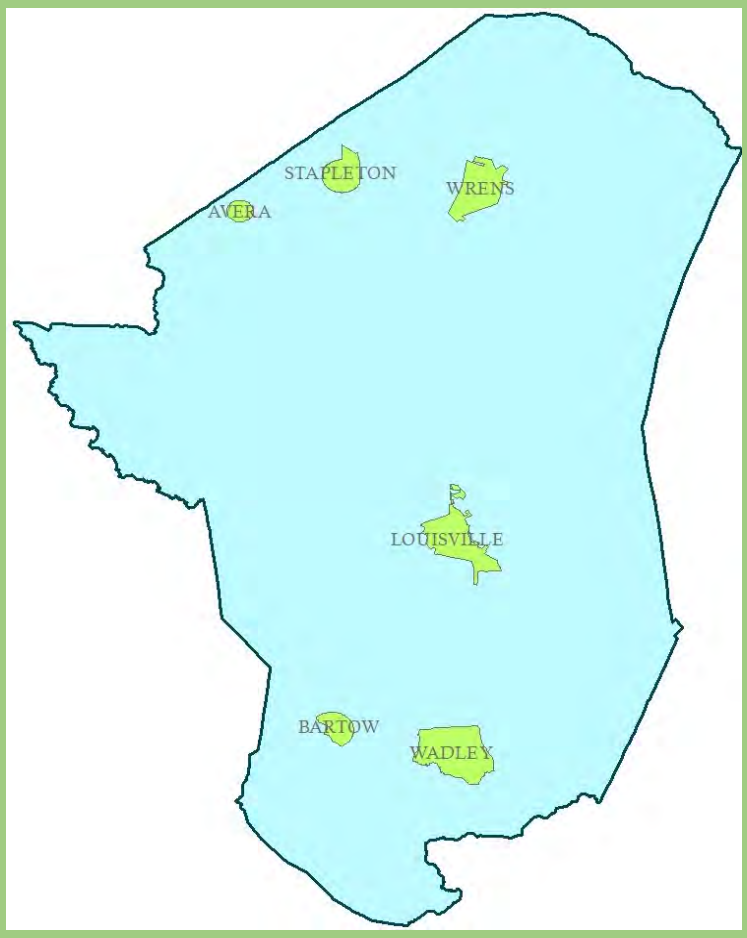
Jefferson County, Georgia
Multi-Hazard Pre-Disaster Mitigation Plan
Plan approval pending adoption: 1/6/2026
Plan Approval:



Prepared For:
Jefferson County Board of Commissioners
P.O. Box 658
Louisville, Georgia 30830
(478) 625-3332
FAX (478) 625-4007

Prepared By:
Central Savannah River Area
Regional Commission
3626 Walton Way Extension, Suite 1
Augusta, GA 30909
(706) 210-2000
FAX (706) 210-2006

CHAPTER I. INTRODUCTION TO THE PLANNING PROCESS

Table 1.1 provides a brief description of each section in this chapter 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 was collected.
III. Description of how each section of the original plan was reviewed and analyzed and whether it was revised.	There have been numerous changes to the GEMA -PDM planning template since the 2014 approval. All sections of the original plan were analyzed and revised.
IV. Organization of the plan.	The plan is organized 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).	Reviewed and updated information regarding multijurisdictional concerns.
VII. Adoption, implementation, monitoring and evaluation.	This was evaluated and remains the same. Additional text was added to clearly delineate the task of implementation and monitoring. Plan was adopted after GEMA and FEMA review and approves the update plan.
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 Jefferson County 2025 Plan Update is the review and improvement to our Multi-Hazard Pre-Disaster Mitigation Plan approved on February 11, 2020. The plan fulfills the requirements of the Federal Disaster Mitigation Act of 2000 (DMA2K). The Act is administered by the Georgia Emergency Management Agency (GEMA) and the Federal Emergency Management Agency (FEMA). The act provides federal assistance to state and local emergency management and other disaster response organizations to reduce damage from disasters. The plan has involved many community partners including elected officials, city and county personnel, fire, emergency management, law enforcement, and public works. The goal of this plan is to identify natural hazards and develop strategies to lessen the impact on our community.

The 2025 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 2025 update covers all of Jefferson County to include the cities of Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens. The plan will identify all natural disasters that could 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 2019 plan update.

The plan also contains the following information on:

- The vision of mitigation in our community.
- The profile of Jefferson 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.
- Jefferson 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 Jefferson County's 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 Jefferson County's current policies, goals and regulations that pertain to hazard mitigation.
- Documentation of the planning process.
- Updated hazard events that occurred since 2019.
- Updated critical facilities added since 2019.
- Documented current mitigation strategies implemented since 2019; and
- Examined and updated mitigation strategy goals, objectives and action steps.

The update is the product of the combined efforts of Jefferson County, and the cities of Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens. Identifying the community's risks and working collectively toward the prevention of disasters in the community is in the county's best interest, the Jefferson County Emergency Management Agency (EMA) took the lead role in the update. Under the agency's leadership, there has been an endorsement and commitment by Jefferson County, Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens.

Continued mitigation planning is imperative to lessen the impacts of disasters in Jefferson County, Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens. This plan serves as 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 that is resistant to the impact of a disaster. The objective is implementation of this plan 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 Jefferson County Board of Commissioners contracted with the Central Savannah River Area Regional Commission (RC) to assist in the update to the 2025 plan. 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.

EMA Director James Anderson assembled the Hazard Mitigation Planning Committee. The table below identifies the 2025 members.

Name	Agency/Title	Jurisdiction
Tommy Sheppard	Mayor	City of Avera
Amy Hadden	Clerk	City of Avera
James W. Miller	Police Chief	City of Louisville
James Davis	Fire Chief	City of Louisville
Jennifer Smith	Mayor	City of Louisville
Ricky Sapp	City Administrator	City of Louisville
Lisa Cranford	Mayor	City of Stapleton
Rita Hilton	City Clerk	City of Wadley
Darryl Allen	Public Works Director	City of Wadley
Keith Boulineau	Fire Chief	City of Wrens
John Maynard	Chief of Police Department	City of Wrens
Brian Usry	Public Works Director	City of Wrens
Arty Thrift	City Administrator	City of Wrens
James O. Anderson	EMA Director	Jefferson County
Jerry Coalson	County Administrator	Jefferson County
Tammy Bennett	Senior Center Director	Jefferson County
Leigh Davis	Nurse/ JC Health Dept.	Jefferson County
Gary Hutchins	Sheriff/Sheriff's Office	Jefferson County
Robert Chalker	Captain Sheriff's Office	Jefferson County
Johnny Davis	County Commissioner/BOC	Jefferson County
Adrian Snell	Building Dept. Supervisor	Jefferson County
Tim Moore	Colonel, Sheriff's Office	Jefferson County
Scott Tiner	Dir, of Maintenance Board of Education	Jefferson County
Ken Hildebrandt	Board of Education	Jefferson County
Parrish Howard	Jefferson Reporter	Jefferson County
Anna Anderson	EMA	Jefferson County
Jeff White	Mayor	Town of Bartow
Jason Jones	Police Chief	Town of Bartow

The 2025 committee was responsible for the organization, data collection and completion of the plan. It was the responsibility of the committee to include all pertinent departments within their respective governments and to request information as needed. The following

agencies/departments/organizations provided specific information and support for the original plan and provided some new information for the update:

- Jefferson County School District was responsible for providing structural replacement and content values for all schools as well as square footage and occupancy limits.
- Police Departments for the Cities of Bartow, Louisville, Stapleton, Wadley, and Wrens provided staff support and were responsible for providing structural replacement and content values for all critical facilities located in their respective cities as well as square footage and occupancy limits.
- Jefferson County Sheriff's Office provided staff support to the planning effort.
- Jefferson County Health Department identified vulnerable populations. They also provided replacement value estimates for their properties.
- Fire Departments of Jefferson County and the City of Louisville and Wrens provided staff support and assisted with identifying occupancy limits for some of the critical structures and replacement value estimates.
- City officials from the Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens provided information relative to their jurisdictions 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.
- Jefferson County Chamber of Commerce assisted in identifying major businesses.
- Jefferson County Board of Commission County Administrator provided information about Jefferson County government buildings including their respective replacement and content values and square footages.
- Jefferson County Tax Assessor's Office provided most of the aggregate values for the critical structures. The valuations had to be converted to full values since they are figured at 40 percent of actual value. This information, combined with demographic data, is compiled on GEMA Worksheet #3a in Appendix A for all jurisdictions.
- CSRA Regional Commission's Geographical Information System (GIS) Department produced several of the maps. Maps are in Appendix A and C.

Several resources were consulted to facilitate the development of the update. Data was collected from numerous sources, including the National Oceanic and Atmospheric Administration (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. The table below provides a list of existing planning documents used during the update.

Record of Review		
Existing planning mechanisms	**Reviewed (Yes/No)**	**Method of use in Hazard Mitigation Plan**
Jefferson County Joint Comprehensive Plan 2023	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	Mitigation strategies, capability assessment
Building and Zoning Codes and Ordinances	Yes	Development trends; Future growth, capability assessment, mitigation strategies
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	Mitigation strategies, risk assessment
Flood Insurance Study	Yes	Review for historical Data and Information
The Jefferson County Assets Index	Yes	Reviewed for assets data, tax information
CSRA Regional Plan 2040	Yes	Development trends; Future growth, regional concerns and data

The committee held three meetings over a 5-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 collected 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.

The table below 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 meetings, two were advertised in *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. To meet the requirement for neighboring communities to be involved in the planning process, invitations were extended by email. Invitations were extended to the following counties: Burke, Emanuel, Glascock, Johnson, McDuffie, Richmond, and Washington. It is noted that no public comments or feedback was provided by the public. Copies of correspondence, emails and advertisements are in Appendix E.

Meeting Date	Purpose of Meeting
July 23, 2024	Advertisement ran in *The Jefferson Reporter* for public meeting on July 18, 2024.
July 23, 2024	Kickoff meeting to the public. April Young, RC provided a presentation to the attendees.
August 23, 2024	This meeting was to ensure all data collected to date was correct for critical facilities and to reviewed mitigation strategies and action steps
September 12, 2024	This meeting was a continuation of the August 23, 2024 meeting. Ensured all data collected was correct and reviewed mitigation strategies and action steps.
September 25, 2024	This meeting was at the Jefferson County Senior Center to ensure vulnerable populations were included in this review process.
October 16, 2024	Final overview of plan to ensure all jurisdictional information was correct and review final mitigation strategies.
TBD	After GEMA submitted the plan to FEMA and FEMA Approved Pending Adoption (APA), the public was invited to review the final plan prior to adoption xxx time frame. The 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 for meeting 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 2025 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 Jefferson County, Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens.

SECTION IV. ORGANIZATION OF THE PLAN

The estimated time to complete the plan update was approximately 6 months. Plan completion is 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 are 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 Jefferson 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 to ensure the effectiveness of this plan. These goals and objectives established the paradigm for the planning process and proved very successful by the many accomplishments of the 2025 plan update. These goals and objectives are as follows:

- To actively involve and gain support from Avera, Bartow, Louisville, Stapleton, Wadley, Wrens and unincorporated Jefferson County for the reduction of disasters in our community.
- Prioritize identified mitigation projects.
- Seek and implement any grant funding for the reduction of disasters in Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens.
- Monitor, evaluate, and update the progress of the plan as needed.
- To form partnerships among local, state, and federal agencies to make Jefferson County more resistant to the effects of disasters.
- Strengthening 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 Jefferson County, Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens.

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 Jefferson County, Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens 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 2025 committee identified six major hazards that have the potential to affect Jefferson County: flooding, dam failure, drought, wildfire, severe weather (tornados, tropical storms, thunderstorms and lightning) and winter storms. The update committee reviewed current hazard data and added

hail to the already identified hazard. Appendix A provides an updated comprehensive table for each hazard event.

Profiling Hazard Events: The committee analyzed the causes and characteristics of each hazard, and its effect on Jefferson 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 A.

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 those interested had been given ample opportunity 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 Jefferson 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. A copy of the STAPLEE is in Appendix D.

SECTION VI. MULTI-JURISDICTIONAL SPECIAL CONSIDERATIONS

Jefferson County, and the cities of Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens provided active participants in the planning process and have identified mitigation goals, objectives and action items specific to their jurisdiction. The governing bodies for the county and all municipalities have formally adopted the Jefferson County Multi-Hazard Pre-Disaster Mitigation Plan.

Representatives from all seven jurisdictions 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. 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's goals are to work in partnership with municipal partners toward a common mitigation strategy that significantly reduces vulnerability of natural disasters. Most natural threats overlap jurisdictions and are all susceptible to their effects. Jefferson County, and the cities of Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens share the same passion and desire for protecting and

reducing risk through 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 EVALUATION

Adoption Date

Jurisdiction	Adoption Date
Jefferson County	
City of Avera	
City of Bartow	
City of Louisville	
City of Stapleton	
City of Wadley	
City of Wrens	

The plan was submitted to GEMA for review and then to FEMA for approval. Their respective governing bodies have formally adopted the 2025 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 reduces the risk of life, injuries, and hardship from the destruction of natural disasters.
- Create awareness among 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 principles.

- Develop a strategic mitigation plan for Jefferson 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 Jefferson 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.

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

Individual citizens must be made aware of the hazards they face. Additionally, they must be educated in how to protect themselves from natural hazards. They must be shown mitigation is an important part of reducing loss of life and property in their community. Their support is critical to the success of any mitigation effort. The Jefferson 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 that will ensure that 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, Jefferson County will develop steps to ensure public participation throughout the plan maintenance process. Finally, this section describes how Jefferson County will incorporate the mitigation strategies identified in this plan into other relevant planning documents such as the Jefferson County Joint Comprehensive Plan, Short-Term Work program (STWP) and Local Emergency Operations Plan (LEOP).

SECTION VIII. COMMUNITY DATA

Political Boundaries - Jefferson County

Jefferson *County*

GA Department of Community Affairs Region 7

Georgia

History: Jefferson County was created on February 20, 1796 and named for Thomas Jefferson, the third president of the United States. Jefferson County was originally part of Burke and Warren counties. Louisville, the county seat, was named in honor of King Louis XVI of France, because of the support given by France to the Colonials in the Revolution. Louisville was Georgia's third state capital, but its first "permanent" one. Louisville was the site of the Constitutional Convention of 1798 in which the state's pre-Civil War constitution was adopted. Georgia's Great Seal, which is still in use today, was adopted at the same time.

Government: Jefferson County operates under a commission-based system of government in which five commissioners are elected to four-year terms. Other county officials are the County Attorney, Clerk of Superior Court, Code Enforcement Officer, Public Works, Roads and Bridges, Probate Judge, Coroner, Magistrate Judge, Sheriff, and Tax Commissioner. Jefferson County contains six municipalities, all of which operate under a mayoral system of government with additional officials providing services to residents.

Jefferson County Georgia: Municipal Governments	AVERA	BARTOW	LOUISVILLE	STAPLETON	WADLEY	WRENS
Mayor	X	X	X	X	X	X
# Council Members	4	5	5	5	5	5
City Clerk	X		X	X	X	X
City Coordinator/Administrator		X	X		X	X
City Attorney	X	X	X	X	X	X
Police Chief		X	X	X	X	X
Fire Chief	X	X	X	X	X	X
City Engineer						
Public Works Director	X		X			X
Gas Superintendent			X			X
Water Superintendent	X	X	X	X		X
Wastewater Superintendent		X	X			X
Sanitation Superintendent		X	X	X		
Building Inspector					X	X
Code Enforcement			X		X	X
Municipal Court Judge		X	X	X	X	X
Municipal Court Clerk		X	X	X	X	X

Source: Georgia Municipal Association

Demographics: In 2021, Jefferson County has a population of 15,708 people. The two tables below show current and historical comparisons of all jurisdictions.

Category	Jefferson County	Avera	Bartow	Louisville	Stapleton	Wadley	Wrens
Population	15,708	262	219	2,545	347	2,040	2,295
Number of Households	5,826	97	140	977	146	635	827
Average Household Size	2.59	2.56	1.56	2.57	2.52	3.06	2.49
Households with one or more people under 18	32%	34.0%	5.7%	35.4%	26.0%	39.4%	31.9%

Households with one or more people 60 years and over	45.3%	35.1%	59.3%	42.9%	47.3%	43.0%	51.0%
Mobile homes	30.4%	45.3%	32.8%	9.4%	16.7%	25.8%	8.8%
Median Age	40.7	40.6	59.5	33.0	49.1	36.4	42.5
Median HH Income	$42,238	$51,250	$46,667	$31,923	$52,857	$32,396	$32,734

Source: US Census Bureau

Economy: In 2024, the average weekly wage for employment sectors was $930, compared to the CSRA Regional Commission area average of $1085. July 2024 unemployment rate was 5.4 percent. In 2024, the labor force in Jefferson County totaled 6,771. Of the total work force, 42.9 percent were employed in the service providing sector, followed by 35.3 percent in the goods producing sector and 21.5 percent in the government sector the remaining 0.3 percent was unclassified.

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 2024 in Jefferson County.

Annual Industry Distribution of Jobs and Average Wage in 2013 (NAICS)	Establishments	Jobs	Average Wage Per Job
Total Covered Employment and Wages	**402**	**4,973**	**$930**
Total Private Sector	**366**	**3,903**	**$954**
Total Government	**36**	**1,068**	**$842**
Agriculture, forestry, fishing, hunting	32	219	$848
Mining, Quarrying, Oil and Gas Extraction	5	225	$1,341
Construction	39	277	$933
Manufacturing	40	1,033	$1,159
Wholesale trade	11	160	$699
Retail trade	57	620	$448
Transportation, warehousing	12	115	$1,191
Utilities	4	*	*
Information	3	15	$665
Finance and Insurance	16	102	$1,490
Real Estate, rental, leasing	12	29	$927
Professional, Scientific, Technical services	15	64	$1,298
Mgmt. of companies, enterprises	3	*	*

Administrative and support and waste management and remediation services	20	245	$680
Educational services	2	*	*
Health care, social assistance	17	181	$768
Arts, entertainment, recreation	2	*	*
Accommodation and food services	27	233	$458
Other services, except public administration	21	81	$543
Unclassified-Industry not assigned	29	14	$1,032

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

Climate: According to the National Weather Service, Central Georgia where Jefferson County is located experiences all four seasons. Jefferson County averages 45.6 inches of rain per year. The US average is 37. The number of days with any measurable precipitation is 93. On average, there are 218 sunny days per year in the county. The average July high is around 92 degrees, and the average January low is around 36 degrees.

Physical Features: Jefferson County encompasses an area of roughly 530 square miles or 339,200 acres. The County is located at the cusp of two geological regions, the Southern Piedmont and the Georgia Coastal Plain. This gives the county a mixture of geological features and provides a variety of landscapes and available resources. The fall line, which runs through Jefferson County, is a geological boundary following the Appalachian Mountain range from Alabama to New York. In Georgia and South Carolina, the fall line separates the Southern Piedmont from the Southern Coastal Plain. The location has implications for how drinking water is retrieved in the county as the Floridian aquifer closely follows the boundaries of the Fall Line.

Jefferson County and its six incorporated cities are primarily within the Dothan-Fuquay-Tifton and Orangeburg-Faceville-Lucy Soil associations. These two make up 74% of the county. This soil is strong and well drained with slopes ranging from 0 to 15%. Excess surface water drains into a system of intermittent and perennial streams. There are few areas of open water. The soil is used mainly for field crops, hay, or pasture, but many areas are wooded. Roads, utility lines, fences, farm homes and associated structures are common. The degree of visual diversity is moderate. This soil is good for most urban and agricultural uses. Soil map is in appendix A.

Transportation

Vehicle Traffic: U.S. Highways 1, 221, 319, and Georgia Highways 102 and 80 all intersect a portion of the county and are the primary arterials in Jefferson County. Interstate Highway 16 passes 32 miles south of the county line, while Interstate Highway 20 passes just 22 miles away via Georgia Highway 17. Roads classified on the map, located in Appendix A, are considered major county thoroughfares and serve as main transportation routes within the county and to surrounding areas. All other county or municipal roads not classified on the thoroughfare map are considered locally served. Most of the roadway network is rural, with only a handful of urban roads in Louisville, Wadley and Wrens.

Mileage by Route and Road System Report 445 for 2020			
	Total Road Mileage	Lane Mileage	Vehicle Miles Traveled (VMT)
State Route	186.393	440	523,986
County Road	544.972	1,090	160,852
City Street	95.585	191	31,501
Total	**826.950**	**1,721**	**716,340**

Source: Georgia Department of Transportation, Office of Transportation Data, "445 Series Reports 2017."

Public Transportation: In addition to coordinated transportation through the Georgia Department of Human Resources, Jefferson County Transit (WCT) provides public transportation for county residents. Services include transporting residents to and from destinations for shopping, work, school, personal appointments, and recreational opportunities within and outside the county. The county and state fleets include a total of eight vans – two wheelchair accessible and six 12-15-passenger vans. Approximately 2,771 monthly trips are provided to county residents.

Rail Traffic: Rail companies provide crucial cargo transport for industries in Jefferson County. Many items and materials are too bulky or heavy to be shipped by truck and are moved by rail. Norfolk Southern has two lines that pass-through Wadley and Wrens en route to Warrenton and Atlanta. In addition, the Central Georgia Railroad has a short line connecting Wadley with Louisville.

