6 %
2 (Slight)	3,278	3.6 %
3 (Slight to Moderate)	7,170	7.8 %
4 (Moderate)	40,620	44.0 %
5 (Moderate to Significant)	18,372	19.9 %
6 (Significant)	384	0.4 %
7 (Significant to Severe)	7	0.0 %
8 (Severe)	5,276	5.7 %
9 (Inoperable)	0	0.0 %
Total	**92,316**	**100.0 %**


Glascock County
Dozer Operability Rating
Acres
60,000
40,000
20,000
0
17,209
3,278
7,170
40,620
18,372
384
7
5,276
0
1 (No Expected Limitations)
2 (Slight)
3 (Slight to Moderate)
4 (Moderate)
5 (Moderate to Significant)
6 (Significant)
7 (Significant to Severe)
8 (Severe)
9 (Inoperable)


Glascock County
Dozer Operability Rating
1 (No Expected Limitations)
2 (Slight)
3 (Slight to Moderate)
4 (Moderate)
5 (Moderate to Significant)
6 (Significant)
7 (Significant to Severe)
8 (Severe)
9 (Inoperable)
4.03 mi
8653.1 m
N
SOUTHERN GROUP OF STATE FORESTERS
Southern Wildfire Risk Assessment
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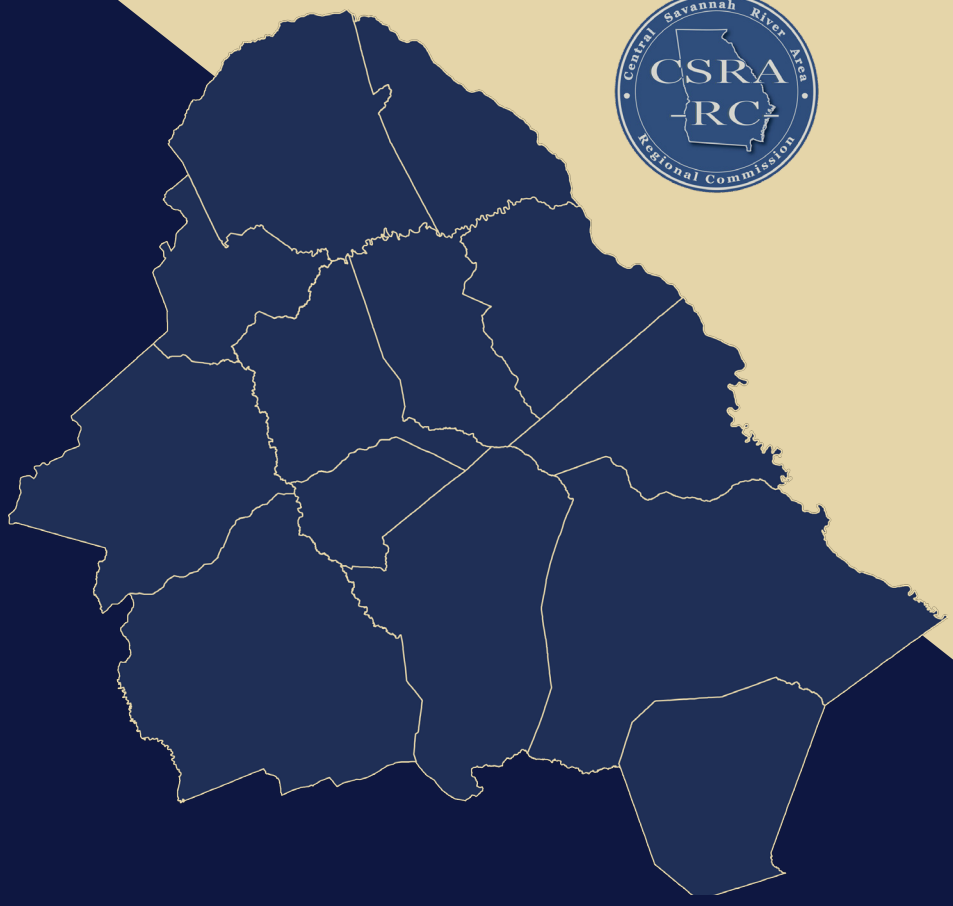
More information about the Oak Ridge National Laboratory LandScan data is available from http://web.ornl.gov/sci/landscan/landscan_documentation.shtml

More information about the U.S. Forest Service SILVIS data is available from http://silvis.forest.wisc.edu/maps/wui_main

SOUTHERN GROUP OF STATE FORESTERS
WILDFIRE RISK ASSESSMENT PORTAL

CSRA

Regional Plan 2040



OUR COUNTIES

BURKE
COLUMBIA
GLASCOCK
HANCOCK
JEFFERSON
JENKINS
LINCOLN
MCDUFFIE
AUGUSTA-RICHMOND
TALIAFERRO
WARREN
WASHINGTON
WILKES

Prepared in 2018

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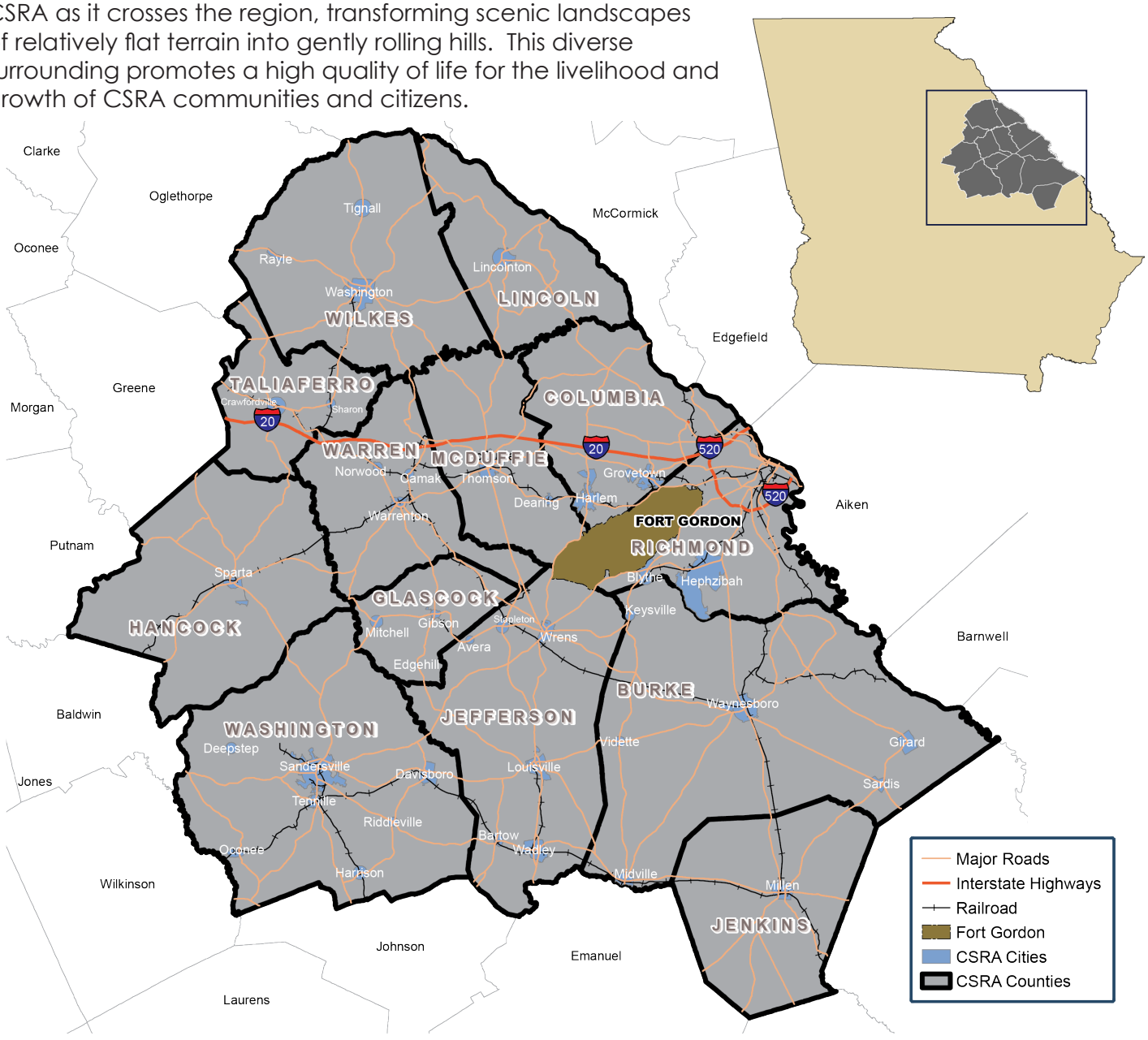
TABLE OF CONTENTS

EXECUTIVE SUMMARY

CSRA REGIONAL PLAN

Regional Overview

The Central Savannah River Area (CSRA) is bordered on the eastern side by the Savannah River and anchored by the city of Augusta at the heart of east-central Georgia. The Savannah River provides recreation and tourism for the CSRA border counties. Five counties in Georgia and two in South Carolina form a metropolitan cluster and regional core that leads out to the surrounding rural areas of the region. To the north, west, and south of the urban core, the rural CSRA is occupied by a lush agricultural belt where food and service crops are produced in the rich soil and livestock are nurtured for sale at market. The fall line of the ancient seashore helps define the geography of the CSRA as it crosses the region, transforming scenic landscapes of relatively flat terrain into gently rolling hills. This diverse surrounding promotes a high quality of life for the livelihood and growth of CSRA communities and citizens.



The CSRA region encompasses an area of nearly 6,500 square miles, with 465,126 residents according to the U.S. Census Bureau's 2015 American Community Survey. Located in east-central Georgia along the Savannah River, the CSRA region includes 13 counties: Burke, Columbia, Glascock, Hancock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Taliaferro, Warren, Washington, and Wilkes. The largest city in the CSRA is Augusta – a major component of the economic core of the region. The Augusta-Richmond County, GA-SC Metropolitan Statistical Area (MSA) includes Richmond, Columbia, Burke, Lincoln and McDuffie counties in Georgia and Aiken and Edgefield counties in South Carolina.