Air Service: Airports located in Louisville and Wrens provide small craft aviation services. The airport in Wrens maintains a hangar space of 6,396 sf. and 50% paved taxiway. Wrens has 3 open hangers, 6 box hangers that hold individual planes, and 2 corporate hangers that hold 3 planes. Wrens also has on site FBO Watson Arrow AMP repair and maintenance. The airport in Louisville has a 5,000-foot-long runway and offers hangars and tie-downs. There is 15,500 sf. of hangar space available as well as one T-hanger that will accommodate four planes. There are two parallel paved taxiways. The nearest commercial air service is in Augusta, 35 miles away. Atlanta-Hartsfield International Airport, located in Atlanta approximately 150 miles from Louisville, provides major commercial airline service.

Utilities

Electricity: Residential electrical service is provided by three companies: Georgia Power, Jefferson Energy Cooperative, and Washington Electric Membership Corp. A part of Georgia's modern integrated electrical transmission system, Jefferson County has excellent ability to supply industrial demands.

Natural gas: Natural Gas Services is provided by the City of Louisville and the City of Wrens. The service is available to residents of Louisville and Wrens and some residential customers in the unincorporated area of the county.

Sewer: Public sewer service is provided in Bartow, Louisville, Wadley, and Wrens. A small section of the County is served by the City of Louisville. The remaining unincorporated areas of the County, Avera, and Stapleton are not served with public sanitary sewer service.

Municipality	Sewer and Wastewater Systems
Avera	Septic tanks only.
Bartow	Wastewater Treatment Plant
Louisville	Two water pollution control plants, 2 oxidation ponds 2MGD Treatment plant.
Stapleton	Septic tanks only.
Wadley	One wastewater treatment plant, 1 oxidation pond
Wrens	Wastewater Treatment Plant

Water: Public water supply is provided by the Cities of Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens to residents within their incorporated boundaries. Some unincorporated areas of the County are served by Louisville or Wrens the remainder is served by private wells.

Municipality	Water Distribution System
Avera	Complete water distribution and treatment system: Two wells, distribution lines, one elevated water storage tanks.
Bartow	Complete water distribution and treatment system: Two wells, distribution lines, one water storage tank.
Louisville	Complete water distribution and treatment system: Three water storage tanks, distribution lines, three elevated water storage tanks. Second water treatment plan with elevated tank.
Stapleton	Complete water distribution and treatment system: Two water storage tanks and distribution lines.
Wadley	Complete water distribution and treatment system: Two wells, two water storage tanks, distribution lines.
Wrens	Complete water distribution and treatment system: One main well and two back up wells. Four elevated storage tanks, distribution lines. Proposed project to build new well.

Solid Waste: Jefferson County operates a landfill along U.S.1 under permit # 081-011D (MSWL). Most of the solid waste comes from residential use or household garbage, including paper products, plastics, glass, aluminum, and ferrous metals. A limited amount of commercial and industrial waste consists of corrugated paperboard and wood waste. Green box collection is used in unincorporated areas for solid waste disposal. Currently there are green boxes at twenty-five (25) separate sites in the county. The county provides solid waste services for Avera. Louisville and Bartow haul their waste to the county landfill while the rest of the municipalities contract private haulers.

Communications: Jefferson County's communication services are provided by three companies: Comcast, AT&T and Pineland Telephone. Local print media consists of *The News and Farmer and Wadley Herald/The Jefferson Reporter* (which serves as the legal organ of the county) and *The Augusta Chronicle*. Jefferson County is served by 2 local AM radio stations and 2 local FM radio stations. There are seven television stations in metro Augusta that broadcast in Jefferson County. They are WJBF, WAGT, WRDW, WAAU, WBPI, WCES, and WFXG.

Fire and Emergency Services

Response: All residents of Jefferson County have access to 911 service. The 911 service connects residents to police, fire and ambulance service. The dispatch office is in Louisville. The 911 service has 12 employees on staff utilizing 3 per 12-hour period (6a-6p and 6p-6a) with (2) shifts (A&B). The Jefferson County 911 service has mutual aid agreements with neighboring counties and therefore can respond to and assist in calls outside their jurisdiction.

Emergency Medical Services: Jefferson County gets its Emergency Medical Services (EMS) through a private corporation called Gold Cross. Services provided include emergency and nonemergency ambulance transportation. The Gold Cross has its main station at the Jefferson County Hospital. In addition, there is a substation located in Wrens. The Hospital Station and the Wrens substation operate on a 24-hour basis.

The Gold Cross service maintains three ambulances in the county but only operates two at any time. The third is kept as a backup. The ambulances are all ALS (Advanced Life Support) units.

Fire and Rescue: Jefferson County has seven fire departments throughout the county that provide service to both the incorporated and unincorporated areas. There is also a detachment of the Georgia Forestry Commission that combats woodland, wildlife and agricultural fires. Jefferson County itself has one station with 15 volunteer firefighters and a total of three bays. The county insures four fire trucks. The newest truck is a 2009 model.

Municipality	Fire Department
Avera	Served by an all-volunteer fire department, with 10 volunteer firefighters. The department owns vehicles; two pumpers and a brush truck. The ISO rating for the district is a 6 in the county and 4 within the city limits.
Bartow	Served by an all-volunteer fire department, with 19 volunteer firefighters. The department owns three pumpers, one 3,000-gal tanker, one 1,500-gal fire knocker and one rescue truck. The ISO rating for the district is a 7.
Louisville	Served by one fire department staffed with four full-time paid firefighters, and 28 volunteer firefighters. The department owns four vehicles: three pumpers and one fire knocker. The ISO rating for the district is a 4.
Stapleton	Served by an all-volunteer fire department, with 15 volunteer firefighters. The department owns four vehicles: two pumpers, a fire knocker and a service truck. The ISO rating for the district is a 7.
Wadley	Served by an all-volunteer fire department, with 15 volunteer firefighters. The department owns four vehicles: four pumpers. The ISO rating for the district is a 5.
Wrens	Served by one fire department with five full-time firefighters and 25 volunteer firefighters. The fire department insures two pumper trucks with 1250 and 1500 gpm; a rescue/pumper with 2000 gpm, one 250-gal forestry truck, and one 3000-gallon tanker. The ISO rating for the department is 3.

Law Enforcement: Jefferson County Sheriff's Office employs the Sheriff, 14 deputies, five jailers, three investigators and two clerical personnel. The Office has a total of 30 vehicles, including 20 police cars, one pickup truck and one van. The County is also served by regional offices of the Georgia Bureau of Investigation and The Georgia State Patrol.

Municipality	Law Enforcement
Avera	Served by Jefferson County Sheriff's Office
Bartow	Served by Bartow Police Department with the Police Chief and one part-time officer.
Louisville	Served by Louisville Police Department with the Police Chief and seven full-time officers.
Stapleton	Served by Stapleton Police Department with the Police Chief and two part-time officers.
Wadley	Served by Wadley Police Department with the Police Chief, one investigator, and five full-time officers.
Wrens	Served by Wrens Police Department with the Police Chief, seven full-time and three part-time officers.

The Jefferson County Jail is currently the only place used to house inmates at this time. All inmates are brought there instead of being incarcerated in the individual municipality. The Jefferson County Jail has 120 beds and eight holding cells.

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

The committee identified all-natural hazards that could potentially affect Jefferson County and all incorporated jurisdictions 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. Task B then narrowed the list to only hazards most likely to impact the county by reviewing hazard websites to determine if Jefferson County is in a high-risk area.

As a result of the planning process, the committee determined that nine natural hazards pose a direct, measurable threat: flooding, dam failure, drought, wildfire, tornados, tropical storms, and severe weather (to include thunderstorm winds, lightning and hail), winter storms and earthquakes. The committee profiled each of these hazards using FEMA worksheet #2 and #3a, which included obtaining a base map and then recording hazard event profile information. Of the six hazards mentioned, the entire County is exposed to four: severe weather, winter storms, wildfire and drought. Flooding is isolated to select areas within the floodplain, while dam failure is isolated to areas downstream of the event. Each of these potential hazards is addressed with relevant supporting data.

Chapter II. Section		Updates to Section
I.	Natural Hazard Flood	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data. Added information from Hazus-MH analyses.
II.	Natural Hazard Dam Failure	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
III.	Natural Hazard Drought	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
IV.	Natural Hazard Wildfire	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
V.	Natural Hazard Tornados	Removed from Severe Weather Category. Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
VI.	Natural Hazard Tropical Storms	Removed from Severe Weather Category. Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
VII.	Natural Hazard Severe Weather	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data. Added information from Hazus-MH analyses.
VIII.	Natural Hazard Winter Storms	Updated events, added critical facilities to GMIS, updated tax information. Recalculated hazard frequency data.
IX.	Earthquake	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.

Jefferson County, Bartow, Louisville, Stapleton, Wadley and Wrens will continue to comply with NFIP requirements and intend to remain in compliance by enforcing flood plain ordinances that prohibit or severely limit development in floodplains. The following table provides information about each jurisdiction's participation level. Avera has no identified flood plains. The following table provides information about each jurisdiction's participation level.

Community Name	Init FHBM Identified	Init. FIRM Identified	Curr. Eff. Map Date	Reg-Emer Date	Sanction Date
Jefferson County		12/17/10	12/17/10(M)	12/17/10	
Avera		N/A	N/A	N/A	
Bartow	08/22/75	01/01/92	12/17/10(M)	01/01/92	
Louisville	08/15/75	01/01/92	12/17/10(M)	01/01/92	
Stapleton	04/04/75	08/19/96	12/17/10(M)	08/19/86	
Wadley	08/22/75	08/19/86	12/17/10(M)	08/19/86	
Wrens	05/10/74	06/17/86	12/17/10(M)	06/17/86	

Source: FEMA Community Status Book

B. Hazard Profile: Severe flooding within Jefferson County is a relatively infrequent event. The county has 54 streams/rivers, 39 reservoirs and three lakes which makes the potential for flooding significant. The committee examined historical data from the USGS, NCEI, SHELDUS™, past newspaper articles and conducted interviews during its research on the effects of past flooding events.

In the last 89 years there have been eight reported flooding events, where seven occurred countywide and one in Bartow. There has been a total of approximately $2.1 million in property and crop damage with three fatalities reported. The rainfall resulted in flash flooding which caused downed trees and power lines, apartments and schools to flood and washed out several roads. Limited data is available for the incorporated jurisdictions. The most complete data applies to the county. The table below is a result of information gathered from interviews, newspaper articles, the USGS, the NCEI and SHELDUS databases.

Details	Begin Date	End Date	Type	PrD	CrD
A result of a hurricane that came ashore at Pensacola Florida	9/30/1929	10/3/1929	Flood	0.00k	0.00
Flooding There was a 3-day rainfall of 19.89 inches in Louisville	10/11/1990	10/12/1990	Flooding	2000.00k	0.00
Flood	10/13/1990	10/15/1990	Flood	50.00k	0.00
Flash Flood	3/1/1991	3/1/1991	Flash Flood	5.00k	0.00
Tropical Storm Tammy caused heavy winds/minor flooding	10/5/1995		Flooding	0.00k	0.00
As a result of Hurricane Dennis widespread flooding	7/10/2005		Flooding	0.00k	0.00
Flood	5/6/2009	5/6/2009	Flooding	1.00k	0.000
The Jefferson County EOC reported washed out roads near Avera. Almost two inches of rainfall in a 3-hour period on already wet soils quickly overwhelmed the drainage systems.	7/13/2013		Flooding	0.00k	0.00
Tropical storm Salley produced heavy rainfall and damaging winds, 2 to 8 inches of rainfall. Floodwater from a nearby creek displaced 6 families from an apartment building. Road washed out near the intersection of Clarks Mill road and Highway 102/88.	9/17/2020	9/17/2020	Flash Flood	40.00K	0.00

Source: NCEI and SHELDUS

There have been two major flood events recorded: one in 1929 and one in October 1990. Torrential rain occurred in east-central Georgia on October 10-12, 1990. The largest 24-hour rainfall amount recorded was 16.42 inches at Louisville. Severe flooding caused by the intense rain occurred in several tributaries to the Ogeechee, Ohoopee, and Savannah Rivers. There was a 3-day rainfall of 19.89 inches in Louisville. Based on interviews with city officials, the flood depth for this event exceeded 20 feet. Information from the newspaper according to EMA Director McGahee of the 800 miles of roads in the county at least 400-600 miles are affected. Roads were cut off in 58 places in the county.

Maximum discharges of streams in east-central Georgia had recurrence intervals ranging from 2-years to more than 100 years. Record-high stages and discharges occurred at 14 sites in east-central Georgia where stage and discharge data were collected.

The most severe flooding occurred on Big Creek near Louisville, Brushy Creek near Wrens and Buckhead Creek near Waynesboro where the maximum discharges were much greater than the respective 100-year discharges. Known dam failures upstream of the gaged sites on Big Creek and Brushy Creek contributed to the severity of the flooding. Also, there were at least six other streams within about a 50-mile radius of Augusta that experienced maximum discharges equal to or greater than those having a 100-year recurrence interval. All sites where discharge equaled or exceeded the 100-year discharge within this 50-mile radius had drainage areas of less than 100 square miles, except sites on the Ogeechee River. The Ogeechee River experienced maximum discharges having recurrence intervals ranging from 10 to more than 100 years. The maximum discharge of 27,000 cubic feet per second for the Ogeechee River near Louisville was the largest since 1929. *(Summary of Floods in the United States during 1990 and 1991 USGS)*

While severe flooding within the county is a relatively infrequent event, there is a potential for flooding. Flooding usually occurs from fall to mid-spring. Flash flooding is the most prominent flooding event that takes place as riverbanks overflow due to rainfall. To date there has been more than $2 million dollars in reported damage and three fatalities. There are no NFIP mitigated properties, and no properties have encountered repetitive flooding. The GMIS flood hazard map assigns the following flood zone ratings for each jurisdiction:

- Bartow, Louisville, Stapleton, Wadley, Wrens and parts of Jefferson County have a flood zone rating of three where floodplains are known.
- Avera, Bartow, Louisville, Stapleton. Wadley, Wrens and unincorporated areas of the County have a flood zone rating flood zone rating of zero for areas outside of flood zones.

The magnitude of a major flood event could have approximately 75% of the county experiencing some damage from flooding. The FEMA Flood Zone maps shows the following conditions for:

- the unincorporated areas of the County have flood prone areas along waterways and the rest of the unincorporated areas are outside of known flood hazard areas;
- Avera has no identified flood prone areas;
- Bartow's flood prone areas run along the entire western boundary;
- Louisville's flood prone areas flood prone areas run along the western boundary;
- Stapleton's flood prone areas trickle throughout the city;
- Wadley's flood prone areas run along the entire southern, eastern and western borders of the city with a small area at the upper northern part of the city; and
- Wrens' flood prone areas run across the lower southern portion of the city, a small area at the northern top of the city and a section on the eastern portion that run into the middle of the city.

In addition to the risks from river and stream flooding, we anticipate that floodwater will generally remain less than one foot deep during heavy rainfall events in Avera, Bartow, Louisville, Stapleton, Wadley, Wrens, and unincorporated Jefferson County. This projection indicates a lower risk of substantial flooding in these areas, though localized flooding can still happen.

While data was collected looking at 95 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 10% for all of Jefferson County to include the jurisdictions of Avera, Bartow, Louisville, Stapleton, Wadley, Wrens, and unincorporated area of Jefferson County. *(See Appendix A, Section I and Appendix D).*

C. Assets Exposed to Hazard and Estimates of Potential Loss: For determination of assets exposed to risk this plan used maps created from FEMA data and available parcel data. Based on FIRM, tax digests, parcel maps and FEMA Worksheet #3a for inventory of assets, the following assets are at risk during a flood event:

- Avera has no structures/properties at risk;
- Bartow has five structures/properties valued at approximately $86,770 with an estimated population of eight;
- Louisville has 9 structures/properties valued at approximately $978,136 with an estimated population of nine;
- Stapleton has 16 structures/properties valued at approximately $176,486 with a population of 31;
- Wadley has 30 structures/properties valued at approximately $2.2 million with a population of 30;
- Wrens has 46 structures/properties valued at approximately $2.4 million with a population of 205; and
- Unincorporated Jefferson County has 102 structures/properties valued at approximately $5.5 million with an estimated population of 75.

All 208 structures/properties have been identified by federal flood plain maps and/or parcel maps. Not all structures that have been identified will experience damage from floods. The extent of each flood varies according to the amount of rainfall in each area. If a 100 percent loss of the 208 structures/properties located within flood zones would result in approximately $11.4 million in, a 75% loss would represent approximately $8.6 million, a 50% loss would represent approximately $5.7 million, and a 25% loss would represent approximately $2.85 million.

GMIS has two critical facilities with a hazard score of three: The Wrens Wastewater Treatment Plant and the West Walker Street Lift Station with a replacement value of slightly more than $3.5 million. Of the 130 remaining critical facilities, 39 have a hazard score of one with a replacement value of more than $111 million and 90 have a hazard score of zero with a replacement value slightly less than $275 million. The table below shows the breakdown of critical facilities by jurisdiction, flood hazard score, replacement value, content value, and daily occupancy.

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Day	Night
Jefferson County	1	16	$102,814,730	$6,579,800	1,589	504
Jefferson County	0	25	$215,985,363	$5,493,300	2,695	160

Avera	1	3	$737,500	$400,000	1	0
Bartow	1	1	$60,500	.00	0	0
Bartow	0	15	$3,811,977	$402,000	6	3
Louisville	1	6	$2,656,165	.00	0	0
Louisville	0	14	$35,286,225	$1,700,000	271	204
Stapleton	0	4	$2,584,292	$774,000	2	0
Wadley	0	17	$8,300,653	$2,488,200	146	97
Wrens	3	2	$3,550,000	$125,000	0	0
Wrens	1	13	$5,287,500	$27,024	0	0
Wrens	0	15	$9,137,357	$1,024,200	50	0
TOTAL		**131**	**$390,212,262**	**$19,013,524**	**4,760**	**968**

The GMIS has no repetitive flooding NFIP property and no NFIP mitigated properties or properties that have encountered repetitive flooding where there was loss. There is no estimate for future structures since future development will be limited and regulated in areas where floodplains exist. *(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 Jefferson 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's flood risk assessment analyzed at risk structures in the SFHA. The results of the Riverine 1% Flood Scenario revealed that buildings 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:

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
Bartow					
Residential	131	2	$15,746,501	$54,999	0.35%
Louisville					
Residential	928	4	$119,542,717	$111,401	0.09%
Stapleton					
Residential	206	1	$23,661,810	$50,043	0.21%
Commercial	15	1	$1,671,942	$18,283	1.09%
Wadley					
Residential	856	8	$89,204,716	$203,482	0.23%
Wrens					

Industrial	50	1	$24,594,320	$125,797	0.51%
Commercial	170	1	$42,835,976	$9,514	0.02%
Residential	859	19	$110,432,155	$438,933	0.40%
Unincorporated					
Residential	4,553	56	$426,350,839	$1,444,609	0.34%
Industrial	107	2	$61,163,807	$57,905	0.09%
Commercial	136	4	$52,527,364	$41,634	0.08%
		County Total			
	8,011	**99**	**$967,732,148**	**$2,556,555**	

- **Essential Facility Losses: The** analysis identified no essential facilities being subject to damage.
- **Flood Shelter Requirements:** The scenario estimates 255 households are subject to displacement. Displaced households represent 764 individuals, of which 207 may require short-term publicly provided shelter.
- **Flood Debris:** Hazus-MH estimates that an approximate total of 7,446 tons of debris might be generated by the flood. The model breaks debris into three general categories:
    - Finishes (dry wall, insulation, etc.) – 2,233 tons generated;
    - Structural (wood, brick, etc.) – 2,371 tons generated; and
    - Foundations (concrete slab, concrete block, rebar, etc.) – 2,481 tons generated.

It is noted that the difference between the FEMA Hazus-MH results and the FEMA worksheet #3a is because Hazus-MH is only looking at buildings. The FEMA flood maps, and parcel maps include all parcels whether a building is on it or not. These communities are rural, and agriculture is an important industry. Flooding has the potential to devastate crops. All parcels are included in our analysis, just not structures.

D. Land Use and Development Trends: The Jefferson County Joint Comprehensive Plan 2023-2028 presents future development scenarios for Jefferson County and its municipalities. The county has experienced very little growth over the past decade, and future forecasts project relatively slow growth patterns. Despite the slow growth forecasts the county intends to work closely with the cities to preemptively manage future growth. The main areas of the county considered adequate for growth are those areas adjacent to Louisville, Wrens, and Wadley. The majority of planned commercial, industrial and residential expansion is appropriate for these areas because of their proximity to the cities and the community facilities and services that they provide, as well as their access to major thoroughfares.

Jefferson County's rural character is illustrated by its abundance of natural resources. The lack of development pressures in the county has contributed to the continued presence of these resources and projected development needs can be well managed without negatively impacting any environmentally sensitive area.

Similarly, the county has an abundance of cultural resources. These are truly fragile resources that must be treated in the same fashion as natural features because of the local importance that they

hold. Future development needs to incorporate the preservation of locally significant historic resources as identified in that element of this plan.