This region represents both urban and rural interests - with two urban counties holding over 300,000 residents combined, and the balance of the region's counties containing anywhere from just over 1,700 residents to about 24,000. Augusta-Richmond and Columbia counties were the nexus of over 90 percent of regional population growth (81,745 residents) between 1990 and 2015. As urban areas have grown, some rural areas have experienced decline. These shifts in population affect the overall resident quality of life, including availability of basic services like high-speed internet and health care, affordable housing, and daily work commutes. The state of Georgia's recently updated Achieving Connectivity Everywhere (ACE) Act will require all communities to think outside the box and plan for broadband (aka highspeed internet) deployment throughout their jurisdictions. Improving broadband access for the region will help our healthcare, public safety and educational institutions provide better service, enable individual connectivity, and greatly improve the accessibility of commerce to other parts of the state and nation.

One emerging regional development factor is the planned growth at Fort Gordon, slated to bring several thousand soldiers and associated contractors to the region over the next several years through the U.S. Army Cyber Center of Excellence. This growth will directly affect the counties adjacent to Fort Gordon and will likely have extended effects across the region as these new residents search for housing, recreation, and retail opportunities and require local public services. To address impacts of land use and encroachment on Fort missions, McDuffie, Augusta-Richmond, Columbia, Burke and Jefferson Counties are participating in a Joint Land Use Study (JLUS). Some recommendations from the forthcoming final JLUS report are included in this document as implementation activities.

While Fort Gordon has a measurable impact on the regional economy, it is not the only player. Another major growth industry for this region is energy. This includes is Plant Vogtle, a nuclear power plant that is expanding with the construction of two core reactors. This multi-billion dollar construction project has affected favorably the economy of several neighboring counties and created a need for housing, community facilities, land use controls, transportation improvements, and intergovernmental cooperation.

Another major sector in the region is healthcare. Indeed, this region boasts 10 hospitals and an expanding network of prompt care centers. The Medical College of Georgia at Augusta University is also located in this region; health professionals are trained here to be care providers at all levels, from doctors to certified nursing and occupational health assistants. In this region, some larger, urban hospitals have increased capacity; while some rural hospitals have closed or are struggling.

The CSRA contains a wealth of natural, cultural and environmental resources that provide the region with numerous social, economic, and environmental benefits. The rural portions of the region have some of the most beautiful and interesting natural and cultural resources. These less densely populated small towns, counties, and agricultural areas can both promote and protect critical resources and sectors like farming through agritourism and heritage tourism. This may enable them to achieve a higher quality of life through an expanded economy and increased public access to resources. With that said, whether urban or rural, our natural and cultural resources are in need of protection if we want to contiue reaping their benefits. For example, the region's watersheds will need to be monitored to ensure future development does not render them vulnerable. Additionally, many of the nearly 200 federal and state designated historic districts and sites lack preservation plans or protection ordinances, and this can be remedied.

Although the urban and rural areas sometimes choose to address challenges differently, many basic community needs are the same, and cities and counties must work together to find common solutions. One of the biggest successes for the region's transportation planning and intergovernmental coordination was the passage of the Transportation Investment Act (TIA) in 2012. This approved a 10-year, one percent (1%) sales tax to fund regional and local transportation improvements such as replacing bridges, widening roads and adding sidewalks. This funding reatly enhances the CSRA region's transportation network and creates jobs for contractors, surveyors, and an ever expanding workforce.

CSRA Regional Commission Responsibilities

The CSRA Regional Commission (CSRA RC) is based in Augusta, GA and serves the previously mentioned thirteen counties along with 41 municipalities, providing services in the areas of planning and land-use development, grant writing and administration, economic development, historic preservation, and geographic information systems development and implementation to member jurisdictions.

Additionally, the CSRA RC is the home of the Area Agency on Aging (AAA) for the region and serves the 13 counties in the region as well as Screven County. In this capacity, the CSRA RC works with local providers to ensure that services for seniors are provided and monitored. By utilizing pass-through funds from state and federal sources, the Commission's AAA serves as a gateway for programs and resources aimed at helping aging residents improve the quality of their lives before and during their retirement years.

The CSRA RC is also the parent company of CSRA Business Lending. CSRA Business Lending makes loans to small and start-up businesses for the purposes of creating jobs and economic development opportunities within its service area.

CSRA Regional Vision

The vision of the Central Savannah River Area is to remain a place that reflects the best of what the United States has to offer – a place where residents innovate and create and where commerce thrives; a place where residents are healthy and active because their surroundings encourage physical fitness; and, fundamentally, a place full of natural and man-made beauty, where residents take pride in and draw sustenance from their everyday surroundings.

What's the Regional Plan?

The CSRA Regional Plan (the Plan) is the long-range plan for the management of the region's projected growth by local governments and the CSRA Regional Commission. The Plan's horizon is twenty years but will be updated as needed to address changing regional conditions. The CSRA Regional Commission Council, supported by CSRA RC staff, undertook the process of a full update of its regional plan. The regional vision statement included herein encompasses the best of the committee's and the public's input for the present and future development of the CSRA region. A regional Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, resident comments, and online survey results were utilized in defining regional goals, priority needs and opportunities, and an implementation plan. Feedback mechanisms for the Plan included public hearings and listening sessions. Goals and needs were developed and categorized by the following subject areas: economic development, natural and cultural resources, community facilities and services, housing, land Use and transportation, and Intergovernmental coordination. The CSRA's vision and goals, together with an appraisal of socioeconomic, land use, and environmental opportunities and threats, set the strategic direction for the regional work program. The regional work program then defines priorities and timing for implementation.

The Plan document is divided into four (4) sections:

Regional Goals - This section looks at the future of the region and lays out a road map for it. The goals section includes supporting policies that operate as guidance for decision-makers. It is supported by SWOT analysis, community survey, and other data gathered to inform the plan creation (included in the appendices). The "Regional Goals" section includes maps that depict future development and descriptions of desired development patterns.

Regional Needs and Opportunities - This section examines areas in which needs exist, as well as strengths that can be built on for the future. Every item designated as a priority in this section is tied to an implementation strategy and action items in the implementation program.

Implementation Program - This section includes concrete strategies and actions aimed at realizing the vision and addressing the priority regional needs and opportunities.

Appendices - This section contains data tables, acronym explanations and other information and analysis used in the formulation of the three plan components mentioned above.

Stakeholder Involvement Summary

Public involvement was the key to learning what regional needs were to be addressed. During the process, the RC gathered information and comments from stakeholders and the public through multiple events such as public hearings, steering committee input, listening sessions, an online survey, and social media. CSRA RC staff created a dedicated space on the CSRA RC website to serve as a portal for information about the plan. Stakeholder feedback was used directly in plan development, from the SWOT analysis to the specific implementation measures that form our regional work program.

Our involvement process included the following engagement activities:

- Identified key stakeholders in addition to the general public, designating CSRA RC's Council as the plan's Steering Committee and RC staff as a Technical Advisory Group
- Held two public hearings and three community listening sessions
- Partnered with the Augusta Food Oasis for two (of the three previously mentioned) listening sessions to inform residents about both the Regional Plan overall and more specifically regional food access, which had emerged as a topic of importance.
- Published an online survey to gather additional resident input, with links provided on the RC website, social media, and emails
- Provided a dedicated space on the CSRA RC website to serve as a portal for information about the plan
- Distributed information at RC partner events
- Utilized social media to post information on agency Facebook and Twitter pages
- Created an informational lobby display for the RC office entrance area, along with handouts for citizens with general plan information

Regional Goals and Priorities

Economic Development Goal – to cultivate and maintain a vibrant, diversified economy that expands job opportunities in the region, develops a qualified workforce, supports downtowns as multi-use destinations, and improves the quality of life for all residents

- Create and promote agricultural, natural, and heritage tourism opportunities and assets
- Increase job opportunities through business expansion, attraction and retention

Natural and Cultural Resources Goal – to protect and preserve natural, environmental and cultural resources in the region from development pressure, build a network of connected communities, and highlight our historic resources and natural assets

- Protect natural resources and historic properties

Community Facilities and Services Goal – to provide community facilities and services throughout the region that encourage appropriate development and more walkable, mixed use communities that enhance the overall quality of life for all residents

- Improve and expand infrastructure across region, including water and sewer expansion, flood and drainage improvements, sidewalk construction, and increased broadband access
- Increase access to healthy, affordable food
- Provide resources for residents that allow them to choose whether to age in place or move into housing developments or care facilities for older adults

Housing Goal – to provide a range of housing types and choices, available in urban and rural areas, that is safe and physically and economically accessible to all residents

- Rehabilitation, redevelopment, or removal of vacant and/or dilapidated structures
- Additional housing supply and variety

Land Use and Transportation Goal - to effectively utilize existing infrastructure to ensure the coordination of land use and transportation planning in support of improved resident quality of life, including provisions for pedestrians, trails and bicycles, housing, access to recreation and green space, and protected natural and historic areas

- Improvement and repair of roads and bridges, including increased street connectivity
- Reduce, eliminate, or prevent encroachment on Fort Gordon military installation

Intergovernmental Coordination Goal – to create a culture of collaborative planning and government decision-making, wherein communities join together to define commonalities and development strategies that benefit multiple jurisdictions to further effective growth, increase access to resources, generate cost savings, and promote healthy, active residents

- Examine the possibility of regional code enforcement through the RC

Actions to be Pursued

The following are some key strategies and actions the Regional Commission, in partnership with local governments and other agencies, will be undertaking over the next five (5) years. Additional strategies and actions are located in the "Implementation Program" portion of this document. These strategies and implementation items are considered the CSRA region's important steps towards growing and developing this area with cooperation and inclusiveness for a better quality of life for citizens, business and industry in the region's cities and counties.