Jefferson County's relative isolation from major urban markets decreases outside influences on local development patterns. Through the zoning ordinance, the county will limit and regulate development in known flood prone areas. (*Current and Future Land Maps and Tables for each jurisdiction can be found in Appendix B)*

E. Multi-Jurisdictional Concerns: Jefferson County, Bartow, Louisville, Stapleton, Wadley and Wrens will continue to comply with NFIP requirements and intend to remain in compliance by enforcing flood plain ordinances that prohibit or severely limit development in floodplains. These ordinances are enforced by the County Code Enforcement Officer and Building Permit Office for Jefferson County. Avera has no identified floodplains. The water superintendent enforces flood plain ordinances in Bartow and Stapleton. Louisville, Wadley, and Wrens building inspectors enforce these ordinances.

These entities review any permit applications or zoning complaints for their respective jurisdictions. Permits are not approved until signed off as compliant with all building codes and NFIP requirements. As the agencies that implement the addressed commitments and requirements of the NFIP, they also administer and oversee the process of substantial improvement (SI)/substantial damage (SD) regulations post disaster. Assessment of damages after a disaster helps in community resiliency and future mitigation strategies. Implementing existing guidelines and local regulations such as building codes, zoning ordinances, and disaster management plans continue to help these communities recover from natural disasters. These SI/SD regulations are administered by the following:

• Performing damage assessments after each hazard event; informing property owners of how to apply for permits for repairs and determining if the damage that has occurred qualifies as substantial damage.

• Reviewing permit applications for buildings located within the special flood hazard area to determine if the work being requested constitutes SI or SD repairs, and ensuring all requirements are addressed.

• Reviewing cost estimates of the proposed work to ensure they are reasonable using current market value of the structure and its characteristics, while excluding land value. Using the market value to determine if the proposed improvements meet SI requirements or using market value prior to the damage to determine if repairs meet SD requirements.

• Conduct field inspections during construction to ensure it complies with issued permits and work with owners to correct any violations found.

• Retain all FIRMs and maintain all SFHA permits. Accessible by the general public.

• Coordinate with property owners and insurance adjusters on all NFIP flood insurance claims and Increased Cost of Compliance (ICC) coverage.

Assessment of substantial damage after a disaster helps in resilience and mitigation strategies. Implementing existing guidelines and local regulations such as building codes, zoning ordinances, and disaster management plans have helped recover from natural disasters' aftermath. Documentation and Reporting: Prepare detailed documentation of the damage assessment, cost estimation, and calculations. This documentation will be essential for official determinations, insurance claims, or assistance applications.

Since flooding has the potential to affect all of Jefferson County, any mitigation steps taken related to flooding should be undertaken on a countywide basis and include all incorporated jurisdictions.

F. Hazard Summary: While severe flooding within Jefferson County is a relatively infrequent event. The county has 54 streams/rivers, 39 reservoirs and three lakes which makes the potential for flooding significant. There have been eight flooding events recorded in the last 89 years. These events resulted in school closings, roads washing out and $2 million in property damage. The flood of 1990 also caused a dam failure. The Jefferson County Hazard Frequency table calculates a 9.47% chance of an annual flooding event. Hazard frequency tables can be found in Appendix D for all jurisdictions. Severe flooding, although relatively rare in occurrence, has the potential to inflict significant damage in Jefferson County. 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 208 known structures/properties valued at approximately $11.4 million and a population of 358 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.

G. Climate Change: Per the Fourth National Climate Assessment, the frequency and intensity of heavy precipitation events is expected to increase across the country. More specifically, it is “very likely” (90-100% probability) that most areas of the United States will exhibit an increase of at least 5% in the maximum 5-day precipitation by late 21st century. Additionally, increases in precipitation totals are expected in the Southeast and Jefferson County. The mean change in the annual number of days with rainfall over 1 inch for the Southeastern United States is 0.5 to 1.5 days. Therefore, with more rainfall falling in more intense incidents, the region may experience more frequent flash flooding. Increased flooding may also result from more intense tropical cyclone. Researchers have noted the occurrence of more intense storms bringing greater rainfall totals, a trend that is expected to continue as ocean and air temperatures rise.

SECTION II. DAM FAILURE

A. Hazard Identification: Dam failures and incidents involve unintended release or surges of impounded water. They can destroy property and cause injury and death downstream. While they may involve the total collapse of a dam, that is not always the case. Damaged spillways, overtopping of a dam or other problems may result in a hazardous situation. Dam failures may be caused by structural deficiencies in the dam itself. Dam failures may also come from other factors including but not limited to debris blocking spillways, flooding, earthquakes, improper operation

and vandalism. Dam failures are potentially the worst flood events. When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path and posing a threat to life and property.

Dams are classified into three categories:

- High Hazard – Dams where failure or disoperation will probably cause loss of human life.
- Significant Hazard – Dams where failure or disoperation will probably not result in loss of life, but can cause economic loss, environmental damage, and disruption of lifeline facilities or other concerns.
- Low Hazard – Dams where failure or disoperation will probably not result in loss of life and cause only low economic and/or environmental loss.

B. Hazard Profile: Based on the current data from the National Inventory of Dams there are 42 dams located in Jefferson County. The average dam age is 58 years, 2% of the dams are regulated by state and non are regulated by federal agencies. All but three dams are in the unincorporated areas of the county, one in Louisville and two in Wadley. Of the 42 dams, 41 are low hazard and one is high hazard dam located at Lake Marion in Louisville. There has been one known dam failure to date during the flood of 1990. The committee felt that it was important to address the issue. A map and complete table of the dams can be found in Appendix A.

Based on interviews and best available data one dam failure has occurred within the last 34 years. Based on a 20-year hazard cycle the chance of an annual dam failure occurring is less than three percent for all of Jefferson County. Further study needs to be conducted to determine the precise probability of an annual dam failure event (*See Appendix A: Section II and Appendix D)*.

C. Assets Exposed to Hazard and Estimate of Potential Losses: The number of dams posing potential loss of life hazards to Jefferson County residents and the number of residents living downstream from these potentially hazardous dams is unknown at this time. Based on best available data, Avera and Stapleton appear not to be at risk due to dam failure. The data is not available currently for the committee to determine what assets are exposed to risk due to dam failure in the unincorporated areas of Jefferson County, Bartow, Louisville, Wadley and Wrens. The potential losses due to dam failure flooding are unknown and cannot be estimated at this time. The GMIS report has critical facilities replacement at more than $1.3 Billion with a population of 16,930. (*See Appendix A Section II and Appendix D).*

D. Land Use and Development Trends: Projected changes in land use based on the county's multi-jurisdictional comprehensive plan shows that the county has experienced very little growth over the past decade and future forecasts project relatively slow growth patterns. The main areas of the county considered adequate for growth are those areas adjacent to Louisville, Wrens, and Wadley. The majority of planned commercial, industrial and residential expansion is appropriate for these areas because of their proximity to the cities and the community facilities and services that they provide, as well as their access to major thoroughfares. Vulnerability in terms of future buildings, infrastructure and critical facilities is not known currently. It can be surmised that this future development will bring an increase in population and efforts must be made to ensure new homes are not built downstream where a dam break may occur. Current and Future Land Use maps, tables

and projections can be found in Appendix B. A dam break analysis study is recommended in Chapter III, Section II to determine the exact assets exposed to risk because of a dam failure.

E. Multi-Jurisdictional Concerns: Areas downstream of dams are most likely to be affected by a dam failure. Until a dam breach analysis is carried out it is hard to pinpoint what assets will be affected. Any mitigation steps taken related to dam failure should be undertaken on a countywide basis and include all incorporated jurisdictions.

During a natural hazard it is imperative that all emergency personnel 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 and all jurisdictions are aware of the need to develop communication capabilities that will serve their County

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.), damage reported, power outages, road closures, county and city personnel that are dispatched to the area, etc.

F. Hazard Summary: Dam failures and incidents involve unintended release or surges of impounded water. They can destroy property and cause injury and death downstream. While they may involve total collapse of a dam, that is not always the case. Since there has been one reported dam failure event in Jefferson County, the committee felt that it was important to address the issue due to the fact there are 42 dams in the county with one classified as high hazard. The committee recognized the potential for losses caused by dam failure and identified it as a hazard requiring mitigation measures. To summarize, there are approximately 37,363 structures/properties in the county totaling slightly less than $1.3 billion with a population of 16,930. The committee identified specific mitigation goals, objectives and action items related to dam failure, which can be found in Chapter III, Section II.

G. Climate Change: Studies have been conducted to investigate the impact of climate change scenarios on dam safety. Climate change impacts on dam failure in Jefferson County will most likely be those related to changes in precipitation and flood likelihood. Climate change projections suggest that precipitation may increase and occur in more extreme events, which may increase the risk of flooding, putting stress on dams and increasing the likelihood of dam failure. The safety of dams for the future climate can be based on an evaluation of changes in design floods and the freeboard available to accommodate an increase in flood levels.

SECTION III. DROUGHT

A. Hazard Identification: The committee reviewed historical data from the Palmer Drought Index, NCEI, DNR, and USDA in researching drought conditions in Jefferson County. Drought conditions are identified by a prolonged period of moisture deficiency. Climatologists and

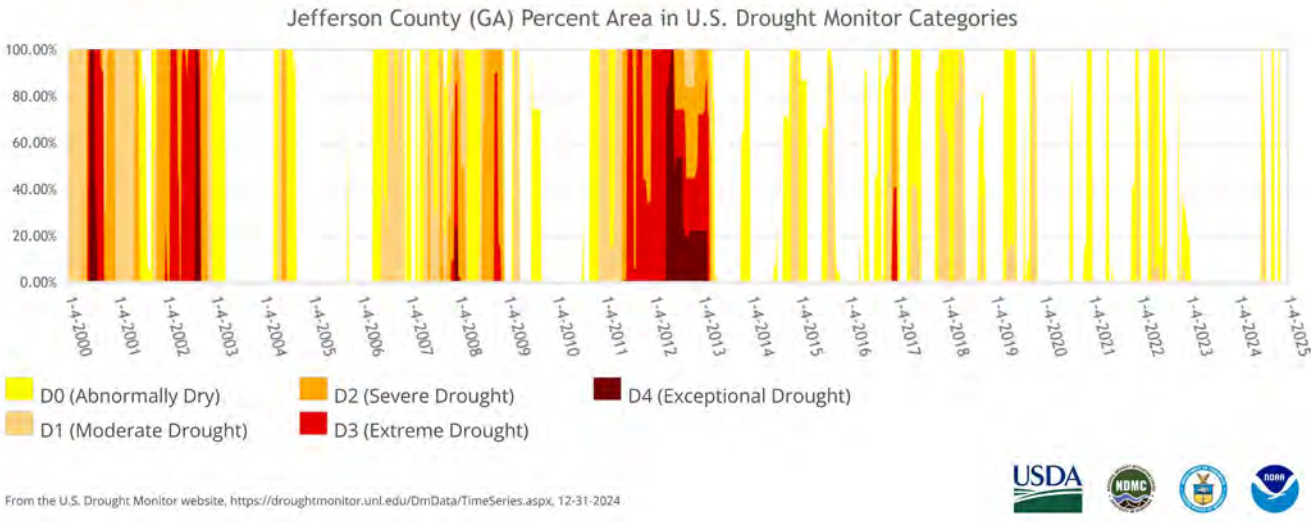
hydrologists use five indicators of drought: rainfall, soil moisture, stream flows, lake levels and groundwater levels. Drought conditions affect the cultivation of crops as well as water availability and water quality. Drought is also a key factor in wildfire development. Wildfire will be addressed in a separate HRV.

B. Hazard Profile: Drought is not spatially defined and has the potential to affect the entire planning area equally. Jefferson County has a total area of 339,200 acres of which 151,521 acres are dedicated to farming. According to the USDA 2022 Census of Agriculture 13,373 head of livestock. Agricultural losses due to drought have been the primary losses. No critical facilities have sustained any damage or functional downtime due to dry weather conditions.

There have been 25 drought events in the county in the last 69 years with estimated crop losses at $6.6 million. ***Historical data is only for the county as a whole.*** A severe, prolonged drought would mainly affect 88.9% of the county that makes up the timber and agriculture business. This could result in loss of crops, livestock and create 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 91.67% chance of an annual drought event. The chance for an annual drought event is the same for the county as well as all jurisdictions *(See Appendix A, Section III, and Appendix D)*

The Palmer Index(https://www.ncei.noaa.gov/access/monitoring/historical-palmers/) 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 for 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.

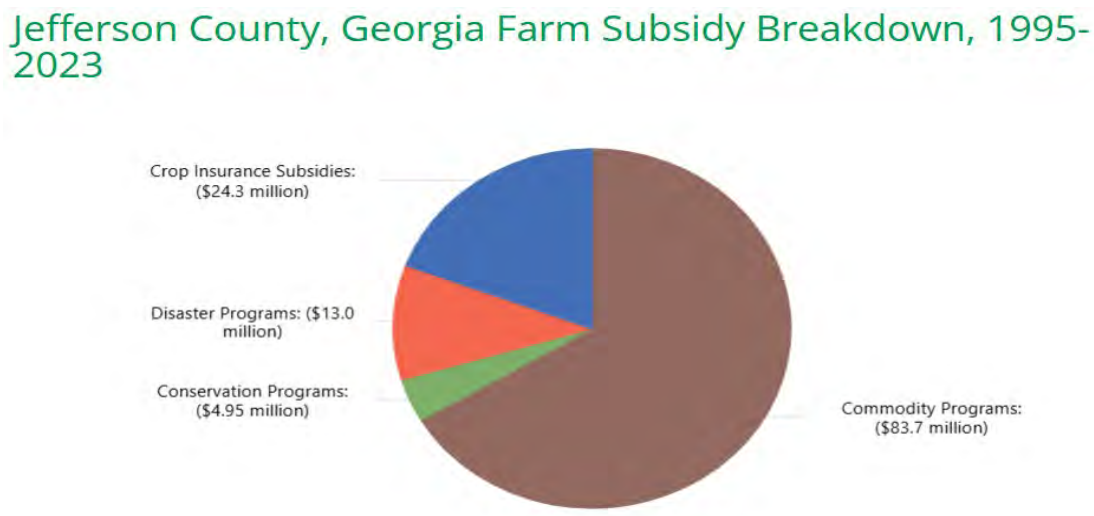
A review of The Palmer Index reveals there have been 731 drought events from January 2000 through November 2024. One of the longest running droughts in recent history began in September 2010 and ended in January 2013. The County was in extreme drought conditions from May 2011 to February 2013 and exceptional drought conditions from April 2012 to February 2013. The last drought ran from January 2022 to January 2023.



Based on the weekly data from the US Drought Monitor (https://droughtmonitor.unl.edu/) from January 2000 to November 2024 the county has experienced the following drought conditions:

- 737 weeks where all or a portion of the county has experienced D0 - Abnormally Dry;
- 498 weeks where all or a portion of the county has experienced D1 - Moderate Drought;
- 258 weeks where all or a portion of the county has experienced levels of D2 - Severe Drought;
- 163 weeks where all or a portion of the county has experienced levels of D3 - Extreme Drought; and
- 64 weeks where all or a portion of the county has experienced levels of D4 - Exceptional Drought. (US Drought Monitor Tables can be found in Appendix A.)

According to the USDA Farm Subsidies Database, from 1995-2023, Jefferson County received a total of $125 million in farm subsidy payments of which $13 million was for disaster assistance. The pie chart below depicts amounts and type of assistance. *Source: https://farm.ewg.org*



Historical data is only for the county. A severe, prolonged drought would mainly affect the 88.9 percent of the county that makes up the timber and agriculture business. This could result in loss of crops, livestock and create 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 91.67 percent chance of an annual drought event for the county. *(See Appendix A, Section III, for Worksheet 3a and Appendix D.)*

C. Assets Exposed to Hazard and Estimate of Potential Losses: Drought conditions typically pose little or no threat to structures; however, fires can occur as a result 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 as a result 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:

- Avera has 15 structures/properties valued at approximately $346,950 with an estimated population of 4.
- Bartow has 23 structures/properties valued at approximately $619,517 with an estimated population of 0.
- Louisville has 20 structures/properties valued at $469,970 with an estimated population of 8.
- Stapleton has 57 structures/properties valued at approximately $1.3 million with an estimated population of 4;
- Wadley has 53 structures/properties valued at approximately $2 million with a population of 12;
- Wrens has 21 structures/properties valued at $898,697 with a population of 8;
- Unincorporated Jefferson County has 7,501 structures/properties valued at approximately $461 million with an estimated population of 586.

There is a total of 7,690 agricultural/forestry properties in all of Jefferson County valued at more than $467 million with a population of 622 that are at the greatest risk due to a drought event *(Appendix A and Appendix D)*.

D. Land Use and Development Trends: Jefferson County currently has no land use or development trends related to drought conditions. When drought conditions do occur the county and all municipalities follow the restrictions set forth by the Georgia DNR Drought Management Plan and the Statewide Outdoor Water Use Schedule. All six water departments have adopted 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 uses for any purpose 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 be watered on Tuesdays, Thursdays and Sundays.
- Even numbered and unnumbered addresses are allowed to water on Mondays, Wednesdays and Saturdays.

The main areas of the county considered to experience growth are those areas adjacent to Louisville, Wrens, and Wadley. The majority of planned commercial, industrial and residential expansion is appropriate for these areas because of their proximity to the cities and the community facilities and services that they provide, as well as their access to major thoroughfares. Growth for the unincorporated areas of the county will be minimal. Vulnerability in terms of future buildings, infrastructure and critical facilities is not known at this time. Current and Future Land Use maps, tables and projections can be found 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 all incorporated jurisdictions 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 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 Jefferson 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 as a whole.*** Based on a 20-year cycle hazard history along with available data there is a 91.67 % chance of an annual drought event in Jefferson County. In addition to an increased threat of wildfires, drought can affect municipal and industrial water supplies, stream-water quality, water recreation facilities, hydropower generation, as well as agricultural and forest resources.

In summary, for Jefferson County as a whole, there are a total of 7,690 agricultural/forestry properties in Jefferson County valued at more than $467 million with a population of 622 and includes 13,373 head of livestock that are at the greatest risk due to a drought event. There is a population of 16,930 and approximately 40,626 structures/properties in the county with a value just slightly less than $1.3 billion which could be affected if wildfires break out as a result of drought conditions. Drought mitigation goals and objectives can be found in Chapter III, Section III.

G. Climate Change: The Fourth National Climate Assessment reports that average and extreme temperatures are increasing across the country and average annual precipitation is decreasing in the Southeast. Heavy precipitation events are becoming more frequent, meaning that there will likely be an increase in the average number of consecutive dry days. As temperature is projected to continue rising, evaporation rates are expected to increase, resulting in decreased surface soil moisture levels. Together, these factors suggest that drought will increase in intensity and duration in Jefferson County.

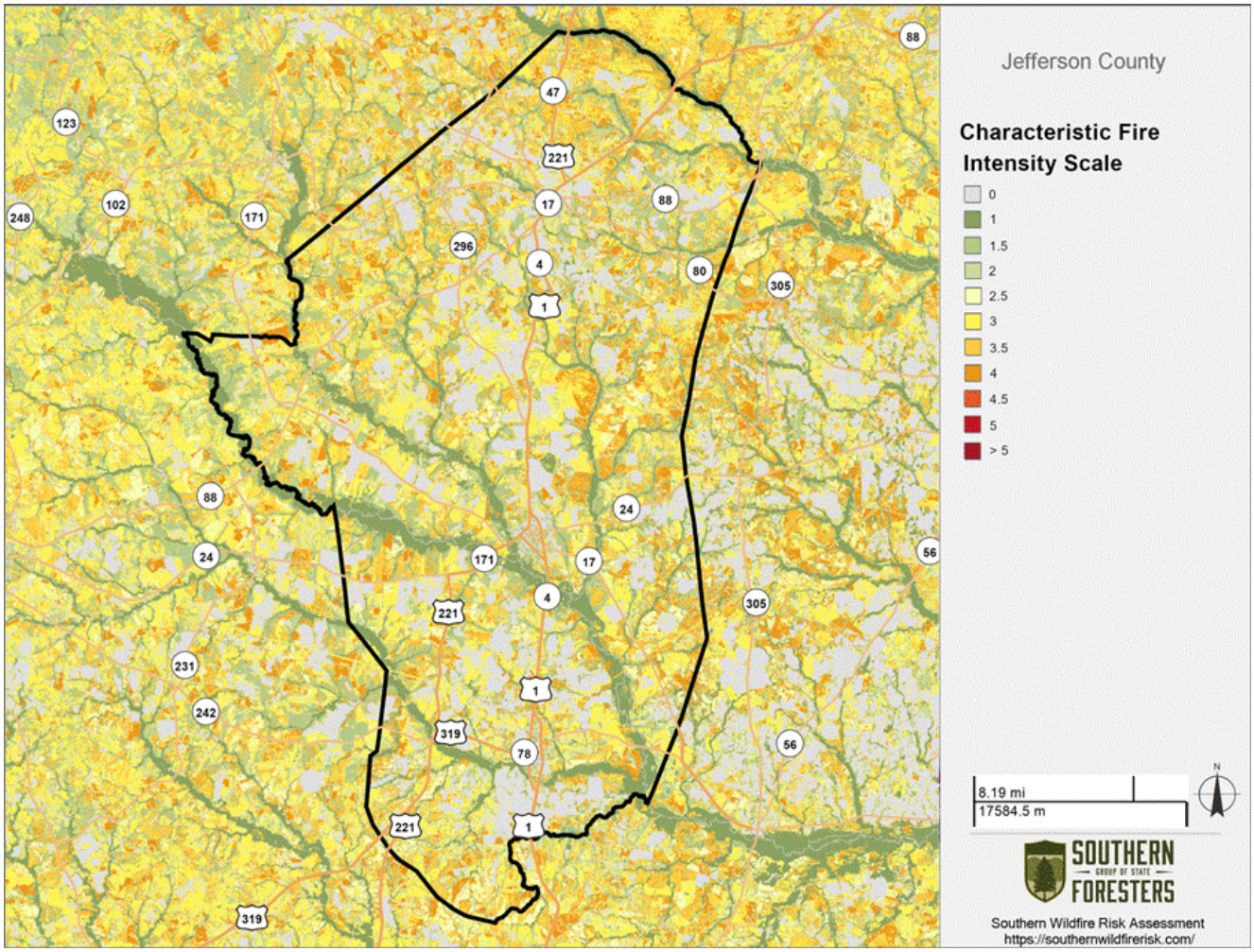
SECTION IV. WILDFIRE

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 caused 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.

B. Hazard Profile: Jefferson County has a total area of 339,200 acres of which 14,847 acres (4.4%) dedicated to agricultural and 287,186 acres (84.5%) dedicated to forestry. Given the right weather conditions and variables, wildfire, due to natural causes, creates a potential threat to the lives of residents and property in the planning area. The NCEI has never reported a significant wildfire event in Jefferson County.

The committee reviewed historical data from the Georgia Forestry Commission, which is not found in the NCEI database, to research wildfire events. The GFC provides wildfire data on man-made 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 2022, there have been 3,104 fire events burning a total of 17,277 acres for an average extent of 5.75 acres. Of these 3,104 fire events 168 were a result of lightning strikes that burned 1,505 acres. Based on best available data 180 wildfire events as a result of lightning. While data was collected looking at 60 years of data, frequency rate was calculated using a 20-year hazard cycle per guidance from GEMA. Based on a 20-year hazard cycle there is a 276% chance of an annual wildfire due to a lightning strike or statistically the county can expect 4 wildfires as a result of lightning annually. The drier the condition the more susceptible the county is to wildfire (*See Appendix A)*.

Data from the Southern Wildfire Risk Assessment Summary Report summarizes wildfire related information for Jefferson County. This report is a detailed risk summary designed to help prioritize areas where mitigation treatments, or tactical analysis might be necessary to reduce risk from wildfires. The characteristic Fire Intensity Scale quantifies the potential fire intensity by order of magnitude as determined by fuel and range of possible wind and weather conditions.



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 as a result of a wildfire event are more likely to occur in areas of the county where forestry and woodland are prevalent. Wildfire does have the potential to spread into the incorporated areas and cause extensive damage to existing structures/properties. FEMA Worksheet #3a located in Appendix D shows the number and types of buildings found in Jefferson County, as well as the value of these structures/properties and the population. The following assets by jurisdiction could potentially be exposed to wildfire hazard:

Jurisdiction	Number of Structure/Properties	Value	Population
Jefferson County (Unincorporated)	25,319	$919,281,333	9,219
Avera	776	$6,507,938	246
Bartow	745	$11,059,155	286
Louisville	4,741	$115,404,410	2,493

Jurisdiction	Number of Structure/Properties	Value	Population
Stapleton	1,081	$13,367,033	438
Wadley	3,740	$118,237,863	2,061
Wrens	4,224	$104,510,573	2,187
TOTAL FOR COUNTY	40,626	$1,288,368,303	16,930

Source: Jefferson County Tax Assessor

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

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Day	Night
Jefferson County	4	1	$1,300,621	$29,600	4	0
Jefferson County	3	31	$257,906,697	$9,727,000	2,326	589
Jefferson County	2	2	$2,112,000	$0	508	0
Jefferson County	1	1	$1,500,000	$5,233,000	0	0
Jefferson County	0	6	$58,680,775	$2,616,500	1,107	75
Avera	3	3	$737,500	$400,000	1	0
Bartow	4	6	$2,263,730	$348,500	2	2
Bartow	3	5	$1,306,547	$53,500	4	1
Bartow	2	4	$238,500	0.00	0	0
Bartow	1	1	$63,700	0.00	0	0
Louisville	4	1	$5,000,000	0.00	225	200
Louisville	3	9	$10,336,225	$1,700,000	44	4
Louisville	2	3	$1,037,500	0.00	0	0
Louisville	1	1	$950,000	0.00	0	0
Louisville	0	6	$20,818,665	0.00	2	0
Stapleton	3	4	$2,584,292	$774,000	4	0
Wadley	4	7	$4,870,863	$1,788,200	125	95
Wadley	3	10	$3,429,790	$700,000	21	2
Wrens	3	16	$9,714,714	$976,224	40	0
Wrens	2	3	$1,325,000	$50,000	0	0
Wrens	1	1	$750,000	0.00	0	0
Wrens	0	10	$6,185,143	$150,000	10	0
	TOTAL	**131**	**$393,112,262**	**$14,843,540**	**4,423**	**968**

The GMIS has 15 critical facilities with a hazard score of four (high), 78 with a hazards score of three (moderate), 12 with a hazard score of 2 (low) and four with a hazard score of one (very low probability). The remaining 22 critical facilities have a hazard score of zero. The 109 critical facilities with a wildfire hazard score greater than zero have an estimated potential loss of more than $307 million. The loss for all critical facilities is $393,112,262. According to FEMA Worksheet #3a there are 40,626 structures/properties with a population of 16,930 with a value of

slightly less than $1.3 billion worth of assets countywide. If a wildfire started, it is not likely that all of these structures/properties would be affected (*See Appendix A and Appendix D).*

D. Land Use and Development Trends: Jefferson 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 Jefferson County Fire Department. 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: The majority of Jefferson County is timber, forest or agricultural land. If a wildfire occurs it is imperative that all emergency personnel 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 and all jurisdictions are aware of the need to develop communication capabilities that will serve their county.

Wildfire does have the potential to spread to urban areas thus affecting the entire county. As a result, any mitigation steps taken related to wildfire should be undertaken on a countywide basis and include all incorporated jurisdictions.

F. Hazard Summary: Jefferson County has a total area of 339,200 acres of which 14,847 acres (4.4%) dedicated to agricultural and 287,186 acres (84.5%) dedicated to 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. Of the 3,104 fire events, 168 were a result of lightning strikes that burned 1,505 acres. Based on a 20-year hazard cycle there is a 276% chance of an annual wildfire due to a lightning strike or statistically the county can expect 4 wildfires as a result of lightning annually. Mitigation Goals and Objectives concerning wildfires can be found in Chapter III, Section IV.

G. Climate Change: It must be taken into consideration that the daily chance of a wildfire event will continue to increase annually as a result of continuous climate changes. The wildfire season has lengthened in many areas due to factors including warmer springs, longer summer dry seasons, drier soils, and dead vegetation.

SECTION V. TORNADOS

A. Hazard Identification: The committee reviewed historical data from the NCEI, SHELDUS^{TM}, newspapers and citizen interviews in researching the past effects of tornados in Jefferson County.

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 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 man-made 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: Based on historic data, there have been 15 reported tornados in the planning area. The highest magnitude reported was an F3. Total reported property damages were more than $9.5 million in property damages with 12 injuries reported. 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 a chance for a tornado event at 28% every three and a half years.

The following table was produced from the NCEI and SHELDUS™ databases and shows the event, severity and estimate cost of damages reported. *(See Appendix A, Section I and Appendix D).*

Table 2.10

Date	Location	Mag	Inj	PD	CrD
7/22/1970	Jefferson	F0	0	$0.00	$0.00
7/19/1971	Jefferson	F1	0	$25,000.00	$0.00
1/13/1972	Jefferson	F3	21	$2,500,000.00	$0.00
3/18/1981	Jefferson	F1	1	$2,500.00	$0.00
7/25/1981	Jefferson	F1	0	$250,000.00	$0.00
12/4/1983	Jefferson	F0	2	$5,000.00	$0.00
10/1/1989	Jefferson	F1	2	$2,500.00	$0.00
06/01/1992	Jefferson	F0	0	$5,000.00	$0.00
3/7/1996	Wrens	F1	5	$1,000,000.00	$0.00
6/15/1996	Bartow	F0	0	$10,000.00	$0.00
7/1/2003	Jefferson	F1	0	$0.00	$0.00
3/15/2008	Jefferson	F2	0	$500,000.00	$0.00
5/11/2008	Grange	F0	0	$5,000,000.00	$0.00
4/10/2009	Stapleton	F1	0	$100,000.00	$0.00
04/03/2017	Grange	F0	0	$25,000.00	$0.00
4/13/2020	Almira	F0	0	$20,000.00	$0.00

1/4/2023	Magnolia	F0	0	$0.00	$0.00
Total				$9,445,000.00	

Source NCEI and Sheldus

C. Assets Exposed to Hazard and Estimate of Potential Losses: All structures and facilities within the County could be damaged by a tornado, as tornadoes are among the most unpredictable weather phenomena and are indiscriminate as to when or where they strike. In evaluating assets exposed to natural hazards, the committee determined that all critical facilities, as well as public, private and commercial property, are susceptible to tornado events. Table 2.11 provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Table 2.11

Jurisdiction	Number of Structure/Properties	Value	Population
Jefferson County (Unincorporated)	25,319	$919,281,333	9,219
Avera	776	$6,507,938	246
Bartow	745	$11,059,155	286
Louisville	4,741	$115,404,410	2,493
Stapleton	1,081	$13,367,033	438
Wadley	3,740	$118,237,863	2,061
Wrens	4,224	$104,510,572	2,187
TOTAL FOR COUNTY	40,626	$1,288,368,303	16,930

Source: Jefferson County Tax Assessor

Table 2.12 shows the number of critical facilities by jurisdiction, hazard score, replacement value, content value, and daily occupancy. GMIS critical facility reports and FEMA Worksheet #3a are located in Appendix A for each individual jurisdiction and the county as a whole.

Table 2.12

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Day	**Night**
Jefferson County	2	38	$319,795,523	$11,964,100	3,884	664
Jefferson County	0	3	$1,704,570	$409,000	95	0
Avera	2	3	$737,500	$400,000	1	0
Bartow	2	16	$3,872,477	$402,000	6	3
Louisville	2	16	$22,842,390	$1,700,000	269	204
Louisville	0	4	$15,300,000	0.00	2	0
Stapleton	2	4	$2,584,292	$774,000	2	0
Wadley	2	17	$8,300,653	$2,488,200	146	97
Wrens	2	30	$17,974,857	$51,176,224	50	0
TOTAL		**131**	**$393,112,262**	**$69,313,524**	**4,455**	**968**

D. Land Use & 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. Currently, the county has no land use or development trends related to tornado events. Information on current land use and future land use projections can be found in Appendix B.

E. Multi-Jurisdictional Concerns – Tornadoes tend to follow a straight path regardless of natural features or political boundaries, and no difference in severity is expected between jurisdictions. However, the impact may be more severe in places with higher population density due to more people being in danger, more people needing to evacuate, more debris from damaged buildings, and other impacts associated with higher population density. In jurisdictions without building codes and inspections, structures may exist that are not built to code and therefore may be especially vulnerable to the effects of strong winds and other hazards. In jurisdictions with a large number of mobile homes, the damage can be expected to be more severe.

F. Hazard Summary: Tornados do not touch down as 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 54 years of historical data, there have been 15 reported tornados in the planning area. The highest magnitude reported was an F3. Reported property and crop damages for all 15 events totaled more than $9.5 Million with 12 injuries. Tornados tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. There is a 28 percent annual chance of a tornado event for the County as a whole. A breakdown of information for individual jurisdictions can be found in Appendix A and Appendix D. Specific mitigation actions for tornado events are identified in Chapter III, Section III.

G. Climate Change: Another aspect that must be taken into consideration is the effect climate change can have on the frequency, probability, and intensity of tornados. Increased greenhouse gases in the atmosphere are known to cause atmospheric warming. This warming raises convective available potential energy (CAPE), which is the measure of energy available for storms to form. This warming and increase of CAPE can significantly increase the number of days, frequency, and intensity of thunderstorm winds that affect Jefferson County and its municipalities. It's important to note that while there is a scientific consensus that climate change is happening and is largely driven by human activities, its exact impacts on specific weather phenomena like thunderstorm winds can also vary based on location and other natural factors such as changes in wind patterns, changes in land use and/or topography, etc.

SECTION VI. TROPICAL STORMS

A. Hazard Identification: The committee reviewed historical data from the NCEI, SHELDUS™, newspapers and citizen interviews in researching the past effects of Tropical Storms in Jefferson 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's 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 prevail. 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. Jefferson County is not likely to experience hurricanes or storm surges.

Table 2.13

Saffir Simpson Scale for Hurricanes		
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 and all of Jefferson County is vulnerable to threats. There have been 13 tropical storms reported in Jefferson County by the NCEI and SHELDUSTM. Damage as a result of the storms was due to power outages, downed trees and flash flooding. The tropical storms affected the entire planning area. Data for each jurisdiction is not available. Based on the hazard frequency table there is a 60% chance of a tropical storm event for all jurisdictions everyone and a half years (See Appendix D).

Table 2.14

Details	Date	PrD	CrD
as a result of Tropical Storm Hanna	9/14/2002	0.00	0.00
as a result of Tropical Depression Bill	7/1/2003	0.00	0.00
as a result of Hurricane Frances	9/6/2004	0.00	0.00
as a result of Hurricane Ivan	9/16/2004	0.00	0.00
as a result of Hurricane Jeanne	9/26/2004	0.00	0.00
as a result of Tropical Storm Arlene	6/12/2005	0.00	0.00
as a result of Tropical storm Tammy	10/5/2005	0.00	0.00
As a result of tropical storm Fay	08/21/2008	0.00	0.00
as a result of Hurricane Ida	11/10/2009	0.00	0.00
as a result of Hurricane Jeanne	09/04/2011	0.00	0.00
as a result of Tropical Storm Irma	09/11/2017	0.00	0.00
as a result of Hurricane Michael	10/10/2018	0.00	0.00

Details	Date	PrD	CrD
Tropical Storm Faye	10/29/2020	0.0	0.0
As a result of Hurricane Helene	10/27/2024	0.0	0.0

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 tropical storms. The GMIS has the entire county with a wind hazard score of two, where wind speed is between 90 to 99 mph. Table 2.15 provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Table 2.15

Jurisdiction	Number of Structure/Properties	Value	Population
Jefferson County (Unincorporated)	25,319	$919,281,333	9,219
Avera	776	$6,507,938	246
Bartow	745	$11,059,155	286
Louisville	4,741	$115,404,410	2,493
Stapleton	1,081	$13,367,033	438
Wadley	3,740	$118,237,863	2,061
Wrens	4,224	$104,510,571	2,187
TOTAL FOR COUNTY	40,626	$1,288,368,303	16,930

Source: Jefferson County Tax Assessor

Table 2.16 shows the number of critical facilities by jurisdiction, hazard score, replacement value, content value, and daily occupancy.

Table 2.16

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Day	Night
Jefferson County	2	38	$319,795,523	$11,964,100	3,884	664
Jefferson County	0	3	$1,704,570	$409,000	95	0
Avera	2	3	$737,500	$400,000	1	0
Bartow	2	16	$3,872,477	$402,000	6	3
Louisville	2	16	$22,842,390	$1,700,000	269	204
Louisville	0	4	$15,300,000	0.00	2	0
Stapleton	2	4	$2,584,292	$774,000	2	0
Wadley	2	17	$8,300,653	$2,488,200	146	97
Wrens	2	30	$17,974,857	$51,176,224	50	0
TOTAL		**131**	**$393,112,262**	**$69,313,524**	**4,455**	**968**

GMIS critical facility reports and FEMA Worksheet #3a are located in Appendix D for each individual jurisdiction and the county as a whole.

D. Land Use & 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. Jefferson 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 tropical storms. Information on current land use and future land use projections can be found in Appendix B.

E. Multi-Jurisdictional Concerns – All of Jefferson County has the same design wind speed of 200 mph. The entire county has the potential to be affected by tropical storms. As a result, any mitigation steps taken related should be considered on a county-wide basis to include all jurisdictions.

F. Hazard Summary: The entire county has the potential to be affected by tropical storms. Based on 22 years of historical data, there have been 13 tropical storms reported by the NCEI and SHELDUS™. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly more than $1.2 billion with a population of 16,930. A breakdown of information for individual jurisdictions can be found in Appendix A and Appendix D.

G. Climate Change: Another aspect that must be taken into consideration is the effect climate change can have on the frequency, probability, and intensity of tropical storms. Increased greenhouse gases in the atmosphere are known to cause atmospheric warming. This warming raises convective available potential energy (CAPE), which is the measure of energy available for storms to form. This warming and increase of CAPE can significantly increase the number of days, frequency, and intensity of thunderstorm winds that affect Jefferson County and its municipalities. It's important to note that while there is a scientific consensus that climate change is happening and is largely driven by human activities, its exact impacts on specific weather phenomena like thunderstorm winds can also vary based on location and other natural factors such as changes in wind patterns, changes in land use and/or topography, etc.

SECTION VII. SEVERE WEATHER INCLUDING THUNDERSTORM WINDS, LIGHTNING, AND HAIL

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 in Jefferson County. Three types of severe weather were identified by the mitigation team: (1) thunderstorm winds, (2) lightning and (3) hail.

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

Thunderstorm winds are winds that arise 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 clouds. 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.

Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas. Rising and descending air within a thunderstorm separates these positive and negative charges. Water and ice particles also affect charge distribution. A cloud-to-ground lightning strike begins as an invisible channel of electrically charged air moving from the cloud toward the ground. When one channel nears an object on the ground, a powerful surge of electricity from the ground moves upward to the clouds and produces the visible lightning strike. Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall.

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.

B. Hazard Profile: Thunderstorm winds, lightning and hail can affect the entire county given the right conditions. Since the exact time and location of a severe weather event is not always predictable, all of Jefferson County is vulnerable to the threats of severe weather.

Based on historical data, there have been 89 reported thunderstorms in the planning area in the last 63 years. Reported property damages totaled more than $929,750 in property damages with 7 injuries reported. Using a 20-year hazard cycle, frequency tables calculate an annual chance for a thunderstorm event at 141% for Jefferson County as a whole at least twice a year.

The NCEI and SHELDUS™ databases show the event, severity and estimate cost of damages reported. *(See Appendix A, Section I and Appendix D).* A complete table of thunderstorm wind events can be found in Appendix A.

During the spring and summer months the county experiences numerous storms that can often produce lightning. There have been 4 reported lightning events to the NCEI and SHELDUS over 74 years with slightly more than $235,500 in property and crop damages with no injuries reported. There have been 180 lightning strikes recorded in the same time frame that resulted in wildfires.

In the last 65 years there have been 32 hail events reported to the NCEI and SHELDUS databases with slightly less than $ 430,000 in property and crop damages. While data was collected looking at 65 years of data, frequency rate was calculated using a 20-year hazard cycle per guidance from GEMA. Using a 20-year hazard cycle, frequency tables calculate an annual chance for a hail event at: 50% every two years.