STRATEGY: Provide support to local organizations/agencies currently engaged in agritourism and/or heritage tourism and coordinate with local governments to choose target areas for promotion
ACTION Utilize GIS to create thematic or location-based story maps in different counties or groups of counties that highlight unique assets

STRATEGY: Review and update important city/county documents
ACTION: Survey HPCs to pinpoint weaknesses in existing historic preservation ordinances

STRATEGY: Maintain existing infrastructure and secure funding for new infrastructure as needed
ACTION: Create service area maps to support current SDS documents

STRATEGY: Examine and update local land use polices as they relate to community food systems
ACTION: Create and distribute resident fact sheets/guides for doing specific things like having raised beds, composting, or keeping chickens in counties with zoning

STRATEGY: Educate the public and local government officials on what is currently available and what's missing in our regional food system
ACTION: Create a regional map of farmer's markets, community/school gardens, etc

STRATEGY: Increase the number of GICH communities
ACTION: Assist communities with the creation or update of housing inventories and action plans

STRATEGY: Increase the capacity of the CSRA Aging Network to meet the needs of caregivers
ACTION: Increase senior caregiver training through seminars, webinars, social, print and broadcast media and care consultation

STRATEGY: Implement the 2018 Joint Land Use Study recommendations
ACTION: Host the inaugural meeting between Fort personnel and local governments to review development projects and activities and assess challenges

APPENDIX D

WORKSHEETS

USED IN

PLANNING PROCESS

GEMA Worksheet #1 Identify the Hazard Step 1

Date:

Task A. List the hazards that may occur.

1. *Research newspapers and other historical records*
2. *Review existing plans and reports.*
3. *Talk to the experts in your community, state, or region.*
4. *Gather information on Internet Websites.*
5. *Next to the hazard list below, put a check mark in the Task A boxes beside all hazards that may occur in your community or state.*

Task B. Focus on the most prevalent hazard in your community or state.

1. *Go to hazard Websites.*
2. *Locate your community or state on the Wesbite map.*
3. *Determine whether you are in a high-risk area. Get more localized information if necessary.*
4. *Next to the hazard list below, put a check mark in the Task B boxes beside all hazards that post a significant threat.*

	Task A	Task B
Avalanche		
Coastal Erosion		
Coastal Storm		
Dam Failure	X	
Drought	X	X
Earthquake		
Expansive Soils		
Extreme Heat		
Flood	X	X
Hailstorm	X	
Hurricane	X	
Land Subsidence		
Landslide		
Severe Winter Storm	X	X
Tornado	X	X
Tsunami		
Volcano		
Wildfire	X	X
Windstorm		
Lightning	X	X
Tropical Storms	X	X
Thunderstorm Winds	X	X

Hazard or Event Description (Type of hazard, date of event, number of injuries, cost and types of damage, etc.)	**Source of Information**	**Map Available for this Hazard?**
Drought (See Appendix A)	USDA, NCDC, SHELDUS, The Sparta Ishmaelite, Palmer Index	Maps area available for the state as a whole from the Palmer Index See Appendix A
Flood (See Appendix A)	USGS, NCDC, SHELDUS, The Sparta Ishmaelite,	Flood Plain Maps are available See Appendix A
Severe Winter Weather (See Appendix A)	NCDC, SHELDUS,	Maps are available in Appendix A
Hail (See Appendix A)	NCDC, SHELDUS,	No map available
Tornado See (Appendix A)	Tornado History Project, MRCC, NCDC,& SHELDUS,	Map is available See Chapter II. Section IV.
Lightning (See Appendix A)	NCDC, SHELDUS,	No map available
Tropical storms, (See Appendix A)	NCDC, SHELDUS	No map available
Thunderstorm Winds (See Appendix A)	NCDC, SHELDUS	No map is available Map is available for wind zone
Wildfire (See Appendix A)	GFC	Map available for Fire Danger Zone

GLASCOCK COUNTY-WIDE INCLUDES ALL JURISDICTIONS
HAZARD FREQUENCY TABLE

Hazard	Number of Events in Historic Record	Number of Years in Historic Record	Number of Events in Past 10 Years	Number of Events in Past 20 Years	Number of Events in Past 50 Years	Historic Recurrence Interval (years)	Historic Frequency % chance/year	20-year Historic Frequency % chance/year	Past 10 Year Record Frequency Per Year	Past 20 Year Record Frequency Per Year	Past 50 Year Record Frequency Per Year
Hurricane Surge - Cat 1						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	3	71	0	1	2	23.67	4.23	5.00	0	0.05	0.04
Wildfire	925	64	157	304	748	0.07	1445.31	1520.00	15.7	15.2	14.96
Earthquake						#DIV/0!	#DIV/0!	0.00	0	0	0
Tornado	5	71	1	4	4	14.20	7.04	20.00	0.1	0.2	0.08
Thunderstorm Wind	21	71	6	17	20	3.38	29.58	85.00	0.6	0.85	0.4
Hail	28	71	0	4	14	2.54	39.44	20.00	0	0.2	0.28
Drought	29	71	8	20	29	2.45	40.85	100.00	0.8	1	0.58
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	12	71	3	8	12	5.92	16.90	40.00	0.3	0.4	0.24
Lightning	56	64	11	22	54	1.14	87.50	110.00	1.1	1.1	1.08
Dam Failure						#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	24	71	6	18	21	2.96	33.80	90.00	0.6	0.9	0.42
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval. For example: If there have been 20 HazMat Releases in the County in the past 5 years, statistically you could expect that there will be 4 releases a year. Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuracy has been much better in the past 10-20 years (NCDC weather records). 3) It is important to include all significant recorded hazard events which will include periodic updates to this table. By updating and reviewing this table over time, it may be possible to see if certain types of hazard events are increasing in the past 10-20 years.

GLASCOCK COUNTY UNICORPORATED AREAS
HAZARD FREQUENCY TABLE

Hazard	Number of Events in Historic Record	Number of Years in Historic Record	Number of Events in Past 10 Years	Number of Events in Past 20 Years	Number of Events in Past 50 Years	Historic Recurrence Interval (years)	Historic Frequency % chance/ year	20 year Historic Frequency % chance/ year	Past 10 Year Record Frequency Per Year	Past 20 Year Record Frequency Per Year	Past 50 Year Record Frequency Per Year
Hurricane Surge - Cat 1						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	3	71	0	1	2	23.67	4.23	5.00	0	0.05	0.04
Wildfire	925	64	157	304	748	0.07	1445.31	1520.00	15.7	15.2	14.96
Earthquake						#DIV/0!	#DIV/0!	0.00	0	0	0
Tornado	5	74	1	4	4	14.80	6.76	20.00	0.1	0.2	0.08
Thunderstorm Wind	9	71	3	5	8	7.89	12.68	25.00	0.3	0.25	0.16
Hail	16	71	0	1	2	0.00	#DIV/0!	5.00	0.1	0.05	0.04
Drought	29	71	8	20	29	2.45	40.85	100.00	0.8	1	0.58
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	12	71	3	8	12	5.92	16.90	40.00	0.3	0.4	0.24
Lightning						#DIV/0!	#DIV/0!	0.00	0	0	0
Landslide						#DIV/0!	#DIV/0!	0.00	0	0	0
Dam Failure						#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	24	71	6	18	21	2.96	33.80	90.00	0.6	0.9	0.42
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval. For example: If there have been 20 HazMat Releases in the County in the past 5 years, statistically you could expect that there will be 4 releases a year. Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuracy has been much better in the past 10-20 years (NCDC weather records). 3) It is important to include all significant recorded hazard events which will include periodic updates to this table. By updating and reviewing this table over time, it may be possible to see if certain types of hazard events are increasing in the past 10-20 years.

EDGE HILL
HAZARD FREQUENCY TABLE

Hazard	Number of Events in Historic Record	Number of Years in Historic Record	Number of Events in Past 10 Years	Number of Events in Past 20 Years	Number of Events in Past 50 Years	Historic Recurrence Interval (years)	Historic Frequency % chance /year	20 year Historic Frequency % chance /year	Past 10 Year Record Frequency Per Year	Past 20 Year Record Frequency Per Year	Past 50 Year Record Frequency Per Year
Hurricane Surge - Cat 1						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	0	71	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Wildfire	0	64	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Earthquake						#DIV/0!	#DIV/0!	0.00	0	0	0
Tornado	0	71	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Thunderstorm Wind	6	71	0	2	5	11.83	8.45	10.00	0	0.1	0.1
Hail	18	71	0	1	4	3.94	25.35	5.00	0	0.05	0.08
Drought	29	71	8	20	29	2.45	40.85	100.00	0.8	1	0.58
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	12	71	3	8	12	5.92	16.90	40.00	0.3	0.4	0.24
Lightning						#DIV/0!	#DIV/0!	0.00	0	0	0
Landslide						#DIV/0!	#DIV/0!	0.00	0	0	0
Dam Failure						#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	24	71	6	18	21	2.96	33.80	90.00	0.6	0.9	0.42
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval. For example: If there have been 20 HazMat Releases in the County in the past 5 years, statistically you could expect that there will be 4 releases a year. Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuracy has been much better in the past 10-20 years (NCDC weather records). 3) It is important to include all significant recorded hazard events which will include periodic updates to this table. By updating and reviewing this table over time, it may be possible to see if certain types of hazard events are increasing in the past 10-20 years.

GIBSON
HAZARD FREQUENCY TABLE

Hazard	Number of Events in Historic Record	Number of Years in Historic Record	Number of Events in Past 10 Years	Number of Events in Past 20 Years	Number of Events in Past 50 Years	Historic Recurrence Interval (years)	Historic Frequency % chance /year	20 year Historic Frequency % chance /year	Past 10 Year Record Frequency Per Year	Past 20 Year Record Frequency Per Year	Past 50 Year Record Frequency Per Year
Hurricane Surge - Cat 1						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	0	71	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Wildfire	0	64	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Earthquake						#DIV/0!	#DIV/0!	0.00	0	0	0
Tornado	1	71	0	1	1	71.00	1.41	5.00	0	0.05	0.02
Thunderstorm Wind	11	71	0	6	10	6.45	15.49	30.00	0	0.3	0.2
Hail	23	71	0	2	9	3.09	32.39	10.00	0	0.1	0.18
Drought	29	71	8	20	29	2.45	40.85	100.00	0.8	1	0.58
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	12	71	3	8	12	5.92	16.90	40.00	0.3	0.4	0.24
Lightning						#DIV/0!	#DIV/0!	0.00	0	0	0
Landslide						#DIV/0!	#DIV/0!	0.00	0	0	0
Dam Failure						#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	24	71	6	18	21	2.96	33.80	90.00	0.6	0.9	0.42
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval. For example: If there have been 20 HazMat Releases in the County in the past 5 years, statistically you could expect that there will be 4 releases a year. Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuracy has been much better in the past 10-20 years (NCDC weather records). 3) It is important to include all significant recorded hazard events which will include periodic updates to this table. By updating and reviewing this table over time, it may be possible to see if certain types of hazard events are increasing in the past 10-20 years.