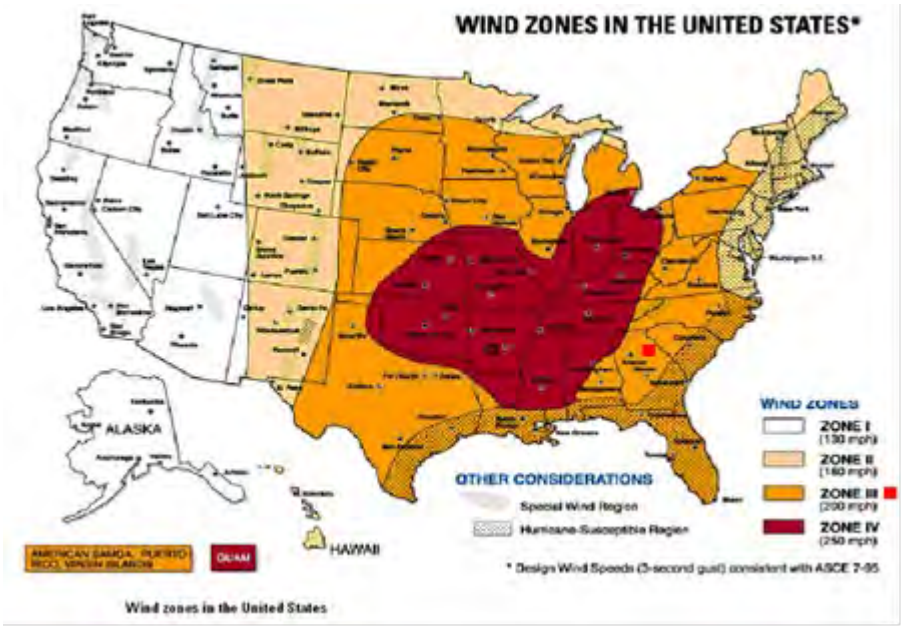
C. Assets Exposed to Hazard and Estimate of Potential Losses: In evaluating assets exposed to natural hazard, the committee determined that all critical facilities, as well as all public, private and commercial property, are susceptible to tornados, tropical storms, thunderstorm winds, lightning and hail events. The GMIS has the entire county with a wind hazard score of two, where wind speed is between 90 to 99 mph. The table below provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Jurisdiction	Number of Structure/Properties	Value	Population
Jefferson County (Unincorporated)	25,319	$919,281,333	9,219
Avera	776	$6,507,938	246
Bartow	745	$11,059,155	286
Louisville	4,741	$115,404,410	2,493
Stapleton	1,081	$13,367,033	438
Wadley	3,740	$118,237,863	2,061
Wrens	4,224	$104,510,571	2,187
TOTAL FOR COUNTY	40,626	$1,288,368,303	16,930

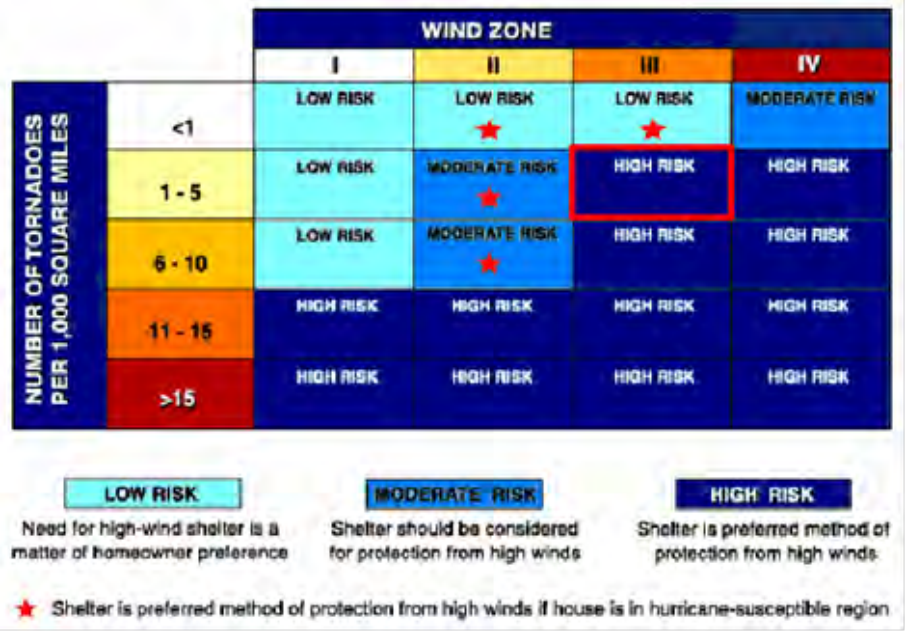
Source: Jefferson County Tax Assessor

D. Land Use & Development Trends: Jefferson 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 storms, thunderstorm winds, lightning, or hail events. Information on current land use and future land use projections can be found in Appendix B.

E. Multi-Jurisdictional Concerns – All of Jefferson 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



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

The GMIS has the entire county with a wind hazard score of two, where wind speed is between 90 to 99 mph. All 118 critical facilities have a wind hazard score of two with a replacement cost of more than $328 million. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly less than $1.3 billion with a population of 16,930. 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 V.

G. Climate Change: Another aspect to consider is the effect climate change can have on the frequency, probability, and intensity of tropical storms. Increased greenhouse gases in the atmosphere are known to cause atmospheric warming. This warming raises convective available potential energy (CAPE), which is the measure of energy available for storms to form. This warming and increase of CAPE can significantly increase the number of days, frequency, and intensity of thunderstorm winds that affect Jefferson County and its municipalities. It's important to note that while there is a scientific consensus that climate change is happening and is largely driven by human activities, its exact impacts on specific weather phenomena like thunderstorm winds can also vary based on location and other natural factors such as changes in wind patterns, changes in land use and/or topography, etc.

SECTION VIII. 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 high winds, ice and freezing rain, heavy snowfall, and cold temperatures. These conditions can make driving conditions very dangerous, as well as bringing down trees and power lines.

B. Hazard Profile: Winter storms are not spatially defined and affect the entire planning equally. The committee researched historical data from the NCEI, SHELDUS™, and SERCC, as well as information from past newspaper articles relating to winter storms in Jefferson County. There have been 17 winter storm events recorded in the county over the last 74 years with an estimated property damage of $417,089.

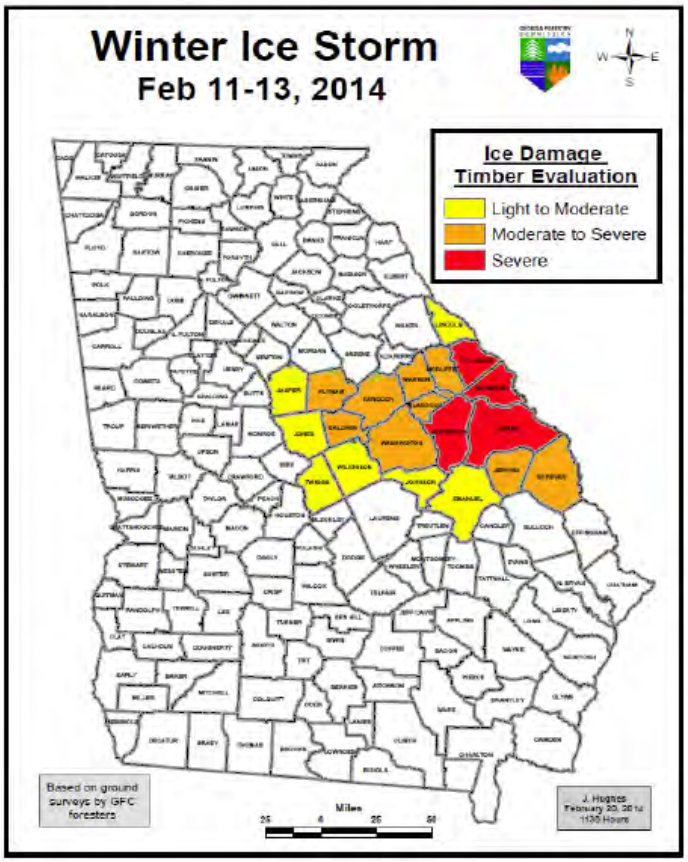
The most recent ice storm on February 11-13, 2014 had halted travel, schools and businesses were closed and approximately 9,000 customers were without power at the height of the storm. Power company officials called the devastation to their lines and the ensuing outages historical for this area, which reportedly took the hardest hit of any in the state. In the more rural parts of the County individuals were without power for up to 10 days.

More than 25,000 cubic yards of storm debris were collected county-wide. FEMA reimbursement claims for the cost of debris removal total more than $225,000. The dairy and beef producers felt the effects as electric fences lost power, while others were downed by falling trees and limbs. Without power for their pumps many wells were inoperable. The dairy farms in the county relied on generators to milk their cows. Cows need to increase their calorie intake by 1 percent for every degree the temperature drops below 32 degrees.

The other major after effect was to the timber industry. Jefferson County was one of the four counties hardest hit by the storm and had 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 severe

damage had more than 30 percent of stems broken, tops broken out across the stand, limbs stripped, and trees bent more than 45 degrees.

Senior Forester Cathy Black stated that the timber industry is a business that takes decades to turn a profit. Some landowners will be set back 30 years. Some of the hardest hit areas crops of trees, called stands in the business, have been reduced to splinters. The tops were broken off the pine trees, some trees were snapped in half, and others blown over laying on the ground. When this happens all that can be done is to clear cut it and plant new trees.



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 23% chance of a winter storm event every 4 years. The percentage is the same for all jurisdictions.

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
Jefferson County (Unincorporated)	25,319	$919,281,333	9,219
Avera	776	$6,507,938	246
Bartow	745	$11,059,155	286
Louisville	4,741	$115,404,410	2,493
Stapleton	1,081	$13,367,033	438
Wadley	3,740	$118,237,863	2,061
Wrens	4,224	$104,510,571	2,187
TOTAL FOR COUNTY	40,626	$1,288,368,303	16,930

Source: Jefferson County Tax Assessor

The GMIS does not provide a report for winter storm damage but there is slightly less than $1.3 billion 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 and daily occupancy (*See Appendix A, Section VI and Appendix D).*

Jurisdiction	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
				Day	Night
Jefferson County	33	$261,160,993	$11,070,700	4073	795
Avera	3	$737,500	$400,000	1	0
Bartow	16	$3,872,477	$402,000	6	3
Louisville	19	$38,442,390	$1,700,000	271	204
Stapleton	4	$1,778,500	$730,000	2	0
Wadley	17	$7,800,653	$2,388,200	146	97
Wrens	26	$15,112,500	$1,174,200	50	0
TOTAL	**118**	**$328,905,013**	**$17,865,100**	**4,549**	**1,099**

D. Land Use & Development Trends: Jefferson County currently has no land use or development trends related to winter storms. Projected changes in land use based on the county's multi-jurisdictional 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 forest land 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 not known at this time. It can be surmised that this will bring an increase in population and homes. Land use tables and projections can be found in Appendix B.

E. Multi-Jurisdictional Concerns: Jefferson County currently has no land use or development trends related to winter storms. All of the county can potentially be negatively impacted by winter storms. As a result, any mitigation steps taken related to winter storms should be undertaken on a countywide basis and include all incorporated jurisdictions. A concern is the lack of available data for the county and all municipalities. A database needs to be created and maintained that provides information on past and future occurring winter storm events.

Another major issue is county-wide communications capabilities. During a natural hazard it is imperative that all emergency personnel 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 county and all jurisdictions are aware of the need to develop communication capabilities that will serve the entire county.

F. Hazard Summary: There have been 17 recorded winter storms. There is a 23% chance of an winter storm event every four years. 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 40,626 structures/properties in the county totaling slightly less than $1.3 billion with a population of 16,930. The committee recognized the dangers posed by winter storms and identified specific mitigation actions in Chapter III, Section VI.

G. Climate Change: The Environment Protection Agency reported in 2016 that the state of Georgia, including Jefferson County, will continue to experience an annual warming trend as a result of broader climate change. Though this may decrease the future risk of ice storms and severe winter weather, Jefferson County must remain vigilant in preparing for winter hazards, given its proclivity of unexpected storms to shudder the county's response resources.

SECTION VIII. EARTHQUAKE

A. Hazard Identification - Earthquakes are one of nature's most damaging hazards. An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of Earth's tectonic plates. The severity of these effects is dependent on the amount of energy released from the fault or epicenter. They usually occur without warning and after just a few seconds can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. If an earthquake occurs in a populated area, it may cause many deaths, injuries and extensive property damage.

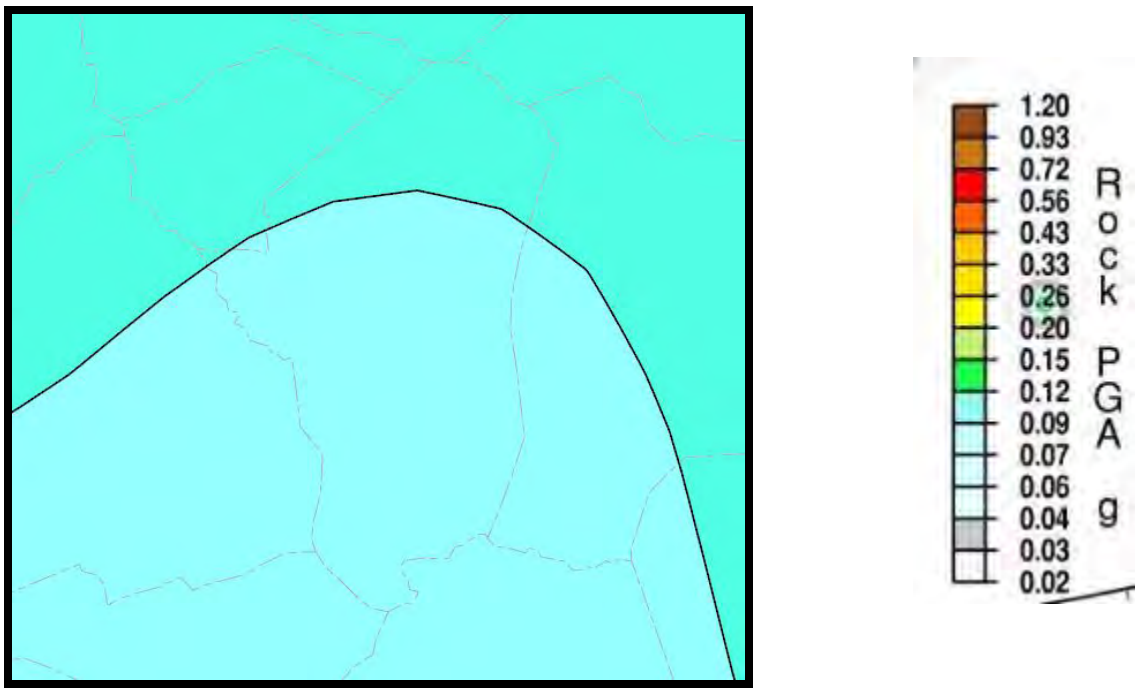
Magnitude and intensity measure different characteristics of earthquakes. Magnitude measures the energy released at the source of the earthquake and is determined from measurements on seismographs. Intensity measures the strength of shaking produced by the earthquake at a certain location and is determined from effects on people, human structures, and the natural environment. The following two tables describe the Abbreviated Modified Mercalli Intensity Scale and show intensities that are typically observed at locations near the epicenter of an earthquake event.

Magnitude	Typical Maximum Modified Mercalli Intensity
1.0 - 3.0	**I**
3.0 - 3.9	**II - III**
4.0 - 4.9	**IV - V**
5.0 - 5.9	**VI - VII**
6.0 - 6.9	**VII - IX**
7.0 and higher	**VIII** or higher

Abbreviated Description of the 12 levels of Modified Mercalli Intensity.		
Intensity	**Shaking**	**Description/Damage**
I.	Not felt	Not felt except by a very few under especially favorable conditions.
II.	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III.	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV.	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V.	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI.	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII.	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII.	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX.	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X.	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.
XI.	Extreme	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.
XII.	Extreme	Damage total. Lines of sight and level are distorted. Objects thrown into the air.

Source: USGS

Based on U.S. Geological Survey Two-percent probability of exceedance in 50 years map of peak ground acceleration is between one and nine percent (see map below). As discussed above, such predictions are based on limited information and cannot necessarily be relied upon for their precision. However, they do help demonstrate that the threat of earthquakes cannot be overlooked even in a relatively inactive geographic area such as Jefferson Co. **PGA with 2% 50-year PE**



Source: https://earthquake.usgs.gov/

B. Hazard Profile – The planning committee examined historical data from the NCEI, past newspaper articles, and conducted interviews during its research on the effects of past earthquake events. While earthquake events have never occurred in Jefferson County, they hope to be prepared if one does. ***All data covers the county as a whole; no data is available by jurisdiction***. GMIS has 25 percent of the county with a seismic hazard score of three and the remaining one percent with a seismic hazard score of two.

C. Assets Exposed to Hazard and Estimate of Potential Losses: All critical facilities, personal, and public property in Jefferson County are susceptible to damage caused by an earthquake. There are no damage records available in relation to earthquakes. Loss would be determined based on intensity and magnitude and would vary in each case. All critical facilities, personal, and public property in Jefferson County are susceptible to damage caused by an earthquake. Worksheet #3a has assets exposed to an earthquake hazard for each jurisdiction as:

Jurisdiction	Number of Structure/Properties	Value	Population
Jefferson County (Unincorporated)	25,319	$919,281,333	9,219
Avera	776	$6,507,938	246
Bartow	745	$11,059,155	286
Louisville	4,741	$115,404,410	2,493
Stapleton	1,081	$13,367,033	438
Wadley	3,740	$118,237,863	2,061
Wrens	4,224	$104,510,571	2,187
TOTAL FOR COUNTY	40,626	$1,288,368,303	16,930

Source: Jefferson County Tax Assessor

The table below shows the number of critical facilities potentially at risk by jurisdiction, daily occupancy and replacement value (*See Appendix A and Appendix D).*

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value $	Content Value $	Occupancy	
					Day	Night
Jefferson County	3	4	$222,598,143	$9,070,700	3,101	795
Jefferson County	2	29	$38,562,850	$2,000,000	972	0
Avera	2	3	$737,500	$400,000	1	0
Bartow	2	16	$3,872,477	$402,000	6	3
Louisville	3	1	$15,000,000	0.00	2	0
Louisville	2	16	$23,142,390	$1,700,000	269	204
Louisville	0	2	$300,000	0.00		
Stapleton	2	4	$1,778,500	$730,000	2	0
Wadley	2	17	$7,800,653	$2,388,200	146	97
Wrens	3	26	$15,112,500	$1,174,200	50	0
TOTAL		**118**	**$328,905,013**	**$17,865,100**	**4,549**	**1,099**

D. Land Use and Development Trends—There are no specific land use and development trends in relation to earthquakes at this time.

E. Multi-jurisdictional Concerns - All of Jefferson County can potentially be negatively impacted by an earthquake. As a result, any mitigation steps taken related to earthquakes should be undertaken on a countywide basis to include all municipalities. A concern is the lack of available data for the county and all incorporated jurisdictions. A database needs to be created and maintained that provides information on past and future occurring earthquake events.

F. Hazard Summary - An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of Earth's tectonic plates. The severity of these effects is dependent on the amount of energy released from the fault or epicenter. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and after just a few seconds can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. If an earthquake occurs in a populated area, it may cause many deaths, injuries and extensive property damage. The committee recognized the potential for losses caused by an earthquake and identified it as a hazard requiring mitigation measures. There has not been a reported earthquake event reported in the last 68 years. Based on a 20-year cycle hazard history there is less than a 1% probability of an annual earthquake event. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly less than $1.3 billion with a population of 16,930 The planning committee identified specific mitigation goals, objectives and action items related to earthquakes, which can be found in Chapter III, Section II and III.

G. Climate Change: Scientists are beginning to believe there may be a connection between climate change and earthquakes. Changing ice caps and sea levels redistribute weight over fault lines, which could potentially have an influence on earthquake occurrences. However, currently, no studies quantify the relationship to a high level of detail, so recent earthquakes should not be linked with climate change. While not conclusive, early research suggests that more intense earthquakes and tsunamis may eventually be added to the adverse consequences that are caused by climate change.

CHAPTER III. MITIGATION STRATEGIES

Table 3.1 provides a brief description of each section in this chapter and a summary of the changes that have been made.

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. Goals, Objective, and Actions Steps were updated to new format.
II. Dam Failure	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. Goals, Objective, and Actions Steps were updated to new format.
III. 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. Goals, Objective, and Actions Steps were updated to new format.
IV. 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. Goals, Objective, and Actions Steps were updated to new format.
V. 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. Goals, Objective, and Actions Steps were updated to new format.
VI. Winter	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. Goals, Objective, and Actions Steps were updated to new format.
VII. Earthquake	This hazard was added was not in last plan. Developed Goals, Objective, and Actions Steps.
VIII. All Hazards	Category added to take goals that apply to all Hazards to reduce redundancy.

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 Jefferson County, Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens 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

The County 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. Below are the annual budgets for each jurisdiction:

- Jefferson County: $17,950,217
- Avera: $140,000
- Bartow: $219,800
- Louisville: $1,934,100
- Stapleton: $395,624
- Wadley: $2,018,000
- Wrens: $4,900,000

It should be noted that mitigation action steps with high dollar amounts cannot 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 for any professional services needed. The three tables below identify the administrative, technical, legal and fiscal capabilities of each jurisdiction.

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

Regulatory Tools (ordinances, codes, plans)	Jefferson County	Avera	Bartow	Louisville	Stapleton	Wadley	Wrens	Does State Prohibit
Building code	Y	N	N	Y	N	Y	Y	N
Zoning ordinance	N	N	N	Y	N	Y	Y	N
Subdivision ordinance or regulations	N	N	N	Y	N	N	Y	N
Special purpose ordinances (floodplain management, storm water management, soil erosion)	Y	N	Y	Y	Y	Y	Y	N
Growth management ordinances (also called “smart growth” or anti-sprawl programs)	N	N	N	N	N	N	N	N
Site plan review requirements	Y	N	N	Y	N	N	Y	N
General or comprehensive plan	Y	Y	Y	Y	Y	Y	Y	N
A capital improvements plan	Y	N	N	Y	N	N	Y	N
An economic development plan	Y	N	N	N	N	N	N	N
An emergency response plan	Y	Y	Y	Y	Y	Y	Y	N
A post-disaster recovery plan	N	N	N	N	N	N	N	N
A post-disaster recovery ordinance	N	N	N	N	N	N	N	N
Real estate disclosure requirements	N	N	N	N	N	N	N	N

Table 3. 3 Fiscal Capability

Financial Resources	Jefferson County	Avera	Bartow	Louisville	Stapleton	Wadley	Wrens	Accessible or Eligible to Use (Yes/No)
Community Development Block Grants (CDBG)	Y	Y	Y	Y	Y	Y	Y	Y
Capital improvements project funding	Y	N	N	Y	N	N	Y	Y
Authority to levy taxes for specific purposes	Y	Y	Y	Y	Y	Y	Y	Y – Vote required

Financial Resources	Jefferson County	Avera	Bartow	Louisville	Stapleton	Wadley	Wrens	Accessible or Eligible to Use (Yes/No)
Fees for water, sewer, gas, or electric service	N	Y	Y	Y	Y	Y	Y	Y
Impact fees for homebuyers or developers for new developments/homes	N	N	N	N	N	N	N	N
Incur debt through general obligation bonds	Y	Y	Y	Y	Y	Y	Y	Y
Incur debt through special tax and revenue bonds	Y	Y	Y	Y	Y	Y	Y	Y – Vote required
Withhold spending in hazard-prone areas	N	N	N	N	N	N	N	N
Other Grants	Y	Y	Y	Y	Y	Y	Y	N

Table 3.4 Administrative and Technical Capacity

Staff/Personnel Resources	Jefferson County	Avera	Bartow	Louisville	Stapleton	Wadley	Wrens	Dept./Agency and Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Y	Y	Y	Y	Y	Y	Building Dept./ Code Enforcement/ Public Works CSRA RC
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Y	N	N	Y	N	Y	Y	Building Dept./ Code Enforcement
Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Y	N	N	Y	N	Y	Y	Public Works/CSRA RC Staff
Floodplain manager	N	N	N	N	N	N	N	Building Dept.
Surveyors	N	N	N	N	N	N	N	Contracted as needed

Staff/Personnel Resources	Jefferson County	Avera	Bartow	Louisville	Stapleton	Wadley	Wrens	Dept./Agency and Position
Staff with education or expertise to assess the community's vulnerability to hazards	Y	Y	Y	Y	Y	Y	Y	Public Safety/EMA
Personnel skilled in GIS and/or HAZUS	Y	Y	Y	Y	Y	Y	Y	CSRA RC Various
Emergency manager	Y	Y	Y	Y	Y	Y	Y	EMA
Grant writers	Y	Y	Y	Y	Y	Y	Y	CSRA RC

C. Community Mitigation Goals

Collectively, the jurisdictions reviewed the hazard profiles and the loss estimates information 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 historical hazard 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 achieve goals. All action steps should be 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 identify 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 which are put into practice to reduce the risk of destruction and casualties. Mitigation is generally split into two main types of activities: structural and non-structural. 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. The committee has identified both structural and non-structural mitigation measures to ensure that the community adequately addresses all relevant dam failure issues. Structural and non-structural actions are identified in Table 3.7.

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

Louisville, Wadley and Wrens 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:

- Currently Jefferson County as well as the cities of Bartow, Louisville, Stapleton, Wadley and Wrens have zoning ordinances, which offer groundwater protection and ensure best practices.
- Jefferson County has adopted a Wetlands Protection Ordinance.
- Louisville has adopted historic preservation ordinances.
- Jefferson County, Wrens and Louisville has adopted a Soil Erosion and Sedimentation Control Ordinance
- Jefferson County has adopted a Solid Waste Management Facility Ordinance.
- Jefferson County, Bartow, Louisville, Stapleton, Wadley and Wrens have flood plain ordinances.
- Louisville and Wrens have adopted zoning ordinances and subdivision regulations.

The *Jefferson County Joint Comprehensive Plan 2023-2028* was adopted by resolution by the Jefferson County Board of Commissioners and the City Councils of Avera, Bartow, Louisville, Stapleton, Wadley and Wrens in September 2023. 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 and each municipality. The joint comprehensive plan also examines existing land use and projects future land use.

iii. **Community Values, Historic & Special Considerations**

Historical-Cultural

There are four National Register of Historic Places in Jefferson County:

- **Cunningham Coleman House**, listed 1984, southeast of Wadley. An 1825 sand hills house type with Greek Revival details. Raised, weatherboard, two over four room central hall house plan of one and half stories. Representative of a middle-sized, antebellum cotton plantation and post-Civil War farm area known as "Cunningham Corner."

- **Jefferson County Courthouse**, listed 1980 in Georgia Courthouse Thematic NR nomination, built 1904, architect Willis Franklin Denny, builder F. P. Heifner. Style, Classical Revival. The courtroom was remodeled in 1980; Elevator added and new windows in 1990s. Features prominent domed clock tower and two-story pediment porticos supported by classical columns. State level of significance.

- **Louisville Commercial Historic District**, listed 1994. Includes 180 acres, 43 buildings, 1 structure (Old Market NR listed individually). Period of significance, 1750-1949. Architectural styles, Beaux Arts, Romanesque, Early Commercial. Includes Courthouse (NR thematic courthouse nomination). Extends four blocks NW to SE along Broad Street. The majority of buildings brick, typical of small commercial towns. Significant structures, post office designed by U.S. Supervising Architect Louis A. Simon, county jail, telephone exchange, former Baptist Church Sunday School, Jefferson Hotel, Abbot and Stone building, Planter's Cotton Warehouse, Pal Theater. Native Louisville architect Willis F. Denny designed three of the two-story commercial buildings. State level of significance.

- **Old Market House**, Louisville, built 1758. Constructed as a trading market pre-dating the city of Louisville. The open-air market is the only building of its kind still standing in Georgia and one of only a few such remaining in the United States. The market rests on a 24'-square foundation and features twelve heavy wooden piers supporting a pyramidal roof. A small cupola with pointed-arch gothic windows and vent openings rests atop the roof. The historic 1772 bell that hangs serves as a reminder of the gift that was intended for King Louis XVI but was stolen by a pirate ship before it found its way in Louisville's Market House. State level of significance.

Willis Franklin Denny II (1874-1905) was an important transitional figure in the development of Georgia architecture at the turn of the 20th century. A native of Louisville, he was one of the first trained architects in America. There are nine Willis Franklin Denny II buildings in Louisville that should be NR listed and noted for preservation opportunities. They are:

- J.D. Polhill Sr. House, 9th and Peachtree, (moved to rural Jefferson County)
- Ramsey-Smith-Ethridge House, 401 Broad
- Rhodes-Stone House, 707 Peachtree (owned by United Methodist Church)
- Abbott House, Mulberry and 8th
- Phillips-Seebach House, 206 West 7th (demolished in 1990)
- Wright-Livingston-Agel House, 208 East 8th
- Denny Building (three storefronts), Broad Street, NR listed in Commercial HD
- Enterprise Building, Broad Street, NR listed in Commercial HD
- Jefferson County Courthouse, Broad Street, NR listed

There is one residential NRHP listing located in Wadley. The Cunningham Coleman House, located southeast of Wadley, was listed on the National Register in 1984. This home is an 1825 sand hills house type with Greek Revival details. Potential National Register of Historic Places residential properties include:

- McDaniel-Little-Patterson House, 702 Mulberry, circa 1880
- Dixon-Cobb House, 718 Screven Street, circa 1880
- Little Brewton House, 403 Broad Street, built 1873
- Marion Little House, 401 Broad Street, built circa 1900
- Ramsey-Smith-Ethridge House, 33 West Broad, built late 1870's
- Abbot House, Mulberry and 8th, built pre-1860
- Sigmund Zacharias House, 115 8th street, built 1879 (owned by the Rollins)
- Austin House, 208 8th street, circa 1830 (oldest house in Louisville)

- Lowry-Edwards-Willie House, US 1, poet Harry Stillwell Edwards lived here with his son.

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Recreation

Jefferson County is home to a segment of the Ogeechee River. This 250-mile river runs through the center of Jefferson County and is the only major river in Georgia with no dam. The river serves many purposes including drinking water, wildlife habitat and recreation such as fishing and boating. The Ogeechee River has been designated as a protected river by the Georgia Department of Natural Resources and an Ogeechee River Corridor Protection plan was adopted by Jefferson County in 2000. The Ogeechee River Protection District includes the land within 100 feet, horizontally, on both sides of the river.

The Atlanta Journal/Constitution and The Macon Telegraph call Bartow the smallest town in America with a thriving community theater. But, in truth, the Schoolhouse Players have evolved into a regional performing group that draws its actors and technicians, as well as its large audiences, from a wide radius. The Players, known for their attention to sets, lighting, and costumes, present a full season of plays and musicals, as well as additional concerts, which range from classical to country.

Economic Drivers

Jefferson County offers a nationally favorable tax and a 100 percent Freeport inventory tax exemption for qualified companies. Under the Georgia Business Expansion Support Team (BEST) Act, qualified companies that expand in our state may be eligible for incentives to reduce costs and increase the bottom line.
The Development Authority of Jefferson County is a driving force in the success of business development here, working with existing and new businesses to ensure quick response time in developing training, infrastructure capacities, or distribution supports. The Development Authority and The Chamber of Commerce have developed strategic partner programs to support local businesses.
Jefferson County has:

- Metal fabrication cluster with excess water and treatment capacity
- Three industrial sites:
    - 353-acre industrial park adjacent to the airport
    - 650-acre park rail served
    - 170-acre industrial park
- Two airports
    - a 5,000-foot paved runway, perfect for corporate aircraft, at a regionally designated airport with terminal
    - a second airport with a 3,500-foot paved runway with plans to extend to a 5,000-foot runway

There is a network of well-maintained highways and airports, with quick access to one of the nation's largest seaports, links Jefferson County to world markets. US Highways 1 (expanding to four lanes), 88 (four lanes), 221 and 319 traverse Jefferson

County while Interstate 16 is just south and Interstate 20 to the north. These main routes are accented by seven different state highways.

Currently expanding airports in Louisville and Wrens service private planes with lighted runways and hangars. Commercial flights are easily accessible at Augusta Airport roughly 35 miles away and two hours away at Savannah International Airport and Atlanta's Hartsfield-Jackson Airport.

The existing Jefferson County business community is strong and diversified.
Major Industries: agriculture, aquaculture, timber, kaolin, and metal fabrication
Major Employers: Fulghum, Battle Lumber, ThermoKing, Glit/Microtron

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 used the STAPLEE worksheet to select and prioritize the most appropriate mitigation alternatives. This methodology requires that seven categories be considered when reviewing potential actions. This process helped ensure that the most equitable and feasible actions would be undertaken based on each jurisdictions capability. 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?
• It is 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 taken into account??
- 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 that Jefferson County together with Avera, Bartow, Louisville, Stapleton, Wadley and Wrens 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 time frames 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 exist.

Objective A4. Lessen the impact to existing buildings, critical facilities and infrastructure as a result of flooding.
Objective A5. Limit future development in flood prone areas.
Objective A6. Reduce the threat of water contamination caused by flooding.

B. Dam Failure Action Plan

Dam failure mainly affects areas that are downstream of the event. Further study of this type event is required to determine where property damage and loss of life has the greatest potential to occur. Critical facilities and vulnerable populations are located in all jurisdictions as well as the unincorporated areas of the County. As a result, any mitigation steps taken related to dam failure events should be undertaken on a countywide basis and specifically include all incorporated jurisdictions.

Objective B1. Identify at risk population and properties.
Objective B2. Develop proposal to regulate protective measures for dam breach zones

C. Drought Action Plan

As indicated in Chapter II, Section III, 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 84.5% 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 C1. Ensure that there is an adequate water supply during periods of drought.
Objective C2. Educate citizens on water conservation issues.

D. Wildfire Action Plan

As indicated in Chapter II, Section IV, wildfires have the potential to cause costly damage in Jefferson 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 D1. Ensure that adequate fire protection is available.
Objective D2. Reduce threat of wildfire occurrence.
Objective D3. Increase public awareness of wildfire dangers.

E. Severe Weather (Tornados, Tropical Storms, Thunderstorm Winds, Lightning, Hail)

As with many Georgia communities, if a tornado or tropical storm were to strike Jefferson 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 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 Jefferson County as a result of a severe weather event. As indicated in Chapter II, Section V, of all of 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 E1. Minimize damage to property from severe weather events.

Objective E2. Minimize damage to public buildings and critical facilities to ensure continual operations of vital services.

Objective E3. Protect vulnerable populations from the effects of severe weather events.

Objective E4. Educate the public including citizens and business owners on disaster preparedness and safety.

F. Winter Storms Action Plan

Within Jefferson 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, Jefferson County and other southeastern communities must be prepared for the damage caused by winter storms. The fact that winter storms hit Jefferson County infrequently results in other problems, such as lack of equipment and supplies to combat treacherous winter storm conditions. In Jefferson County, the formation of ice on roads and bridges, tree limbs, and power lines is the cause of most damage. In Chapter II, Section VI 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 F1. Educate the public on preparedness and safety issues for winter storm events.

Objective F2. Prevent property damage as a result of a winter storm event.

Objective F3. Minimize power outages during winter storms.

G. Earthquake Action Plan

As indicated in Chapter II, Section VII. Earthquake conditions have the potential to affect all of Jefferson County. Critical facilities and vulnerable populations are located in the County and the City. As a result, any mitigation steps taken related to an earthquake event should be undertaken on a countywide basis and specifically include all incorporated jurisdictions.

Objective G1. Minimize damage to property from earthquake events.

Objective G2. Minimize damage to public buildings and critical facilities to ensure continual operations of vital services.

Objective G3. Educate the public on preparedness and safety issues for earthquake events.

H. All Hazard Action Steps

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 as a result of all hazards to ensure a continuation of all vital services.

Objective H4. Provide adequate notification to citizens of Jefferson 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 Jefferson County.

Objective H6. Guarantee that all Emergency Response Plans are up to date and adequate to meet the needs of citizens of Jefferson County.

Objective H7. Ensure all emergency shelters are ready to meet the needs of the population of Jefferson County and all jurisdictions.

Objective H8. Provide the citizens of Jefferson County educational information on Emergency Preparedness.

Objective H9. Provide the citizens of Jefferson County with accurate and timely information pertaining to Emergency Preparedness.

Objective H10. Collect accurate and complete data pertaining to hazard events within Jefferson County and all jurisdictions.

SECTION III. MITIGATION ACTIONS

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural / Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Timeframe	Status	Priority
1.	Investigate ways to increase Participate in the CRS	Jefferson County, Bartow, Louisville, Stapleton, Wadley and Wrens	BOC/City Councils	Flood	A1, A2	1, 2, 4, 5	Non-Structural	Staff Time	General Funds	3 years	Stalled due to funding	Low
2.	Continue to assess stormwater runoff.	Jefferson County/All Municipalities	Public Works	Flood	A5, C2	2, 6	Non-Structural	Staff time	General Funds	1year 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.	Jefferson County/All Municipalities	BOC/City Council/ Public Works	Flood/ Drought	A3,	2, 6	Structural	2,000,000	CDBG, USDA, EPA, DNR, FEMA General Fund,	1year and Continual	Ongoing As funding becomes available	High
4.	Clear run-off and water retention ditches.	Jefferson County/All Municipalities	Public Works/Road Dept.	Flood	A5	2, 1	Structural	Staff Time	General Funds	1year and Continual	Ongoing As part of road dept. work duties	High
5.	Promote the preservation of areas in and around watercourses.	Jefferson County, Wadley, Louisville, Wrens	BOC/City Council/	Flood	A6	1, 2, 4, 5	Non-Structural	Staff time	CDBG, USDA, EPA, DNR	2 years	Ongoing	High
6.	Add greenspace to known flood prone areas.	Jefferson County, Louisville, Wadley and Wrens	BOC/City Council/	Flood	A6	1, 2, 4, 5	Non-Structural	Staff time	CDBG, USDA, EPA, DNR	1year and Continual	Ongoing	Medium
7.	Evaluate existing water systems upgrade as needed	All Municipalities	Public Works	Flood/ Drought/ Wildfire	A7, C1	1, 2, 6	Structural	1,000,000	General Fund, CDBG, USDA, EPA, DNR	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)	Timeframe	Status	Priority
8.	Investigate methods to reduce non-point source pollution.	Jefferson County	Public Works	Flood	A1	1, 2, 5	Non-Structural	500,000	USDA, EPA, DNR	2 years	Ongoing Stalled as no projects have been identified	Low
9.	Promote increased surface water usage and surface artesian flow for irrigation.	Jefferson County/All Municipalities	BOC/City Councils/ Public Works	Drought	C1, C2	2, 3, 4	Structural/ Non-Structural	Staff time	USDA, EPA, DNR, General Funds	2 years and Continual	Ongoing	Medium
10.	Enact a program to educate the residents about water conservation issues	Jefferson County/All Municipalities	BOC/City Councils	Drought	C1, C2	1, 3	Non-Structural	$2,000.00	USDA, EPA, DNR, General Funds	1year and Continual	Ongoing	High
11.	Increase public awareness of watering restrictions and bans.	Jefferson County/All Municipalities	BOC/City Councils	Drought	C1, C2	1, 3	Non-Structural	Staff Time	General Funds	1year and Continual	Ongoing	High
12.	Develop a public awareness campaign to promote water-saving campaigns (i.e. low-flow water saving devices)	Jefferson County/All Municipalities	BOC/Public Works	Drought	C1, C2	1, 3	Non-Structural	Staff Time	Staff Time	1year and Continual	New	High
13.	Continue training of all firefighters to include wildland fire training.	Jefferson County/All Municipalities	BOC/City Councils /EMA	Wildfire	D1	1, 2	Non-Structural	50,000.00	General Funds	1year and Continual	Ongoing	High
14.	Seek funding for needed firefighting equipment	Jefferson County/All Municipalities	Public Works	Wildfire	D1	1, 2	Non-Structural	2,000,000	General Funds, FEMA	Continual	Ongoing	High
15.	Inventory and replace or install more fire hydrants as needed.	Jefferson County/All Municipalities	BOC/City Council/ Public Work's	Wildfire	D1	1, 2	Structural	150,000	General Funds, FEMA	1year and Continual	Ongoing	High
16.	Seek funding for more fire truckers and tankers for local fire departments.	Jefferson County/All Municipalities	BOC	Wildfire	D1	1, 2	Non-Structural	$750,000	General Funds, FEMA	1year 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)	Timeframe	Status	Priority
17.	Seek funding for communication towers and voice repeater systems.	Jefferson County/All Municipalities	EMA/ Police/ Sheriff	All hazards	H1, H9	1	Structural	$1,000,000	General Fund, FEMA, CJCC, JAG, USDA, DOJ	Continual	Ongoing	High
18.	Enforce defensible space (30-ft minimum setbacks) between buildings and flammable brush and forestland where possible.	Jefferson County/All Municipalities	Road Dept.	Wildfire	D2, D3	1, 2, 3	Structural	Staff Time	General Funds, FEMA	Continual	Ongoing	Medium
19.	Continue following GFC service of construction and maintenance of firebreaks around forests and structures, along abandoned roadbeds.	Jefferson County/All Municipalities	BOC/City Councils/ Road Dept.	Wildfire	D2, D3	1, 2, 3	Non-Structural	Staff Time	General Fund	Continual	Ongoing	High
20.	Strictly follow GFC guidelines for control burns and permits.	Jefferson County/All Municipalities	BOC/City Councils/ Road Dept.	Wildfire	D2, D3	1, 2, 3	Non-Structural	Staff Time	General Funds,	Continual	Ongoing	High
21.	Implement the Firewise Community Initiative where appropriate	Jefferson County/All Municipalities	BOC/City Councils/ EMA	Wildfire	D2, D3	1, 2, 3	Non-Structural	$25,000.00	General Funds, GFC	3 years	Stalled as no communities have been identified to participate	Medium
22.	Improve public awareness of wildfire techniques and awareness of wildfire dangers.	Jefferson County/All Municipalities	BOC/City Councils/ EMA	Wildfire	D2, D3	1, 2, 3	Non-Structural	$25,000.00	General Funds	2 years and Continual	Ongoing	High
23.	Adopt Building Codes	Jefferson County, Avera, Bartow, Stapleton	BOC/City Councils/	Flood, Severe Weather, Winter Storm	A5, A6, E1, E2	1, 2, 4, 6	Structural/ Non-Structural	Staff Time	General Fund	3 years	New	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural / Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Timeframe	Status	Priority
24.	Adopt Zoning Regulations	Jefferson County, Avera, Bartow, Stapleton, Wadley	BOC/City Councils/	Flood, Severe Weather, Winter Storm	A5, A6, E1, E2	1, 2, 4, 6	Structural/ Non-Structural	Staff Time	General Fund	3 years	Ongoing	High
25.	Equip all county and city recreation parks with adequate early severe weather warning and lightning detection devices.	Jefferson County/All Municipalities	EMA/Fire Depts.	Severe Weather, Lightning	E1, E2. E3	1, 2, 6	Structural	150,000	General Funds, FEMA	2 years	Ongoing	High
26.	Inspects public buildings and critical facilities and retrofit to reinforce windows, doors, and roofs as needed	Jefferson County/All Municipalities	Public Works/ Fire Depts.	Severe Weather, Winter Storms	E1, E2. E3	1, 2, 6	Structural	Staff Time	General Funds, FEMA	3 years	Ongoing	Medium
27.	Enforce building codes for all new buildings and critical facilities.	Jefferson County/All Municipalities	EMA/Fire Depts.	Flood, Severe Weather, Winter Storm	A5, A6, E1, E2	1, 2, 6	Structural/ Non-Structural	Staff Time	General Funds, FEMA	Continual	Ongoing	High
28.	Install lightning rods in high value critical facilities.	Jefferson County/All Municipalities	BOC/City Councils/	Severe Weather, Lightning	E1, E2. E3	1, 2, 6	Structural	100,000	General Funds, FEMA	2 years	New	High
29.	Review current Emergency Response Plan and update when needed.	Jefferson County EMA	BOC/City Councils/ EMA	All hazards	H6, H8	1, 2, 3	Non-Structural	Staff Time	General Funds	2 years and Continual	Ongoing	High
30.	Review current evacuation plans paying particular attention to vulnerable populations and update as needed.	Jefferson County EMA	BOC/City Councils/ EMA	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	H5, H8	1, 2, 3	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)	Timeframe	Status	Priority
31.	Develop a public awareness program about the installation of lightning grounding systems on critical infrastructure, residential and business properties.	Jefferson County EMA	BOC/City Councils/ Recreation Dept.	Severe Weather, Lightning	E4	1, 2, 3	Non-Structural	Staff Time	General Funds	2 years	Stalled due to lack of staff	High
32.	Install generators where needed.	Jefferson County/All Municipalities	EMA/ Fire Code Enforcement and Building Inspection	All hazards	H3	1, 2, 3, 6	Structural/ Non-Structural	$400,000	General Funds, FEMA	1 year and continual	Ongoing As funding becomes available	High
33.	Seek funding to ensure all current and future emergency shelters have back-up generators.	Jefferson County/All Municipalities	Code Enforcement and Building Inspection	All hazards	H7	1, 2, 3, 6	Structural/ Non-Structural	$500,000	General Funds, FEMA	3 years	Ongoing As funding becomes available	High
34.	Educate the public on shelter locations and evacuation routes	Jefferson County/All Municipalities	EMA/ Code Enforcement and Building Inspection	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	H8, H9	3	Non-Structural	Staff Time	General Funds	1 year and continual	Ongoing	High
35.	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.	Jefferson County/All Municipalities	EMA	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	H8, H9	3	Non-Structural	$10,000	General Funds, FEMA	2year 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)	Timeframe	Status	Priority
36.	Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after.	Jefferson County/All Municipalities	EMA/BOE	Winter Storm	F1	3	Non-Structural	$25,000	General Funds	2 year and continual	Ongoing	High
37.	Review current codes to comply with and enforce the State building code with criteria for design snow load for buildings and structures.	Jefferson County/All Municipalities	BOC/ City Councils/ EMA	Winter Storm	F2	1, 2, 3,	Non-Structural	Staff Time	General Funds	2 years	Ongoing	low
38.	Create a data base to record hazard event information.	Jefferson County/All Municipalities	EMA	All hazards	H10	1, 2, 3,	Non-Structural	Staff Time	General Funds	2 years	Stalled due to lack of staff	Medium
39.	Conduct dam breach analysis to identify assets and population at risk in the event of a failure.	Jefferson County, Wadley	EMA	Dam Failure	B1, B2	1, 2,	Non-Structural	250,000	General Funds, DNR	3 years	Stalled due to funding	Medium
40.	Draft ordinance prohibiting development in dam breach zone.	Jefferson County/All Municipalities	BOC/ City Councils/	Dam Failure	B2	1, 2, 4	Non-Structural	Staff Time	General Funds	2 years	In progress	Low
41.	Install dam failure alert systems.	Jefferson County, Wadley	BOC/ City Councils/ EMA	Dam Failure	H4	1, 2, 6	Structural	$100,000	General Funds, DNR	4 years	Ongoing As funding becomes available	Medium