MITCHELL

HAZARD FREQUENCY TABLE

Hazard	Number of Events in Historic Record	Number of Years in Historic Record	Number of Events in Past 10 Years	Number of Events in Past 20 Years	Number of Events in Past 50 Years	Historic Recurrence Interval (years)	Historic Frequency % chance /year	20 year Historic Frequency % chance /year	Past 10 Year Record Frequency Per Year	Past 20 Year Record Frequency Per Year	Past 50 Year Record Frequency Per Year
Hurricane Surge - Cat 1						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	0	71	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Wildfire	0	64	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Earthquake						#DIV/0!	#DIV/0!	0.00	0	0	0
Tornado	0	71	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Thunderstorm Wind	10	71	3	6	9	7.10	14.08	30.00	0.3	0.3	0.18
Hail	16	71	0	0	2	4.44	22.54	0.00	0	0	0.04
Drought	29	71	8	20	29	2.45	40.85	100.00	0.8	1	0.58
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	12	71	3	8	12	5.92	16.90	40.00	0.3	0.4	0.24
Lightning						#DIV/0!	#DIV/0!	0.00	0	0	0
Landslide						#DIV/0!	#DIV/0!	0.00	0	0	0
Dam Failure						#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	24	71	6	18	21	2.96	33.80	90.00	0.6	0.9	0.42
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval. For example: If there have been 20 HazMat Releases in the County in the past 5 years, statistically you could expect that there will be 4 releases a year. Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuracy has been much better in the past 10-20 years (NCDC weather records). 3) It is important to include all significant recorded hazard events which will include periodic updates to this table. By updating and reviewing this table over time, it may be possible to see if certain types of hazard events are increasing in the past 10-20 years.

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Glascock County All Jurisdictions

Hazard: Drought, Wildfire, Severe Weather, Winter Storm

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	5,848	5,848	100%	$66,475,855	$66,475,855	100%	2,996	2,996	100%
Commercial	358	358	100%	$20,069,013	$20,069,013	100%	2,996	2,996	100%
Industrial	53	53	100%	$36,794,747	$36,794,747	100%	396	396	100%
Agricultural/forestry	2,337	2,337	100%	$104,483,450	$104,483,450	100%	66	66	100%
Religious/ Non-profit	118	118	100%	$4,081,428	$4,081,428	100%	2,996	2,996	100%
Government	95	95	100%	$3,292,230	$3,292,230	100%	185	185	100%
Education	16	16	100%	$5,851,485	$5,851,485	100%	580	580	100%
Utilities	16	16	100%	$35,050,465	$35,050,465	100%	5	5	100%
Total	8,841	8,841	100%	$276,098,673	$276,098,673	100%	2,996	2,996	100%

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	N
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?		X
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?		X
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		X

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Glascock County All Jurisdictions

Hazard: Flood

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	5,848	5,848	100%	$66,475,855	$66,475,855	100%	2,996	2,996	100%
Commercial	358	358	100%	$20,069,013	$20,069,013	100%	2,996	2,996	100%
Industrial	53	53	100%	$36,794,747	$36,794,747	100%	396	396	100%
Agricultural	2,337	2,337	100%	$104,483,450	$104,483,450	100%	66	66	100%
Religious/ Non-profit	118	118	100%	$4,081,428	$4,081,428	100%	2,996	2,996	100%
Government	95	95	100%	$3,292,230	$3,292,230	100%	185	185	100%
Education	16	16	100%	$5,851,485	$5,851,485	100%	580	580	100%
Utilities	16	16	100%	$35,050,465	$35,050,465	100%	5	5	100%
Total	8,841	8,841	100%	$276,098,673	$276,098,673	100%	2,996	2,996	100%

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	N
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about this particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		X
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		X

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Unincorporated Glascock County

Hazard: Drought, Wildfire, Severe Weather, Winter Storm

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	4,446	4,446	100%	$48,908,588	$48,908,588	100%	1,963	1,963	100%
Commercial	107	107	100%	$10,901,098	$10,901,098	100%	1,963	1,963	100%
Industrial	53	53	100%	$36,794,748	$36,794,748	100%	343	343	100%
Agricultural	2,247	2,247	100%	$101,869,455	$101,869,455	100%	51	51	100%
Religious/ Non-profit	85	85	100%	$3,004,275	$3,004,275	100%	1,963	1,963	100%
Government	33	33	100%	$600,780	$600,780	100%	68	68	100%
Education	0	0	100%	$0	$0	100%	580	580	100%
Utilities	10	10	100%	$33,787,193	$33,787,193	100%	2	2	100%
Total	6,981	6,981	100%	$235,866,135	$235,866,135	100%	1,963	1,963	100%

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	N
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?		X
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?		X
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		X

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Unincorporated Glascock County

Hazard: Flood

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

Flood	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	4,446	47	1%	$48,908,588	$517,027	1%	1,963	98	5%
Commercial	107	0	0%	$10,901,098	$0	0%	1,963	0	0%
Industrial	53	0	0%	$36,794,748	$0	0%	343	0	0%
Agricultural	2,247	14	1%	$101,869,455	$634,701	1%	51	23	45%
Religious/ Non-profit	85	0	0%	$3,004,275	$0	0%	1,963	0	0%
Government	33	0	0%	$600,780	$0	0%	68	0	0%
Education	0	0	100%	$0	$0	#DIV/0!	580	0	0%
Utilities	10	0	0%	$33,787,193	$0	0%	2	0	0%
Total	6,981	61	1%	$235,866,135	$1,151,728	0%	1,963	121	6%

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	**N**
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about this particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		X
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	X	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Edgehill

Hazard: Drought, Wildfire, Severe Weather, Winter Storm

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	86	86	100%	$851,500	$851,500	100%	22	22	100%
Commercial	8	8	100%	$87,215	$87,215	100%	22	22	100%
Industrial	0	0	100%	$0	$0	100%	0	0	#DIV/0!
Agricultural	8	8	100%	$208,948	$208,948	100%	3	3	100%
Religious/ Non-profit	2	2	100%	$51,008	$51,008	100%	22	22	100%
Government	3	3	100%	$23,288	$23,288	100%	9	9	100%
Education	0	0	100%	$0	$0	100%	0	0	#DIV/0!
Utilities	0	0	100%	$0	$0	100%	1	1	100%
Total	107	107	100%	$1,221,959	$1,221,959	100%		8	#DIV/0!

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	N
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?		X
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?		X
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		X

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Edge Hill

Hazard: Flood

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

Flood	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	86	0	0.00%	$851,500	$0	0.00%	22	0	0%
Commercial	8	0	0.00%	$87,215	$0	0.00%	22	0	0%
Industrial	0	0	100.00%	$0	$0	#DIV/0!	0	0	#DIV/0!
Agricultural	8	0	0.00%	$208,948	$0	0.00%	3	0	0%
Religious/ Non-profit	2	0	0.00%	$51,008	$0	0.00%	22	0	0%
Government	3	0	0.00%	$23,288	$0	0.00%	9	0	0%
Education	0	0	100.00%	$0	$0	#DIV/0!	0	0	#DIV/0!
Utilities	0	0	100.00%	$0	$0	#DIV/0!	1	0	0%
Total	107	0	0.00%	$1,221,959	$0	0.00%	8	0	0%

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	N
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about this particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		X
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	X	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: City of Gibson

Hazard: Drought, Wildfire, Severe Weather, Winter Storm

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	913	913	100%	$11,972,170	$11,972,170	100%	869	869	100%
Commercial	193	193	100%	$5,821,815	$5,821,815	100%	869	869	100%
Industrial	0	0	#DIV/0!	0	0	#DIV/0!	0	#DIV/0!	#DIV/0!
Agricultural	30	30	100%	829,325	829,325	100%	5	5	100%
Religious/ Non-profit	12	12	100%	$670,748	$670,748	100%	869	869	100%
Government	44	44	100%	$2,209,335	$2,209,335	100%	66	66	100%
Education	15	15	100%	5,850,985	5,850,985	100%	0	0	#DIV/0!
Utilities	3	3	100%	918,778	918,778	100%	1	1	100%
Total	1,210	1,210	100%	$28,273,156	$28,273,156	100%	869	869	100%

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	N
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?		X
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?		X
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		X

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: City of Gibson

Hazard: Flood

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

Flood	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	913	40	0%	$11,972,170	$0	0.00%	869	64	7.36%
Commercial	193	0	0%	$5,821,815	$0	0.00%	869	0	0.00%
Industrial	0	0	#DIV/0!	$0	#DIV/0!	#DIV/0!	0	0	#DIV/0!
Agricultural	30	1	3%	$829,325	$27,644	3.33%	5	0	0.00%
Religious/ Non-profit	12	0	0%	$670,748	$0	0.00%	869	0	0.00%
Government	44	0	0%	$2,209,335	$0	0.00%	66	0	0.00%
Education	15	0	0%	$5,850,985	$0	0.00%	0	0	#DIV/0!
Utilities	3	0	0%	$918,778	$0	0.00%	1	0	0.00%
Total	1,210	41	3%	$243,226,108	$27,644	0.01%	869	64	7.36%

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	N
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about this particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		X
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	X	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Mitchell

Hazard: Drought, Wildfire, Severe Weather, Winter Storm

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	406	406	100.000%	4,720,730.00	4,720,730.00	100.000%	199	199	100%
Commercial	52	52	100.000%	1,688,152.50	1,688,152.50	100.000%	199	199	100%
Industrial			#DIV/0!			#DIV/0!	0	0	#DIV/0!
Agricultural/foresty	47	47	100.000%	1,571,652.50	1,571,652.50	100.000%	11	11	100%
Religious/ Non-profit	19	19	100.000%	355,397.50	355,397.50	100.000%	199	199	100%
Government	15	15	100.000%	458,827.50	458,827.50	100.000%	37	37	100%
Education	1	1	100.000%	500.00	500.00	100.000%	0	0	#DIV/0!
Utilities	3	3	100.000%	312,420.00	312,420.00	100.000%	1	1	100%
Total	543	543	100.000%	9,107,680	9,107,680	100.000%	0	0	#DIV/0!