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural / Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Timeframe	Status	Priority
42.	Inventory existing road equipment and purchase needed equipment to maintain roads before, during and after a hazard event.	Jefferson County/All Municipalities	BOC/ City Councils/ EMA	Flood, Severe Weather, Winter Storm	H2	1, 2	Non-Structural	1,500,000	General Funds, FEMA	Continual	Ongoing As funding becomes available	Medium
43.	Develop coordinated management strategies for deicing, snow plowing, and clearing roads of fallen trees and debris	Jefferson County/All Municipalities	BOC/ City Councils/ Planning and Zoning	Flood, Severe Weather, Winter Storm	H2	1, 2	Non-Structural	Staff Time	General Funds	2 years	Stalled due to staff time	High
44.	Promote the construction of safe rooms in shelter areas and in public buildings.	Jefferson County/All Municipalities	BOC/ City Councils/ Road Dept.	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	H3	1, 2, 6	Structural	$500,000	General Funds, FEMA	4 years	Ongoing As funding becomes available	Medium
45.	Update 911 equipment as needed.	Jefferson County/ EMA	BOC/ City Councils/ Road Dept./EMA	All hazards	H1, H3	1, 2, 6	Structural	$2,000,000	General Funds, FEMA	Continual	Ongoing As funding becomes available	High
46.	Request that all new education facilities be designed to serve as public shelters for emergency purposes.	Jefferson County	BOC/ EMA	All hazards	H7	1, 2, 6	Non-Structural	Staff Time	General Funds	Continual	Ongoing. No new schools have been designed	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural / Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Timeframe	Status	Priority
47.	Promote and participate in the following American Red Cross Programs • Disaster Resistant Neighborhoods Program • Business and Industry Preparedness Seminar • Community Disaster Education Preparedness presentations	Jefferson County/All Municipalities/ EMA	EMA/ Sheriff	All hazards	H4, H8, H9	1, 2 ,3	Non-Structural	25,000	General Funds, FEMA	Continual	Ongoing	Medium
48.	Continue update of EMA website with information pertaining to Emergency Preparedness.	Jefferson County EMA	EMA/	All hazards	H4, H5, H6, H7, H8, H9.	1, 2 ,3	Non-Structural	Staff Time	General Funds	Continual	Ongoing updated as needed	High
49.	Work with local cable and radio providers to enhance and broadcast public education on Emergency Preparedness.	Jefferson County EMA	BOC/ City Councils/ BOE	All hazards	H8,H9	1, 2 ,3	Non-Structural	Staff Time	General Funds	1 year and Continual	Ongoing	High
50.	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.	Jefferson County/All Municipalities	BOC/ City Councils/	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	H9, H10	1, 2, 6	Non-Structural	50,000	General Funds, FEMA	1 year 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)	Timeframe	Status	Priority
51.	Apply for funds for one portable generators for lift stations and wells	Wrens	BOC/ Road Dept.	All hazards	H3	1, 2, 3, 6	Structural/ Non-Structural	140,000	General Funds, FEMA	6 months	Ongoing As funding becomes available	High
52.	Continue update of EMA website and Facebook page with information pertaining to Emergency Preparedness.	Jefferson County EMA	EMA	All hazards	H4, H5, H6, H7, H8, H9.	1, 2 ,3	Non-Structural	Staff Time	General Funds	Continual	Ongoing	High
53.	Apply for funds for generators critical facilities such as city hall, police station, fire station, wells	Wadley	BOC/ City Councils/	All hazards	H3	1, 2, 3, 6	Structural/ Non-Structural	275,000	General Funds, FEMA	Continual	Ongoing As funding becomes available	High
54.	Apply for funds for generator at Hospital	Jefferson County	BOC/ City Councils/	All hazards	H3	1, 2, 3, 6	Structural/ Non-Structural	140,000	General Funds, FEMA	Continual	Ongoing As funding becomes available	High
55.	Apply for three stationary generators for tow lift stations and the Leisure Senior Center for use as a shelter.	Jefferson County EMA	EMA/BOC	All hazards	H3	1, 2, 3, 6	Structural/ Non-Structural	300,000	General Funds, FEMA	Continual	Ongoing As funding becomes available	High
56.	Conduct a survey to determine structural capability of critical facilities to function after a seismic event. Retrofit as needed.	Jefferson County/All Municipalities/ EMA	BOC/ City Councils/	Earthquake	G1	3,6	Structural	Staff Time	General Funds	2 years	New	High
57.	Distribute flyers and pamphlets to citizens and businesses on earthquake preparedness.	Jefferson County/All Municipalities/ EMA	BOC/ City Councils/	Earthquake	G1, G2	1, 2,3	Non-Structural	Staff Time	General Funds	1 year	New	High

Action #	Mitigation Action and Description	Jurisdiction	Implement Agency	Hazards Addressed	Objective Supported	Goal	Structural / Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Timeframe	Status	Priority
58.	Conducts earthquake scenarios to estimate potential loss of life and injuries, the types of potential damage, and existing vulnerabilities.	Jefferson County/All Municipalities/ EMA	BOC/ City Councils/	Earthquake	G1, G2	1, 2,3,6	Non-Structural	Staff Time	General Funds	1 year	New	High
59.	Contract with the Regional Commission to create a Flood Mitigation Assistance Plan.	Jefferson County	RC, BOC, EMA	Flood	A6	1, 2, 4, 5	Non-Structural	Unknown	General Funds	2 years	Stalled due to funding	Low

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 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 and all jurisdictions are aware of the need to develop communication capabilities that will serve their County.

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:

Flood

- Determine the elevation of critical facilities in known flood areas and seek funding to relocate if necessary. Completed.
- Update Floodplain Maps. FEMA updated all maps in 2010.
- Review and adopt flood plain ordinances as needed. Completed for all jurisdictions except Avera who has no floodplains
- Review set back requirements from top of banks of creeks and from top of banks of major rivers. Completed set back requirements are consistent with the DNR guidelines.
- Review existing comprehensive, development and land use plans to address flood prone areas. This was completed during the 2018-2028 Comprehensive Plan Update.
- Install measuring devices in creeks, ponds, etc. to provide a warning when water levels become dangerously high. All have monitors.
- Identify property owners who are located in areas continually subject to flooding and relocate or mitigate. There are no repetitive flood properties.
- Cap wells not in use and increase wellhead waterproofing. Deleted deals with private property.
- Ensure well head elevations are above known flooding levels. Handled by Health Dept.
- Run HAZUS scenarios once the software is updated and compatible to RC ArcGIS 10.2 and updated estimated losses. Completed

Drought

- Identify and inventory all vulnerable agricultural properties to include livestock and develops a protective action plan.
- Study the range of federal support programs available to assist Jefferson County's agriculture community.
- Water Use Ordinances was removed from the plan. All water departments have adopted GA EPD guidelines.
- Seek funding for wells that have gone dry and been removed. Funding does not exist for this activity as a grant only a loan and must be applied for by private citizens.

Wildfire

- Seek funding for reverse 911 was removed from the plan as technology is obsolete and the county has implemented CODE RED

Severe Weather

- Seek funding for reverse 911 was removed from the plan as technology is obsolete and the county has implemented CODE RED
- Review building codes for proper wind strength and safety regulations and for consistency with state and federal regulations. Building Codes are in compliance.
- Provides NOAA weather radios to elderly and handicap populations. Promoting Code Red.
- 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." Removed as no funding exist for this activity.
- Inspect all county and municipal critical facilities for proper grounding. Completed
- Install surge protectors on critical facilities' electronic equipment in essential county and city facilities. Completed.
- Provide boat owners with safety tie down procedures with boat registration. Removed. Information to boating safety will be placed on the EMA website and Facebook page as an alternative.

Winter Weather

- Seek funding for reverse 911 was removed from the plan as technology is obsolete and the county has implemented CODE RED
- Inspect power lines to determine if trees need to be trimmed or cut down. This is performed by the electric companies. This action step was deleted.
- Purchase a portable sewer transfer pumping unit. Was removed it is more cost efficient to rent one when needed.
- Herman Nelson Warming System AIR HEATER w/TRAILER Was removed it is not cost efficient

E. Unchanged and/or Continual Action Steps: The flowing mitigation steps remain in the plan. Based on the STAPLEE Criteria these unchanged action steps were found to be relevant in limiting the damage to people and property from a natural hazard. All action steps have been reformatted to meet the action step criteria established by GEMA and

FEMA after the original plan was approved. The new table format from GEMA Plan Update Guidance Template 2012 has been used to organize action steps. STAPLEE worksheet can be found in Appendix D for each action step.

Flood:

- Continue to assess storm water run-off.
- Seek funding to construct more storm water retention facilities, storm drain improvements and channel improvements to protect existing and new developments.
- Seek funding to increase size of retention basins and run off canals.
- Recommend that run-off and water retention ditches be cleared.
- Adopt ordinances to 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.
- Investigate methods to reduce non-point source pollution.
- Seek funding for communication towers and voice repeater systems. (Moved to all hazards.)

Drought

- Evaluate existing water systems and upgrade as needed.
  - Wadley made water system improvements for $550,000
  - Louisville completed a $1.7 million upgrade the water treatment plant, added a new well and rehabbed the water tank at the High School.
- Increase public awareness of watering restrictions.
  - All cities post water restrictions.
- Educate citizens on water conservation.
- Promote increased surface water usage for irrigation.
- Promote usage of surface artesian flow for irrigation.
- Educate citizens on water conservation issues.

Wildfire

- Seek funding to install more fire hydrants.
  - Wrens installed 19 new hydrants for 47,500.
  - Louisville installed 5 new hydrants for $12,500.
  - Wadley repaired 3 hydrants for $2,025.
- Review previous firefighter training and implements a schedule for the ongoing training of all firefighters to include wildland fire training.
  - All paid firefighters have had 240 hours of annual training.
  - All volunteer firefighters have completed annual fire training requirements.
- Seek funding for needed firefighting equipment.
  - Avera purchased 10 sets of turnout gear for $32,000
  - Wadley - Number and cost of turnout gear - Pants 10, Coats 10, Helmets 11, Hoods 25, Boots 11 pair, Gloves 20 pair, Shirts 17, Belts/Buckles 13, Suspenders 4, Face Shields 10, Hi Viz Vests 2, Flashlights/Baton 29, Parka 1, Tags 17, Patches 100, Escape Knives 17, Recoil Rope 1, Total Gear Cost $34,042.13

  - Louisville purchased 10 sets of gear cost $17,000
  - Jefferson County purchased three sets of turnout gear for 4500.00
- Upgraded water lines to meet FEMA recommendations for firefighting and install fire hydrants.
- Seek funding for more fire tankers (2000 to 3000 gallons) for local fire departments.
  - Louisville purchased 2 used brush trucks - Cost $ 26,000 and a new truck with equipment for $325,000
- Seek funding for communication towers and voice repeater systems. (moved to all hazards)
- Increase public awareness of wildfire dangers by publishing articles in the local newspaper and providing bulletins to local churches and the schools.
- Continue hazardous fuel reduction by prescribed burning, mechanical or chemical treatment carried out and promoted by GFC guidelines.
- Continue GFC service of construction of firebreaks around forests and structures.
- Maintain fuel breaks along abandoned road beds.
- Recommend a defensible space (30-ft minimum setbacks) between buildings and strictly follow GFC guidelines for control burns and permits.
- Educate public during periods of drought; ask them to hold off on outside burning.
- Increase public awareness of wildfire dangers around the home and community, such as lighted matches, cigarettes, trash, and the process for obtaining burn permits by publishing articles in the local newspaper and providing bulletins to local schools.
- Participate in the Firewise Community Initiative.
- Continue GFC service of construction of firebreaks around forests and structures.
- Maintain fire breaks along abandoned road beds.

Severe Weather

- Review building codes for proper wind strength and safety regulations and for consistency with state and federal regulations.
- Inspect public buildings and critical facilities and retrofit to reinforce windows, doors, and roofs as needed.
- Seek funding for communication towers and voice repeater systems (moved to all hazards).
- Review current evacuation plans paying particular attention to vulnerable populations and update as needed (moved to all hazards).
- Review and current Emergency Response Plan and update when needed (moved to all hazards).
- Install generators where needed (moved to all hazards).
- Install generators on all new critical facilities (moved to all hazards).
- Seek funding to ensure all current and future emergency shelters have back-up generators (moved to all hazards).
- Educate the public on shelter locations and evacuation routes (moved to all hazards).

- Seek funding for communication towers and voice repeater systems (moved to all hazards).
- Request that all new education facilities be designed to serve as public shelters for emergency purposes (moved to all hazards).
- 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 severe event weather.
    - The EMA has set up a Facebook with educational information
- Promote and participate in the following American Red Cross Programs
    i. Disaster Resistant Neighborhoods Program (educating communities)
    ii. Business and Industry Preparedness Seminar (educating businesses on business continuity planning)
    iii. Community Disaster Education Preparedness presentations (educating adults, children and families)

Winter Weather

- Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after the winter storm event.
- Seek funding for communication towers and voice repeater systems (moved to all hazards).
- Road maintenance equipment.
- Inventory and assess generator needs at critical facilities and install generators where needed.
- Install generators where needed (moved to all hazards)
    - Avera installed a generator for $10,000
    - Wadley purchased 4 generators with FEMA grant for $188,720.00
    - Louisville installed two Generators for WPCP for 150,000 and four 4 Generators installed 2018 City Water treatment Plant, High School pump station, and two sewer lifts stations. Cost $ 191,622.09.
    - Bartow wired Sewer lift Stations wired for emergency power---$13,000.00 and installed a generator for 1,500.00

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 I. 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: Jefferson County Emergency Management Agency was responsible for overseeing the original planning process and the plan update. Facilitation of the planning process was conducted by the Central Savannah River Area Regional Commission. The Jefferson County Board of Commissioners has authorized the submission of this plan to both GEMA and FEMA for their respective approvals. The Jefferson County Board of Commissioners and the City Councils of Avera, Bartow, Louisville, Stapleton, Wadley and Wrens have formally adopted this plan after approval from GEMA and FEMA.

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 Jefferson 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 jurisdiction. 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 should 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 and 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 would receive 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 the update to their Joint Comprehensive plan in 2023. The 2019 PDM plan was reviewed to determine if any of the mitigation activities need to be added to the above-mentioned document. Jefferson County along with all six jurisdictions work jointly to produce these planning documents.

The Joint Comprehensive Plan is due for an update in 2028. The RC facilitates the planning process for both documents and updates both plans. Jefferson County takes the lead and all jurisdictions must participate. This Plan will be reviewed by Jefferson County along with all six jurisdictions. 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 update as needed. In addition, relevant sections of the 2019 plan were included in the revision of the Local Emergency Operations Plan in 2018. This hazard plan update will also be reviewed in the next update of the LEOP.

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

To facilitate inclusion of this Plan, the Jefferson County Commission and all cities will provide a copy of this Plan to the persons and/or committees responsible for writing and updating plans.

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, Jefferson County is required to review the PDM 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 which will include a schedule, timeline, and a list of the agencies or organizations participating in the plan revision. Jefferson 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
Jefferson County	Emergency Management Director	Annually
Avera	City Official	Annually
Bartow	City Official	Annually
Louisville	City Administrator	Annually
Stapleton	City Official	Annually
Wadley	City Official	Annually
Wrens	City Administrator	Annually

D. Timeframe: The committee has set the first Thursday of every October 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: Jefferson County is committed to having active public participation during reviews and updates of the PDM Plan. Public participation will follow the guidelines set forth in 44 CFR 201.6. Future public involvement of the community will be more stringent. The original method was not as successful as anticipated in ensuring community involvement. Two weeks before the annual April review meeting, a notice will be published in the legal organ of Jefferson 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 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 first Thursday of every October. The EMA Director will ensure the revised plan is presented to the Jefferson County Board of Commissioners and all jurisdictions 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 the Georgia Emergency Management Agency and the Federal Emergency Management Agency for their review and coordination.

Chapter V. Conclusion

SECTION IV. Summary

Through the update process of this plan, Jefferson 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 as a result 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, Jefferson 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 the first and last meetings were advertised in *The Jefferson Reporter*, providing Jefferson 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 Jefferson 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 Jefferson County Pre-Disaster Hazard Mitigation Planning Committee is to "*Make the citizens, businesses, communities and local governments of Jefferson 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 Jefferson 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. In an effort 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
https://sheldus.asu.edu/SHELDUS/
National Inventory of Dams http://crunch.tec.army.mil/nid/webpages/nid.cfm
cNew 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, 2017 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
Jefferson County, Avera, Bartow, Louisville, Stapleton, Wadley and Wrens
Jefferson County Board of Education
Jefferson County Hospital
Jefferson County Tax Assessor

APPENDICES

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

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

II. Hazard B– Dam Failure
   a. Description
   b. Data– GEMA Critical Facility Inventory Report
   c. Maps

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

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

V. Hazard E – Severe Weather, Including Tornados, Tropical Storms, and Thunder Storms
   a. Description
   b. Data– GEMA Critical Facility Inventory Report
   c. Maps

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

VII. Hazard F – Earthquake
   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. Community Information

Appendix C –Planning documents

I. Executive Summary Local Emergency Operations
II. Executive Summary GEMA State Emergency Operations

III. Hazard Risk Analysis
IV. Flood Insurance Study
V. Community Wildfire Protection Plan
VI. Timber Impact Assessment GFC
VII. 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 relatively flat lands that border streams and rivers that are normally dry, but are covered with water during floods. 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 in order to construct a building, then valuable water storage areas and recharge areas are lost. This causes unnecessary flooding in previously dry areas and can damage buildings or other structures.

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 period can result in flash flood conditions. A small amount of rain can also result in floods in locations where the soil is saturated from a previous wet period or if the 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 in that water runoff is greater in areas with steep slopes and little or no vegetation.

While severe flooding within Jefferson County is a relatively infrequent event. The county has 54 streams/rivers, 39 reservoirs and three lakes which makes the potential for flooding significant. There have been eight flooding events recorded in the last 89 years. These events resulted in school closings, roads washing out and $2.1 million in property damages. The flood of 1990 also caused a dam failure. The Jefferson County Hazard Frequency table calculates a 9.47% chance of an annual flooding event. Hazard frequency tables can be found in Appendix D for all jurisdictions. Based on tax data, parcel and flood maps all or a portion of 263 known structures/properties valued at approximately $10.2 million and a population of 397 located in known floodplains.