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	**N**
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?		X
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?		X
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		X

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Mitchell

Hazard: Flood

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

Flood	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# in Community of State	# in Hazard Area	% in Hazard Area	$ in Community or State	$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	406	0	0.000%	4,720,730.00	0	0.000%	199	0	0%
Commercial	52	0	0.000%	1,688,152.50	0	0.000%	199	0	0%
Industrial		0	#DIV/0!		0	0.000%	0	0	#DIV/0!
Agricultural/foresty	47	3	6.383%	1,571,652.50	100,318	6.383%	11	0	0%
Religious/ Non-profit	19	0	0.000%	355,397.50	0	0.000%	199	0	0%
Government	15	0	0.000%	458,827.50	0	0.000%	37	0	0%
Education	1	0	0.000%	500.00	0	0.000%	0	0	#DIV/0!
Utilities	3	0	0.000%	312,420.00	0	0.000%	1	0	0%
Total	543	3	0.552%	9,107,680	100,318	1.101%	0	0	#DIV/0!

Task B. Determine whether (and where) you want to collect additional inventory data.

	Y	**N**
1. Do you know where the greatest damages may occur in your area?	X	
2. Do you know whether your critical facilities will be operational after a hazard event?		X
3. Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	X	
6. Is there concern about this particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		X
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	X	

STAPLEE Criteria	S		T			A			P			L			E				E					
	(Social)		(Technical)			(Administrative)			(Political)			(Legal)			(Economic)				(Environmental)					
Considerations → for Alternative Actions ↓	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent With Federal Laws	Alternative Actions
Investigate greater participation Level in the CRS		+				-	-		-		-					-								
Participate in the NFIP		+	+			+	+									+			+					
Continue to assess stormwater runoff.	+	+	+	+		+	+	+	+						+				+			+		
Construct as needed, more storm water retention facilities, storm drain improvements and channel improvements to protect existing and new developments.	+	+	+	+		+	+	+	+						+	+			+					

Clear run-off and water retention ditches.	+	+		+		+	+		+									-							
Seek funding for communication towers and voice repeater systems.		+	+	+		+	+	+							+	+			+			+			
Adopt ordinances to limit and control building and development in known flood prone areas.		+	-	+		-	+								+	+		-				+			
Promote the preservation of areas in and around watercourses.			+	+		+	-	+							+			-	+			+			
Add greenspace to known flood prone areas.	+	+	+	+		+	-	+	+		+				+	-		-				+			
Evaluate existing water system upgrade as needed	+	+	-	-		-	-					+			+	-		-				+			
Investigate methods to reduce non-point source pollution.			+	+		+	-	+				+			+	-		-	+			+			
Promote increased surface water usage and surface artesian flow for irrigation.	+		+	+		-	-	+							+	+		-	+			+			
Enact a program to educate the residents about water conservation issues	+		+	+		-	+	+							+	+		+	+			+			
Increase public awareness of watering restrictions and bans.	+	+	+	+		+	+	+	+		+	+			+	+			+			+			

Develop a public awareness campaign to promote water-saving campaigns (i.e. low-flow water saving devices)	+		+	+		+	+	+	+		+				+	+		-				+		
Continue training of all firefighters to include wildland fire training.			+	+		+	-	+	+		+				+	+		-				+		
Seek funding for needed firefighting equipment	+		+	+		+	+	+	+		+				+	+		-				+		
Inventory and replace or install more fire hydrants as needed.	+		+	+		+	+	+	+		+				+	+		-				+		
Seek funding fire engines and tankers for local fire departments.			+	+		+	-	+	+		+				+	+		-				+		
Enforce defensible space (30-ft minimum setbacks) between buildings and flammable brush and forestland where possible.			+	+		+	-	+	+		+				+	+		-				+		
Continue following GFC service of construction and maintenance of firebreaks around forests and structures, along abandoned roadbeds.			+	+		+	-	+	+		+				+	+		-				+		
Strictly follow GFC's guidelines			+	+		+	-	+	+		+				+	+		-				+		

for control burns and permits.																									
Implement the Firewise Community Initiative where appropriate			+	+		+	-	+	+		+				+	+		-				+			
Improve public awareness of wildfire techniques and awareness of wildfire dangers.	+		+	+		-	+	+	+	+	-				+	+		-	+			+			
Adopt Building Codes	+		+	+		-	+	+	+	+	-				+	+		-	+			+			
Adopt Zoning Regulations	+	+	+	+		+	+	+	+						+	+		-	+			+			
To the greatest extent possible, identify all owners of inadequately installed manufactured homes offer a financial incentive to retrofit them with an appropriate level of anchoring and support.	+		+	+		+	+	+	+						+	+		-				+			
Equip all county and city recreation parks with adequate early severe weather warning and lightning detection devices.	+		+	+		+	+	+	+						+	+		-				+			
Inspects public buildings and critical facilities and retrofit to reinforce windows, doors, and roofs as needed	+		+	+		+	+	+	+						+	+		-	+			+			

Enforce building codes for all new buildings and critical facilities.	+		+	+		+	+	+	+						+	+		-				+		
Inspect all county and municipal critical facilities for proper grounding.	+		+	+		+	+	+	+						+	+		-				+		
Install lightning rods in high value critical facilities.	+		+	+		+	+	+	+						+	+						+		
Install surge protectors on critical facilities' electronic equipment in essential county and city facilities.	+		+	+		+	+	+	+						+	+						+		
Review current Emergency Response Plan and update when needed.	+		+	+		+	+	+	+						+	+						+		
Review current evacuation plans paying particular attention to vulnerable populations and update as needed.	+	+	+	+		+	+	+	+						+	+						+		
Provide boat owners with safety tie down procedures with boat registration.	+		+	+		-	+	+	+						+	+						+		
Develop a public awareness program about the installation of lightning grounding systems on critical infrastructure,	+		+	+		+	+	+	+						+	+		-				+		

residential and business properties.																									
Inventory all critical facilities and assess generator needs. Install generators where needed.	+		+	+		-	+	+	+						+	+						+		
Seek funding to ensure all current and future emergency shelters have back-up generators.	+		+	+		+	+	+	+						+	+						+		
Educate the public on shelter locations and evacuation routes	+		+	+		-	+	+	+						+	+						+		
Develop public education and awareness programs regarding severe weather events to include home safety measures, purchase of weather radio and personal safety measures before, during and after an event.	+		+	+		+	+	+	+						+	+						+		
Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after.	+		+	+		-	+	+	+						+	+						+		

Review current codes to comply with and enforce the State building code with criteria for design snow load for buildings and structures.	+		+	+		+	+	+	+						+	+									
Create a data base to record hazard event information.	+		+	+		-	+	+	+						+	+		-							
Conduct dam breach analysis to identify assets and population at risk in the event of a failure.	+		+	+		-	+	+	+						+	+			+						
Draft ordinance prohibiting development in dam breach zone.	+		+	+		-	+	+	+						+	+		-	+						
Install dam failure alert systems.	+		+	+		+	+	+	+						+	+		-							
Inventory existing road equipment and purchase needed equipment to maintain roads before, during and after a hazard event.	+		+	+		+	+	+	+						+	+									
Develop coordinated management strategies for deicing, snow plowing, and clearing roads of fallen trees and debris	+		+	+		+	+	+	+						+	+		-							
Promote the construction of safe rooms in	+		+	+		-	+	+	+						+	+									

shelter areas and in public buildings.																								
Update 911 equipment as needed.	+		+	+		+	+	+	+						+	+								
Request that all new education facilities be designed to serve as public shelters for emergency purposes.	+		+	+		+	+	+	+						+	+								
Promote and participate in the following American Red Cross Programs																								
• Disaster Resistant Neighborhoods Program																								
• Business and Industry Preparedness Seminar																								
• Community Disaster Education Preparedness presentations	+		+	+		-	+	+	+						+	+								
Create an EMA website and Facebook Page with information pertaining to Emergency Preparedness.	+		+	+		+	+	+	+						+	+								
Work with local cable and radio providers to enhance and broadcast public education on Emergency Preparedness.	+		+	+		-	+	+	+						+	+		-						

Implement GIS technology on fire and emergency management vehicles so data can be readily available in the field so more accurate, timely assessments for future mitigation planning activities.	+		+	+		+	+	+	+						+	+									
Purchase a portable sewer transfer pumping unit	+		+	+			+	+	+						+	+		-				+			
Herman Nelson Warming System AIR HEATER w/TRAILER	+		+	+			+	+	+						+	+		-				+			
Purchase a Brush Fire Truck	+		+	+		+	+	+	+						+	+		-				+			
Purchase a Bucket Truck to Remove Limbs along county road right-of-ways	+		+	+		+	+	+	+						+	+		-				+			
Pave Roads in county that are unpassable due to flooding	+		+	+		+	+	+	+						+	+		-				+			
Provide NOAA weather radios to elderly and handicap populations (moved to all hazards).	+		+	+		+	+	+	+						+	+		-				+			
Review existing comprehensive, development and land use plans to address flood prone areas.	+		+	+		+	+	+	+						+	+		-				+			

Preform procurement to contract with debris removal firm to have contract in place before hazards to ensure firm can move in immediately.	+		+	+		+	+	+	+						+	+		-				+		

Facility Name

Location

Longitude | Latitude

Location Method: [ ] Geocode [ ] GPS [ ] GPS-closed [ ] GPS - dnr [ ] Manual add

Address 1:

Address 2: (PO BOX)

City: Zip:

Jurisdiction:

Daytime Occupancy: Night Occupancy:

Building Value

Number of Stories: Functional Use Value:

Year Constructed: Displacement Cost Per Day:

Area Sq Ft: Contents Value:

Bldg Value: Contents Value Year:

Valuation Year: Contents Description:

*Mark any or all that apply. See back of page for details.

- [ ] Essential Facility
- [ ] Transportation Facility
- [ ] Lifeline System
- [ ] High Potential Loss
- [ ] HazMat Facility
- [ ] Important Facility
- [ ] Vulnerable Population
- [ ] Economic Asset
- [ ] Special Consideration
- [ ] Historical Consideration
- [ ] Other Facility

Other Details:

See back of page for codes.

Building Type Code:

Occupancy Code:

*Choose Only One Faciltiy Type

Facility Type:

- [ ] Pre-kindergarten
- [ ] Kindergarten
- [ ] Primary School
- [ ] Elementary School
- [ ] Middle School
- [ ] Middle/High School
- [ ] High School, Public
- [ ] Private School
- [ ] Other School
- [ ] Alternative Division
- [ ] Alternative School
- [ ] Private Two-Year College
- [ ] Public Two-Year College
- [ ] Private Four-Year College
- [ ] Public Four-Year College
- [ ] Private University
- [ ] Public University
- [ ] Public Vocational Technical School
- [ ] Psychoeducational
- [ ] Adult Edu. Center
- [ ] Airport
- [ ] City Hall
- [ ] City Jail
- [ ] County Correctional Institution
- [ ] County Jail
- [ ] Courthouse
- [ ] Federal Penitentiary
- [ ] Fire Station
- [ ] Wastewater Treatment Plant
- [ ] Water System
- [ ] C and D Construction and Demolition Landfill
- [ ] L (Dry Trash) Landfill
- [ ] MSWL (Municipal Solid Waste Landfill)
- [ ] SL (Sanitary Waste) Landfill
- [ ] Recycling Center
- [ ] Transfer Station
- [ ] Hospital, Admissions Entrance
- [ ] Hospital, Emergency Entrance
- [ ] Library
- [ ] Marshals Office
- [ ] Police Station
- [ ] Sheriffs Office
- [ ] Emergency Services
- [ ] State Prison
- [ ] Other

Building Valuation Type: [ ] 0 = Unknown [ ] 1 = Market Value [ ] 2 = Assessed Value [ ] 3 = Replacement Value [ ] 99 = Other

Building Type Code:

[ ] C1 = Concrete Moment Frame
[ ] C2 = Concrete Shear Walls
[ ] C3 = Concrete Frame with Unreinforced Masonry Infill Walls
[ ] MH = Manufactured Housings
[ ] O = Other Building Type
[ ] P1 = Precast Concrete Tilt-Up Walls
[ ] P2 = Precast Concrete Frames with Cast-in-Place Concrete Shear Walls
[ ] RM1 = Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms
[ ] RM2 = Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms
[ ] S1 = Steel Moment Frame
[ ] S2 = Steel Braced Frame
[ ] S3 = Steel Light Frame
[ ] S4 = Steel Frame with Cast-in-Place Concrete Shear Walls
[ ] S5 = Steel Frame with Unreinforced Masonry Infill Walls
[ ] URM = Unreinforced Masonry Bearing Walls
[ ] UNK = Unknown Building Type

Occupancy Code:

[ ] AGR1 = Agriculture Facilities and Offices
[ ] COM1 = Retail Trade
[ ] COM2 = Wholesale Trade
[ ] COM3 = Personal and Repair Services
[ ] COM4 = Professional/Technical Services
[ ] COM5 = Banks
[ ] COM6 = Hospital
[ ] COM7 = Medical Office and Clinic
[ ] COM8 = Entertainment _Recreation
[ ] COM9 = Theaters
[ ] COM10 = Parking Garages
[ ] EDU1 = Grade Schools and Admin. Offices
[ ] EDU2 = Colleges and Universities
[ ] GOV1 = Government - General Services
[ ] GOV2 = Government - Emergency Response
[ ] UNK = Unknown
[ ] IND1 = Heavy Industrial
[ ] IND2 = Light Industrial
[ ] IND3 = Food/Drugs/Chemicals
[ ] IND4 = Metals/Minerals Processing
[ ] IND5 = High Technology
[ ] IND6 = Construction Facilities and Offices
[ ] REL1 = Churches and Non-Profit Organizations
[ ] RES1 = Single Family Dwellings
[ ] RES2 = Manufactured Housing
[ ] RES3A = Duplex
[ ] RES3B = 3 to 4 Units
[ ] RES3C = 5 to 9 Units
[ ] RES3D = 10 to 19 Units
[ ] RES3E = 20 to 49 Units
[ ] RES3F = > 50 Units
[ ] RES4 = Temporary Lodging
[ ] RES5 = Institutional Dormitories
[ ] RES6 = Nursing Homes

Definitions:

Essential Facility
An essential facility is a critical facility that is essential to the health and welfare of the population. The potential consequences of losing functions or services from this type of facility are higher than any other type of structures. Interruption or loss of function from these types of facilities would jeopardize human life and public safety. Essential facilities include: hospitals and other medical facilities, police and fire stations, emergency operations centers, evacuation shelters and schools, and other structures that house first responder equipment or personnel.

Transportation Systems
Transportation infrastructure or facilities. Examples include:
Airways: airports, heliports,
Highways: bridges, tunnels, roadbeds, overpasses, transfer stations.
Railways: tracks, tunnels, bridges, rail yards, depots, switching stations.
Waterways: canals, locks, ports, ferries, dry-docks, piers.

Lifeline System
Corridors of flow for equipment, supplies and services. Transportation systems can also be Lifeline Systems. The best physical example of a lifeline would be a bridge and right-of-way that could include utilities and communication. Examples include: potable water, wastewater, oil, natural gas, electric power, and communication.

High Potential Loss Facility
Facilities that would have a high human loss associated with their damage or failure. Examples include: nuclear power plants, dams and military installations.

Hazardous Materials Facility
Facilities that produce or house industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins. Check to see if your county has a Local Emergency Planning Committee (LEPC) and an existing Hazardous Material listing.

Important Facility
These types of facilities are vital for overall day to day community functions, and ensure full recovery in the wake of a hazard or disaster event. Examples include: government buildings and functions, major employers in the area, bank and financial institutions, non-nuclear power generators, certain commercial establishments such as grocery stores, hardware stores and gas stations, technical schools, colleges, and universities.

Vulnerable Population
Is there a vulnerable human population that occupies the structure that would need special assistance, medical care or other actions before, during or after a hazard event or disaster? Examples include: elderly people, jail populations, people with mental, physical or mobility problems, and non-English speaking populations.

Economic Assets
Larger economic assets that are vital to the prosperity of the community. Examples include major employers and financial centers in your community or area that impact the local or regional economy if significantly disrupted.

Special Considerations
High-density areas (residential or commercial development), if damaged or impacted in a hazard event or disaster, could result in high death tolls or injury rates. Examples include: larger factories or industries, large vertical apartment or housing complexes.

Historic Considerations
Historic, cultural or natural resources, including structures and areas that are identified and protected under state or federal law. Examples include: state parks, federal parks, museums and historic districts.

Other Facilities
Any other significant locally identified facility that does not fit into another category of those listed above.

Comments:

EXHIBIT "H"

Date: _____

XYZ County PDM Progress Payment Request

Instructions: All requests for progress payments must be supported by documentation supporting actual expenditures. Itemize each expenditure below to the fullest detail possible, including a reference to specific sites or elements of work. Attach documentation that supports this progress payment request, such as copies of bills of sale, invoices, receipts, and canceled checks evidencing payment. Do not send originals. As project administrative costs are calculated on a sliding scale, do not include this in your request for payment. Attach a continuation sheet if necessary.

AGREEMENT NUMBER_____ FEMA Project Number_____

SUBGRANTEE NAME: XYZ County_____ (FIPs code) ID. Number:_____

Site Reference or Element of Work	Approved Amount	Previous Payment	Current Request	Description of Documentation Attached in Support of this Payment Request

(from continuation sheet attached) **SUBTOTAL**	
TOTAL	
Less Subgrantee Share (25%) or 15% if State match is applicable)	
Less State Share if applicable (10%)	
NET AMOUNT REQUESTED	

Under penalty of perjury, I certify that to the best of my knowledge and belief the data above are correct and that all outlays were made in accordance with the grant conditions or other agreement, comply with procurement regulations contained within the 44 CFR, Part 13, and that payment is due and has not been previously requested. I am familiar with Section 317 of Public Law 93-288, as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. I understand that any part of this payment request that is not supported by cost documents and/or expended within the scope of the approved project will be refunded to the State of Georgia within 30 days of receiving the deobligation notice.

_____

Signature of Subgrantee's Authorized Representative (and printed name)

Georgia Emergency Management Agency
Labor Expense Summary

1. APPLICANT	2. Disaster Number	3. Period Covering	Page Of
4. Purpose/Work Performed		5. Program	

STAFF		DATES AND HOURS WORKED								COSTS		
		DATE								TOTAL HOURS	HOURLY RATE	TOTAL COSTS
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0		$ -
NAME	TITLE	Hours								0		$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
											Total Cost for Labor Time	$ -

I CERTIFY THAT THE ABOVE INFORMATION WAS OBTAINED FROM PAYROLL RECORDS, INVOICES OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.

I CERTIFY THAT THE ABOVE COSTS ARE NOT BEING USED FOR LOCAL MATCH FOR ANOTHER FEDERAL GRANT.

Signature	TITLE	DATE

APPENDIX E

COPIES OF REQUIRED PLANNING DOCUMENTS

From:	Michael Kimball
To:	Mike Lyons (ema@glascockcountyga.com)
Bcc:	Angela Barrow (cityofedgehill@gmail.com); Billy Faulk (b.faulk@southernco.com); Brandon Davis (bdavis@gfc.state.ga.us); Connie Kitchens-Jackson (CONNIE_KITCHENS@THERMOKING.COM); Jaunice Gordy (jaunice.gordy@uga.edu); Jeremy Kelley (glso@bellsouth.net); Jim Holton (jholton@glascock.k12.ga.us); Lori Boyen (lboyen@glascockcountyga.com); Mark Shelton (mshelton202@gmail.com); Michael May (chiefmay101@outlook.com); Sara Simmons (mitchelltownof@bellsouth.net); Tammy Leonard (Tammy.Leonard@dhs.ga.gov); Timmy Landrum; Wanda Davis (wdavis@glascock.k12.ga.us)
Subject:	Glascock County Pre Hazard Mitigation Kick Off Meeting
Date:	Wednesday, October 20, 2021 11:04:00 AM

Hello everyone,

Glascock County will begin its five-year update of the FEMA approved Pre-Disaster Hazard Mitigation Plan. As part of the planning process, Glascock County is holding a public meeting on October 27, 2021 at 6:00 pm at the Glascock County Fire/EMA building located at 676 West Main Street, Gibson, GA. Civic organizations, local businesses, and citizens of Glascock County, as well as the cities of Gibson, Edgehill, and Mitchell are encouraged to attend. Feel free to forward this email to anyone you believe may be interested in attending. The purpose of the meeting will be to outline the planning process and gather public input. Please contact EMA Director Mike Lyons at 706-598-2811 if you have any questions. See you there.

Michael Kimball
Disaster Relief Coordinator
CSRA Regional Commission
3623 Walton Way Ext., Suite 300
Augusta, GA 30909
Phone: 706-650-5696

From: Michael Kimball
To: Mike Lyons (ema@glascockcountyga.com)
Bcc: abrett@jeffersoncountyga.gov; Angela Barrow (cityofedgehill@gmail.com); Brett Cook (bcook@harlemga.org); Casey Broom (cbroom@lincolncountyga.com); City of Augusta (city.administrator@augustaga.gov); City of Avera (averacityof@bellsouth.net); City of Crawfordville (cityhall3063@nu-z.net); City of Gibson (cityofgibson3900@bellsouth.net); City of Grovetown (clerk@grovetownga.us); City of Hephzibah (cityofhephzibah@bellsouth.net); City of Lincolnton (citylinc@nu-z.net); City of Midville (cityofmidville@pineland.net); City of Norwood (mccord32659@bellsouth.net); City of Rayle (jechols72@aol.com); City of Sardis (cityofsardis@att.net); City of Sparta (spartacity@bellsouth.net); City of Tennile (tennillecityclerk@gmail.com); City of Tignal (cityoftignal@nu-z.net); City of Vidette (cityofvidette@gmail.com); City of Warrenton (cityofw1@bellsouth.net); Daniel Thomas (dwthomasj12@aol.com); Darrell Adams (dakotachico@nu-z.net); David Crawley (dcrawley@thomson-mcduffie.net); Debbie Moore (dmoore@harlemga.org); Divenskil@yahoo.com; Don Powers (Don.Powers@thomson-mcduffie.net); Dorenta Smith (deepstep@outlook.com); Dustin Peebles (dspeebles@washingtoncountyga.gov); Elaine Matthews (ematthews@cityofgrovetown.com); Glascock County (glascockboc@classicsouth.net); Grady Saxon (gsaxon01@yahoo.com); Hancock County (countyclerk@hancockcountyga.gov); Harold Moore (haroldmoore75@gmail.com); J Waller (jwaller@cityofgrovetown.com); Jeff Brantley (jbrantley@cityofmillenga.gov); Jerome Alexander (jerome.alex1964@gmail.com); Jerry Coalson (jcoalson@waynesboroga.com); Jerry Henry (jhen5@att.net); Jim Anderson (janderson@jeffersoncountyga.gov); John Graham (john@warrencountyga.gov); Judy McCorkle (jmccorkle@sandersville.net); Ken Westbrook (westbrookken@yahoo.com); Lori Boyen (lboyen@glascockcountyga.com); Loriann Chancey (cityofblythe@comcast.net); Margaret Pinion; Mario Chapple (mariochapple@yahoo.com); Meschery Pollard (ckeysville@aol.com); Mie Lucas (dlucas@augustaga.gov); Phillip Steward (blythesmayor@gmail.com); Regina Freeman (cityofoconee@NLAmerica.com); Renee Brown (reneeparzenbrown@yahoo.com); Richard Sapp (richard-sapp@att.net); Robert Fields (jfields@jchs.com); Rosemary Baughman (dhbdhb3610@gmail.com); Roxanne Ashmore (rbashmore@lincolncountyga.com); Russell Riner (firechief@sandersville.net); Sara Simmons (mitchelltownof@bellsouth.net); Scott Johnson (sjohnson@columbiacountyga.gov); Sean Kelley (kbprintinc@gmail.com); Shawn Granato (sgranato@columbiacountyga.gov); Sherri Bailey (sbailey@washingtonwilkes.org); Sistie Hudson (sistiehudson@aol.com); Stephen Sewel (stephen.sewell@thomas-mcduffiega.gov); Steve Matthews (smathews@burkecounty-ga.gov); Town of Bartow (townbartow@hotmail.com); Town of Davisboro (dboroclerk@pineland.net); Town of Dearing (townofdearing@bellsouth.net); Town of Girard (kreddick.townofgirard@gmail.com); Town of Harrison (townofharrison@bellsouth.net); wilkescountyems@lycos.com
Subject: Glascock County Pre Disaster Mitigation Kick Off Meeting
Date: Wednesday, October 20, 2021 11:07:00 AM

Hello everyone,

Glascock County has received a grant from the FEMA to update their Approved Pre-Disaster Mitigation Plan (PDM). The plan is required to be updated every five years. One of the plan requirements is to invite neighboring communities to provide input into the planning process. The Glascock County PDM Committee would like to extend an invitation to your agency to participate. Warren County is holding a public meeting October 27, 2021 at 6:00 pm the Glascock County Fire/EMA Building located at 676 West Main Street, Gibson, GA. Please contact Warren County EMA Director Mike Lyons at 706-598-2811 with any questions.

Michael Kimball
Disaster Relief Coordinator
CSRA Regional Commission
3623 Walton Way Ext., Suite 300
Augusta, GA 30909
Phone: 706-650-5696

GLASCOCK COUNTY PDM PLANNING TEAM MEETING #1
WEDNESDAY, OCTOBER 27, 2021 AT 6:00 PM

NAME	TITLE and AGENCY	EMAIL
1. Scott Lamb	County Commissioner	Lambs@bellsouth.net
2. Jeremy Kelley	Glascock Co SO	jeremy.kelley@glascockcountysheriff.com
3. MICHAEL MAY	GLASCOCK CO. F.D.	CHIEFMAY101@OUTLOOK.COM
4. Lori Boyer	Glascock County B.O.C.	lboyer@glascockcountyga.com.
5. Mike Lyons	Glascock County EMA	ems@glascockcounty.gov.com
6. Frank McHaley	First Responder	
7. Tony Mastucci	GCSO	
8. Mark Shelton	Glascock Fire Dept / EMA	mshelto202@gmail.com
9.		
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12.		
13.		

Public Meeting

Glascock County Pre-Disaster Hazard Mitigation Plan Update

Glascock County will hold the second meeting for its five-year update of the FEMA approved Pre-Disaster Hazard Mitigation Plan. As part of the planning process, Glascock County is holding a public meeting on January 19, 2022, at 6:00 pm at the Glascock Fire/EMA building located at 676 West Main Street, Gibson, GA. Civic organizations, local businesses, and citizens of Glascock County are encouraged to attend. The purpose of the meeting will be to outline the planning process and gather public input. Please contact EMA Director Mike Lyons at 706-598-2811 if you have any questions.

Glascock County is committed to providing all persons with equal access to its services, programs, activities, education, and employment regardless of race, color, national origin, religion, sex, familial status, disability, or age. Persons with special needs relating to handicapped accessibility or foreign language shall contact Rhonda Phillips, County Clerk, at 706-598-2671 prior to January 19, 2022th. This person can be located at 64 Warren Street, Gibson, GA between the hours of 8:00 am – 5:00 pm Monday, Tuesday, Thursday, and Friday and on Wednesday from 8:00 am until 12:00 pm except holidays. Persons with hearing disabilities can contact the Georgia Relay Services at (TDD) 1-800-255-0056 or (Voice) 1-800-255-0135.

From:	Michael Kimball
To:	Mike Lyons (ema@glascockcountyga.com)
Cc:	Melissa Alcantara
Bcc:	abrett@jeffersoncountyga.gov; Angela Barrow (cityofedgehill@gmail.com); Blake Thompson (bthompson@wilkescountyems.com); Brett Cook (bcook@harlemga.org); Casey Broom (cbroom@lincolncountyga.com); City of Augusta (city.administrator@augustaga.gov); City of Avera (averacityof@bellsouth.net); City of Crawfordville (cityhall3063@nu-z.net); City of Gibson (cityofgibson3900@bellsouth.net); City of Grovetown (clerk@grovetownga.us); City of Hephzibah (cityofhephzibah@bellsouth.net); City of Lincolnton (citylinc@nu-z.net); City of Midville (cityofmidville@pineland.net); City of Norwood (mccord32659@bellsouth.net); City of Rayle (jechols72@aol.com); City of Sardis (cityofsardis@att.net); City of Sparta (spartacity@bellsouth.net); City of Tennile (tennillecityclerk@gmail.com); City of Tignal (cityoftignal@nu-z.net); City of Vidette (cityofvidette@gmail.com); City of Warrenton (cityofw1@bellsouth.net); Daniel Thomas (dwthomasj12@aol.com); Darrell Adams (dakotachico@nu-z.net); David Crawley - McDuffie County BOC (dcrawley@thomson-mcduffie.net); Debbie Moore (dmoore@harlemga.org); Divenskil@yahoo.com; Don Powers - City of Thomson (Don.Powers@thomson-mcduffie.net); Dorenta Smith (deepstep@outlook.com); Dustin Peebles (dspeebles@washingtoncountyga.gov); Elaine Matthews (ematthews@cityofgrovetown.com); Glascock County (glascockboc@classicsouth.net); Grady Saxon (gsaxon01@yahoo.com); Hancock County (countyclerk@hancockcountyga.gov); Harold Moore (haroldmoore75@gmail.com); J Waller (jwaller@cityofgrovetown.com); Jeff Brantley (jbrantley@cityofmillenga.gov); Jerome Alexander (jerome.alex1964@gmail.com); Jerry Coalson (jcoalson@waynesboroga.com); Jerry Henry (jhen5@att.net); Jim Anderson (janderson@jeffersoncountyga.gov); John Graham - Warren County Board of Commission (john@warrencountyga.gov); Judy McCorkle (jmccorkle@sandersville.net); Ken Westbrook (westbrookken@yahoo.com); Lori Boyen - Glascock County Board of Commissioners (lboyen@glascockcountyga.com); Loriann Chancey (cityofblythe@comcast.net); Margaret Pinion; Mario Chapple (mariochapple@yahoo.com); Meschery Pollard (ckeysville@aol.com); Mie Lucas (dlucas@augustaga.gov); Mike Lyons (ema@glascockcountyga.com); Phillip Steward (blythesmayor@gmail.com); Regina Freeman (cityofoconee@NLAmerica.com); Renee Brown (reneeparzenbrown@yahoo.com); Richard Sapp (richard-sapp@att.net); Robert Fields (jfields@jchs.com); Rosemary Baughman (dhbdhb3610@gmail.com); Roxanne Ashmore (rbashmore@lincolncountyga.com); Russell Riner (EMA@washingtoncountyga.gov); Sara Simmons (mitchelltownof@bellsouth.net); Scott Johnson (sjohnson@columbiacountyga.gov); Sean Kelley (kbprintinc@gmail.com); Shawn Granato (sgranato@columbiacountyga.gov); Sherri Bailey (sbailey@washingtonwilkes.org); Sistie Hudson (sistiehudson@aol.com); Stephen Sewel (Stephen.Sewell@thomson-mcduffie.net); Steve Matthews (smathews@burkecounty-ga.gov); Town of Bartow (townbartow@hotmail.com); Town of Davisboro (dboroclerk@pineland.net); Town of Dearing (townofdearing@bellsouth.net); Town of Girard (kreddick.townofgirard@gmail.com); Town of Harrison (townofharrison@bellsouth.net)
Subject:	Pre Disaster Hazard Mitigation Planning Meeting #2
Date:	Wednesday, January 12, 2022 8:28:00 AM

Good morning,

Glascock County is holding their second meeting to update their Pre-Disaster Mitigation Plan (PDM). This plan is required by FEMA to be updated every five years. One of the plan requirements is to invite neighboring communities to provide input into the planning process. The Glascock County PDM Committee would like to extend an invitation to your agency to participate. The meeting will be held on January 19, 2022, at 6pm at the Glascock County Fire/EMA Building located at 676 West Main Street, Gibson, GA. Please contact Glascock County EMA Director Mike Lyons at 706-598-2811 with any questions.

Michael Kimball
Disaster Relief Coordinator
CSRA Regional Commission
362g Walton Way Ext., Suite 300
Augusta, GA 30909
Phone: 985-259-5874 (cell)

From:	Michael Kimball
To:	Mike Lyons (ema@glascockcountyga.com)
Cc:	Melissa Alcantara
Bcc:	Angela Barrow (cityofedgehill@gmail.com); Billy Faulk (b.faulk@southernco.com); Brandon Davis (bdavis@gfc.state.ga.us); Connie Kitchens-Jackson (CONNIE_KITCHENS@THERMOKING.COM); Jaunice Gordy (juanice.gordy@uga.edu); Jeremy Kelley (glso@bellsouth.net); Jim Holton (jholton@glascock.k12.ga.us); Lori Boyen (lboyen@glascockcountyga.com); Mark Shelton (mshelton202@gmail.com); Michael May (chiefmay101@outlook.com); Mike Lyons (ema@glascockcountyga.com); Sara Simmons (mitchelltownof@bellsouth.net); Tammy Leonard (Tammy.Leonard@dhs.ga.gov); Timmy Landrum; Wanda Davis (wdavis@glascock.k12.ga.us)
Subject:	Glascock County Hazard Mitigation Planning Meeting #2
Date:	Wednesday, January 12, 2022 8:50:00 AM

Good morning,

Glasscock County has begun its five-year update to the FEMA approved Pre-Disaster Hazard Mitigation Plan. As part of the planning process, Glascock County is holding its second public meeting on January 19, 2022, at 6:00 pm at the Glascock County Fire/EMA building located at 676 West Main Street, Gibson, GA. Civic organizations, local businesses, and citizens of Glascock County, as well as the cities of Edge Hill, Gibson, and Mitchell are encouraged to attend. Feel free to forward this email to anyone you believe may be interested. The purpose of the hearing will be to outline the planning process and gather public input. Please contact Glascock County EMA Director Mike Lyons at 706-598-2811 with any questions.

Michael Kimball
Disaster Relief Coordinator
CSRA Regional Commission
362g Walton Way Ext., Suite 300
Augusta, GA 30909
Phone: 985-259-5874 (cell)

GLASCOCK COUNTY PDM PLANNING TEAM MEETING #2
WEDNESDAY, JANUARY 19, 2022 AT 6:00 PM

NAME	TITLE and AGENCY	EMAIL
1. WARREN PITTMAN	MAYOR PRO TEM	
2. Frank McGahee	First Responder	
3. Curt McGahee	FD	mcgaheecu@jefferson.k12.ga.us
4. Jerry Wood	FD	
5. MICHAEL MAY	FD	CHIEFMAY101@OUTLOOK.COM
6. Jeremy Kelley	GCSO	jeremy.kelley@glascockcountysheriff.ga.
7. Tony Martucci	GCSO	Tmartuccijr@Gmail.com
8. Shane Barrow	GCFD	
9. Mark Shelton	GCFD	mshelton202@gmail.com
10. Lori Boyen	Glascock BOC	lboyen@glascockcountyga.com
11. Mike Lyons	Glascock EMA	ema@glascockcountyga.com
12. Michael Neal	City of Mitchell	michael.neal@kcminsolution.com
13. LEWIS BETTER	TOWN OF MITCHELL	lewisbter@bellsouth.net

GLASCOCK COUNTY PDM PLANNING TEAM MEETING #2
WEDNESDAY, JANUARY 19, 2022 AT 6:00 PM

NAME	TITLE and AGENCY	EMAIL
27. Colin Benkoski	Fireman / Glascock County	Colinbenkoski6850@gmail.com
28. Carol Markins	Council Member / Gibson	JoannsFlowershop@gmail.com
29. Angela Barrow	Clerk / City of Edgehill Glascock Co. Fire Dept.	abarrow7757@yahoo.com
30. Robert Chalker	Fireman / Glascock Co.	willchalker45@gmail.com
31. James Chalker	Fireman / Glascock Co.	jameschalker52@gmail.com
32.		
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37.		
38.		

Carl

From:	Michael Kimball
To:	Mike Lyons (ema@glascockcountyga.com)
Bcc:	Alvin Burke (alvinburke@jenkinscountyga.gov); Blake Thompson (bthompson@wilkescountyems.com); Casey Broom (cbroom@lincolncountyga.com); Crystal Ladousier (crystal@warrencountyga.gov); David Foot (davidfoottcema@yahoo.com); Jim Anderson (janderson@jeffersoncountyga.gov); Mario Chapple (mariochapple@yahoo.com); Mie Lucas (dlucas@augustaga.gov); Mike Lyons (ema@glascockcountyga.com); Russell Riner (EMA@washingtoncountyga.gov); Shawn Granato (sgranato@columbiacountyga.gov); Stephen Sewel (Stephen.Sewell@thomson-mcduffie.net); Steve Matthews (smathews@burkecounty-ga.gov)
Subject:	Glascock County Pre-Disaster Hazard Mitigation plan
Date:	Tuesday, August 23, 2022 11:07:00 AM

Good morning,

Glascock County is holding their third meeting to update their Pre-Disaster Mitigation Plan (PDM). One of the plans requirements is to invite neighboring communities to provide input into the planning process. The Glascock County PDM Committee would like to extend an invitation to your agency to participate. This meeting will be held at the Glascock County Fire/EMA Building located at 676 West Main Street, Gibson, GA on August 31, 2022, at 6:00 pm. Please contact Glascock County EMA Director Mike Lyons at 706-598-2811 with any questions.

Michael Kimball
Economic Development Coordinator
CSRA Regional Commission
3626 Walton Way Ext., Suite 300
Augusta, GA 30909
Phone: 985-259-5874 (cell)

From:	Michael Kimball
To:	Mike Lyons (ema@glascockcountyga.com)
Bcc:	"Billy Faulk (b.faulk@southernco.com)"; "Brandon Davis (bdavis@gfc.state.ga.us)"; "Connie Kitchens-Jackson (CONNIE_KITCHENS@THERMOKING.COM)"; "Jaunice Gordy (juanice.gordy@uga.edu)"; "Jeremy Kelley - Glascock County Sheriff's Office (jeremy.kelley@glascockcountysheriff.com)"; "Jim Holton (jholton@glascock.k12.ga.us)"; "Lori Boyen (lboyen@glascockcountyga.com)"; "Mark Shelton (mshelton202@gmail.com)"; "Michael May (chiefmay101@outlook.com)"; "Mike Lyons (ema@glascockcountyga.com)"; "Sara Simmons (mitchelltownof@bellsouth.net)"; "Tammy Leonard (Tammy.Leonard@dhs.ga.gov)"; "Timmy Landrum"; "Wanda Davis (wdavis@glascock.k12.ga.us)"; Angela Barrow (cityofedgehill@gmail.com)
Subject:	Glascock County Pre-Disaster Plan
Date:	Tuesday, August 23, 2022 10:58:00 AM

Good morning,

Glascock County will hold its third pre-disaster planning meeting on Wednesday, August 31,2022 at 6:00 pm. The meeting will be held at the Glascock County Fire/EMA building located at 676 West Main Street, Gibson, GA. Upon completion of the 2023 update, the county along with the cities of Edge Hill, Gibson, and Mitchell will adopt the plan by resolution. Please ensure someone attends from each agency and jurisdiction. Remember, your time counts at match for this grant. Feel free to send this email to anyone you feel should participate in this meeting. Contact Glascock County EMA Director Mike Lyons at 706-598-2811 with any questions.

Thanks,

Michael Kimball
Economic Development Coordinator
CSRA Regional Commission
3626 Walton Way Ext., Suite 300
Augusta, GA 30909
Phone: 985-259-5874 (cell)

GLASCOCK COUNTY PDM PLANNING TEAM MEETING #1
WEDNESDAY, AUGUST 31, 2022 AT 6:00 PM

NAME	TITLE and AGENCY	EMAIL
1. Will Chalker	Volunteer Fire Fighter Glascock County	willchalker45@gmail.com
2. Jeremy Kelley	Glascock Co. Sheriff's Office	jeremy.kelley@glascockcountysheriff.
3. Angela L. Barrow	Glascock Co. Fire Dept. City of Edgehill	abarrow7757@yahoo.com
4. Tom Marfucci	Glascock county sheriff's office	tmarfucijr@gmail.com
5. Mike Lyons	Glascock County EMA	ema@glascockcounty.ga.com
6. Trey Neal	Glascock County Road	
7. Mark Shelton	Gatewood Fire Dept Glascock EMA	mshelto202@gmail.com
8.		
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