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
1st Baptist Church Evac Center	Jefferson County	0	3500000	2024		Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Important, Special Consideration	5	0
Carver Elementary	Jefferson County	0	12750000	2024	510000	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	292	0
Choices Academy	Jefferson County	0	15250000	2024		Education, Education, K - 12, K - 12		250	
Hardeman Building (Swann)	Jefferson County	0	250000	2024	17000	Medical, Medical, EMS, EMS	Historic Consideration, Important, Special Consideration	1	0
JC Building Department	Jefferson County	0	51090	2024	17500	Government, Government, Water/Sewer, Water/Sewer	Important	3	
JC Radio Tower	Jefferson County	0	27885	2024	8000	Government, Government, Water/Sewer, Water/Sewer	Essential		
Jefferson County Library	Jefferson County	0	66085	2024	848000	Education, Education, Library, Library	Important	10	0

Jefferson County Chamber of Commerce/Murphy House	Jefferson County	0	361433	2024	122700	Law Enforcement, Law Enforcement, Jails, Jails	Historic Consideration, Important	8	0
Jefferson County Commissioners Office/Long House	Jefferson County	0	339300	2024	110300	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	30	0
Jefferson County Courthouse	Jefferson County	0	5147708	2024	125000	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Historic Consideration	25	
Jefferson County Leisure Center	Jefferson County	0	586170	2024	86000	Government, Government, Non-Profit, Non-Profit	Essential, Special Consideration, Vulnerable Population	75	0
Jefferson County Magistrate	Jefferson County	0	24001242	2024	8400	Law Enforcement, Law Enforcement, Court House, Court House	Essential	20	0
Jefferson County Middle School	Jefferson County	0				Education, K - 12		500	
Jefferson Hospital	Jefferson County	0	97000000	2024		Medical, Medical, Hospital, Hospital	Essential, Lifeline, Vulnerable Population	200	150

Louisville Academy Elementary	Jefferson County	0	15250000	2024	610000	NGO, NGO, Water/Sewer, Water/Sewer	Economic Assets, Essential, Vulnerable Population	568	0
Louisville EMS/Morgue	Jefferson County	0				Emergency Services, EMS		30	10
National Guard Equipment Shed 1	Jefferson County	0	292900	2024		Emergency Services, Emergency Services, EMA, EMA	Essential		
National Guard Equipment Shed 2	Jefferson County	0	338500	2024		Emergency Services, Emergency Services, EMA, EMA	Essential		
National Guard Garage (Road Dept)	Jefferson County	0	461800	2024	209000	Emergency Services, Emergency Services, EMA, EMA	Essential		
National Guard Shop	Jefferson County	0	470400	2024	470400	Emergency Services, Emergency Services, EMA, EMA	Essential		
Old County Jail/IT/Purchasing	Jefferson County	0	500000	2024	28000	Law Enforcement, Law Enforcement, Jails, Jails	Essential, Historic Consideration	1	0

Physicians Health Group Wrens	Jefferson County	0	1015350	2024	500000	Education, Education, Private, Private	Essential, Important	20	
Tax Commissioners Office	Jefferson County	0	825500	2024	323000	Government, Government, Government Offices, Government Offices	Essential	20	
Wrens Elementary	Jefferson County	0	20500000	2024	820000	NGO, NGO, Water/Sewer, Water/Sewer		637	0
Wrens Middle School (vacant)	Jefferson County	0	17000000	2024	680000	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	0	0
25		25	$ 215,985,363.00		$ 5,493,300.00			2695	160
Hillcrest Station	Jefferson County	1	45700	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
JC Fire TowerShop/Supply Building	Jefferson County	1	241236	2024	9800	Government, Government, Water/Sewer, Water/Sewer	Essential	4	
JC Recreation Dept	Jefferson County	1	1300621	2024	29600	Government, Government, Water/Sewer, Water/Sewer	Important	4	

Jefferson Co. Correction Facility	Jefferson County	1	5261231	2024	833800	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	200	200
Jefferson Co. Law Enforcement Center	Jefferson County	1	8041785	2024	1139700	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	225	225
Jefferson County Armory Transit EMA	Jefferson County	1	2380171	2024	724500	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	10	4
Jefferson County Bus Shop	Jefferson County	1	750000	2024	140000	Medical, Medical, Hospital, Hospital	Important	5	0
Jefferson County Health Dept	Jefferson County	1	841815	2024	191700	Education, Education, Private, Private	Essential	20	
Jefferson County High School	Jefferson County	1	55000000	2024	2200000	Medical, Medical, Hospital, Hospital	Economic Assets, Essential, Vulnerable Population	937	0
Jefferson County Landfill (New)	Jefferson County	1	1062166	2024	363200	NGO, NGO, Water/Sewer, Water/Sewer	Hazardous Materials, Important	6	
Jefferson County Office Park	Jefferson County	1	23500000	2024	940000	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	45	0

JEFFERSON CO-US 1 (AVERA RD) (SL)	Jefferson County	1	1500000	2024		Government, Government, Water/Sewer, Water/Sewer	Important		
Lions Club Evac. Center	Jefferson County	1	12000	2024		Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Historic Consideration	8	
Matthews Station	Jefferson County	1	47500	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Oconee Fall Line Technical College	Jefferson County	1	1930505	2024	7500	Education, Education, VoTech, VoTech	Economic Assets, Important, Vulnerable Population	75	75
Ogeechee Service Center	Jefferson County	1	900000	2024		Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	50	0
16		16	$ 102,814,730.00		$ 6,579,800.00			1589	504

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Avera City Hall	Avera city	1	312500	2024	200000	Government, Government, Private, Private	Essential	1	0
Avera Fire Station	Avera city	1	100000	2024	200000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Avera Water Tank	Avera city	1	325000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0
3		3	$ 737,500.00		$ 400,000.00			1	0

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Bartow Wastewater Lift Station #4	Bartow town	1	60500	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			60500		0			0	0
1									
Bartow City Hall	Bartow town	0	209300	2024	53500	Government, Government, Private, Private	Economic Assets, Essential, Important, Lifeline	3	1
Bartow Community Center & Auditorium	Bartow town	0	1342200	2024	250000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets	1	1
Bartow Fire Dept & Communications Bldg	Bartow town	0	17100	2024	60000	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline, Special Consideration	0	0
Bartow Fire Dept and Emergency Shelter	Bartow town	0	330630	2024	38500	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets, Essential, Important, Lifeline	1	1
Bartow Museum	Bartow town	0	826847	2024		Government, Government, Water/Sewer, Water/Sewer	Historic Consideration	1	0

Bartow wastewater Lift Station #1	Bartow town	0	70300	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Lift Station #2	Bartow town	0	71400	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Lift Station #3	Bartow town	0	69000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Lift Station #5	Bartow town	0	90200	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Sewage Effluent Pump Station	Bartow town	0	63700	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Sewage Holding Pond	Bartow town	0	46400	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Bartow Wastewater Sewage Treatment Pond	Bartow town	0	50400	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Water Tower	Bartow town	0	393000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Water Well	Bartow town	0	111800	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Water Well #2	Bartow town	0	119700	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
15		15	$ 3,811,977.00		$ 402,000.00			6	3

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Louisvill City Hall	Louisville city	0	550000	2024	350000	Government, Government, Private, Private	Essential	10	4
Louisville Fire Station	Louisville city	0	750000	2024	850000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	4	
Pumping Station (2nd Street)	Louisville city	0	0	2024		Emergency Services, Emergency Services, Water/Sewer, Water/Sewer	Essential		
Louisville WPCP	Louisville city	0	15000000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline	2	
City of Louisville Water Tank	Louisville city	0	500000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important		
Louisville Water Works	Louisville city	0	4425000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		

Highway 24 Lift Station	Louisville city	0	150000	2016		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
US # 1 Bypass Lift Station	Louisville city	0	150000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Market House	Louisville city	0	100000	2024		Government, Government, Water/Sewer, Water/Sewer	Historic Consideration, Special Consideration		
Physicians Health Group Louisville	Louisville city	0	2400000	2024	500000	Government, Government, Water/Sewer, Water/Sewer	Important	20	
American Renal Assoc NCA Dialysis Center	Louisville city	0	1261225	2024		Medical, Medical, Private, Private	Important, Vulnerable Population	10	
OCI Nursing Home	Louisville city	0	5000000	2024		Education, Education, Library, Library	Vulnerable Population	225	200
Grange Rd water Plant	Louisville city	0	5000000	2024		Government, Government, Water/Sewer, Water/Sewer			
Pumping Station (Jewel Lane)	Louisville city	0				Government, Water/Sewer			
14		14	$ 35,286,225.00		$ 1,700,000.00			271	204

Louisville City WaterTower	Louisville city	1	950000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Special Consideration		
Booster pump station	Louisville city	1	175000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville Lift Station at HS	Louisville city	1	150000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville Tech Lift Station	Louisville city	1	125000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville City Airport	Louisville city	1	543665	2024		NGO, NGO, Transportation, Transportation	Important, Transportation		
Louisville Water Tower	Louisville city	1	712500	2024		Government, Government, Water/Sewer, Water/Sewer			
6		6	$ 2,656,165.00						

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Stapleton City Hall & Emergency Shelter	Stapleton city	0	508109	2024	74000	Government, Government, Private, Private	Essential	2	
Stapleton Fire house & Emergency Shelter	Stapleton city	0	509327	2024	700000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Important, Lifeline		
Stapleton Water Tank #1	Stapleton city	0	771603	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Stapleton Water Tank #2	Stapleton city	0	795253	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		
4		4	$ 2,584,292.00		$ 774,000.00			2	

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Daytime Occupancy	Nighttime Occupancy
Glendale Nursing Home	Wadley city	0	1610863	2024	750000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Important, Special Consideration, Vulnerable Population	120	90
Physicans Health Group Wadley	Wadley city	0	405650	2024	250000	Education, Education, Private, Private	Important	10	
Wadley City Hall	Wadley city	0	1500000	2024	250000	Government, Government, Private, Private	Economic Assets, Essential	5	0
Wadley Community Complex	Wadley city	0	800000	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Historic Consideration, Important		
Wadley Elevated Water Tank	Wadley city	0	650000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wadley Fire Station	Wadley city	0	300000	2024	500000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential		

Wadley Gym	Wadley city	0	400000	2024		Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Historic Consideration, Important		
Wadley Lift Station #1	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #2	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #3	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #4	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #5	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer			
Wadley Lift Station #6	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		

Wadley Police Department	Wadley city	0	900000	2024	200000	Law Enforcement, Law Enforcement, Police, Police	Essential	6	2
Wadley Public Library	Wadley city	0	510000	2024	538200	Education, Education, Library, Library	Economic Assets, Important	5	5
Wadley Water Tower #2	Wadley city	0	500000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	
Wadley Well House	Wadley city	0	600000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
17		17	$ 8,300,653.00		$ 2,488,200.00			146	97

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Bushy Creek Lift Station	Wrens city	0	400000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
City of Wrens Airport	Wrens city	0	504388	2024		Emergency Services, Emergency Services, EMA, EMA	Essential		
City of Wrens Wastewater Treatment Plant	Wrens city	0	180307	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Family Y/ City of Wrens Recreation	Wrens city	0	2080755	2024		Education, Education, K - 12, K - 12	Vulnerable Population		
Gold Cross and Food Bank Development Center	Wrens city	0	96907	2024		Emergency Services, Emergency Services, EMS, EMS	Economic Assets		
Water Booster Station	Wrens city	0	500000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens City Hall	Wrens city	0	1125000	2024	150000	Government, Government, Private, Private	Economic Assets, Essential	10	

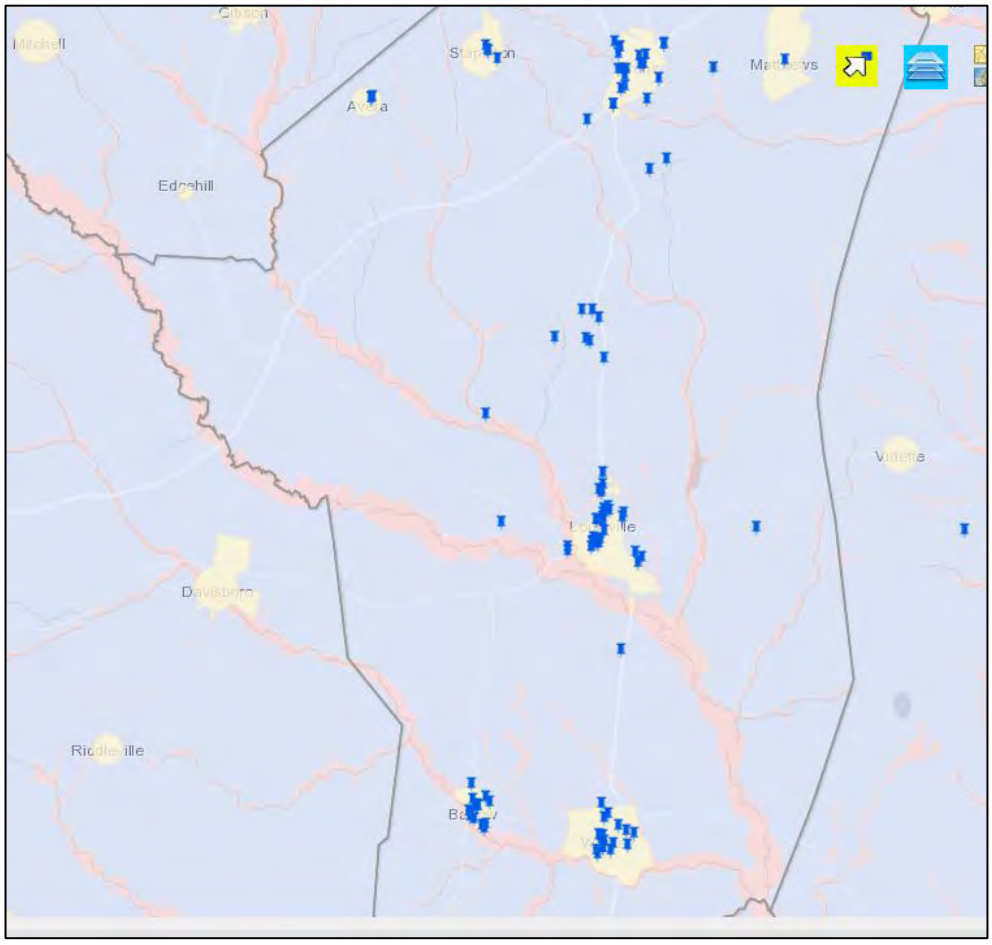
Wrens Community Center	Wrens city	0	500000	2024	50000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets	20	
Wrens Medical Center	Wrens city	0	875000	2024	200000	Government, Government, Water/Sewer, Water/Sewer	Important, Vulnerable Population	20	
Wrens Old Library Building	Wrens city	0	625000	2024	549200	Education, Education, Library, Library	Economic Assets, Historic Consideration, Important		
Wrens Water Pumping Station	Wrens city	0	300000	2024	50000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Pumping Station	Wrens city	0	75000	2024	25000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Tank	Wrens city	0	625000	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Tank	Wrens city	0	625000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Wrens Water Tank	Wrens city	0	625000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
15		15	$ 9,137,357.00		$ 1,024,200.00			50	
Border Regulator Station	Wrens city	1	100000	2024		Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Lifeline		
Calcine Meter Set	Wrens city	1	225000	2024		Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Highway 88 Lift Station	Wrens city	1	350000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
IMERYS Meter Set	Wrens city	1	300000	2024		Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials		

KA-MIN #1	Wrens city	1	250000	2024		Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Important, Lifeline		
Ka-Min #2	Wrens city	1	250000	2024		Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials, Lifeline		
King Mill Well (Well E)	Wrens city	1	750000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Southern Tap #1	Wrens city	1	750000	2024	2024	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Southern Tap #2	Wrens city	1	750000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline		
Stephens St Lift Station	Wrens city	1	350000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

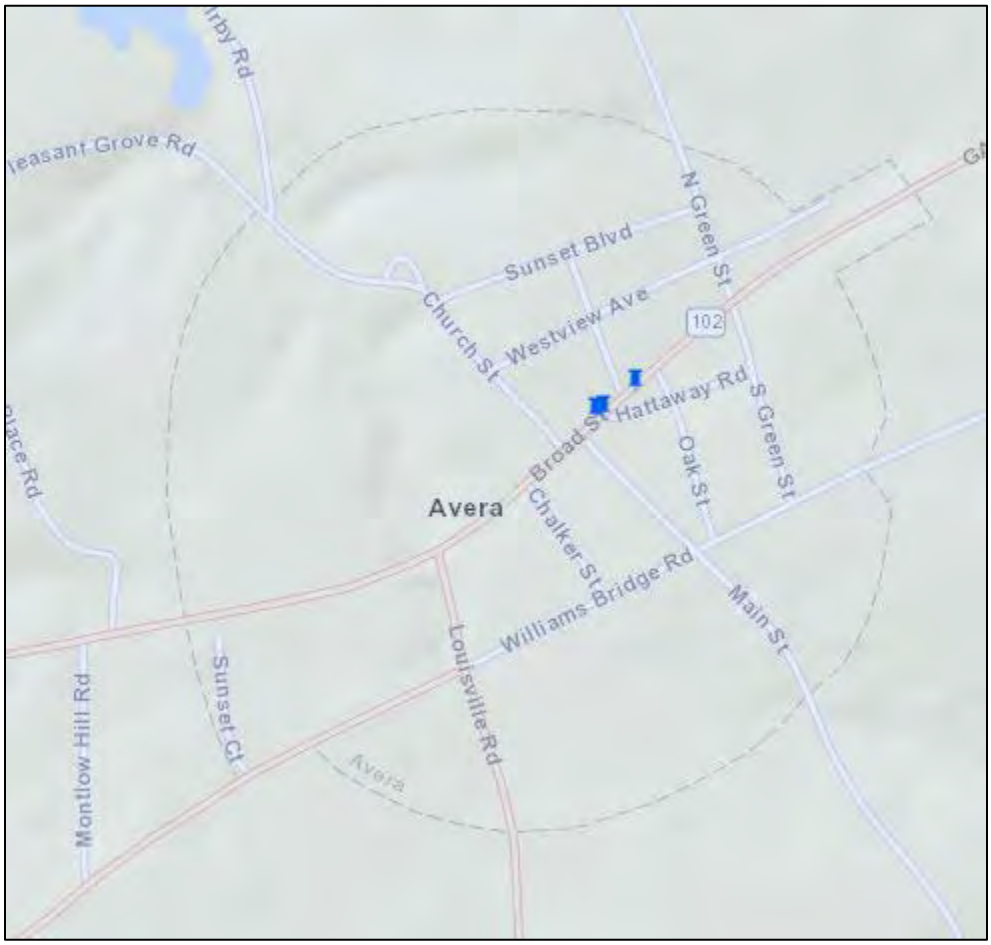
Waynesboro Highway Lift Station	Wrens city	1	400000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens Water Pumping Station	Wrens city	1	125000	2024	25000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Tank	Wrens city	1	687500	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
13		13	$ 5,287,500.00		$ 27,024.00				
West Walker St Lift Station	Wrens city	3	300000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens Sewage Treatment Plant	Wrens city	3	3250000	2024	125000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Hazardous Materials		
2		2	$ 3,550,000.00						

Jefferson County Flood Plains Georgia Mitigation Information System



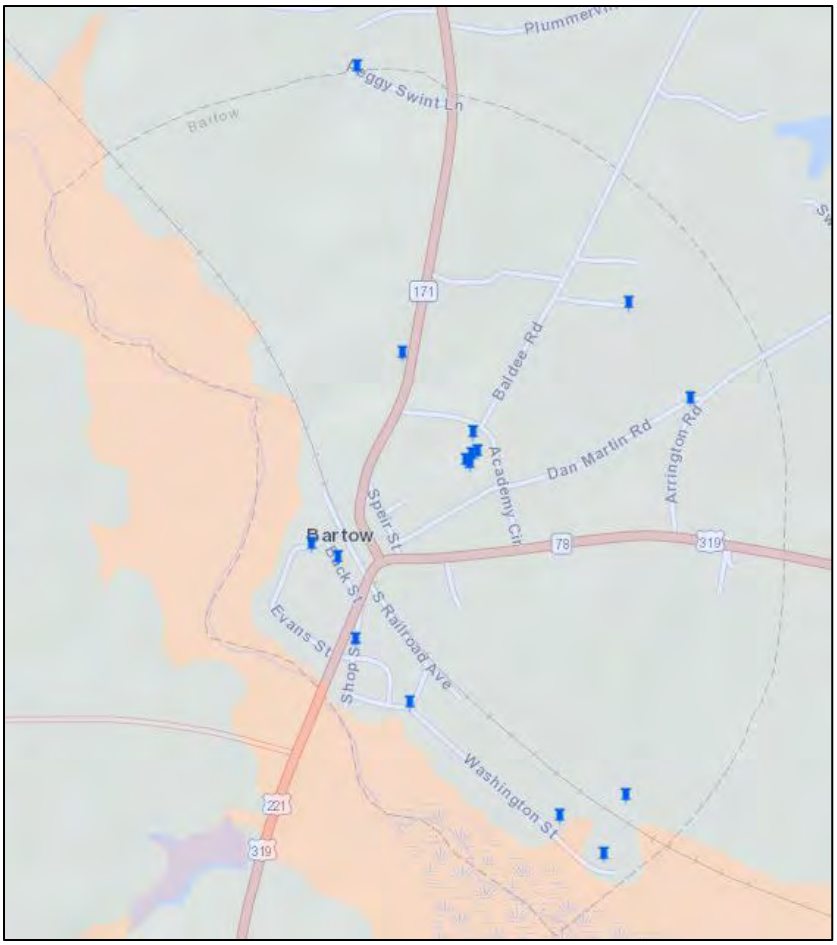
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Avera Flood Plains Georgia Mitigation Information System



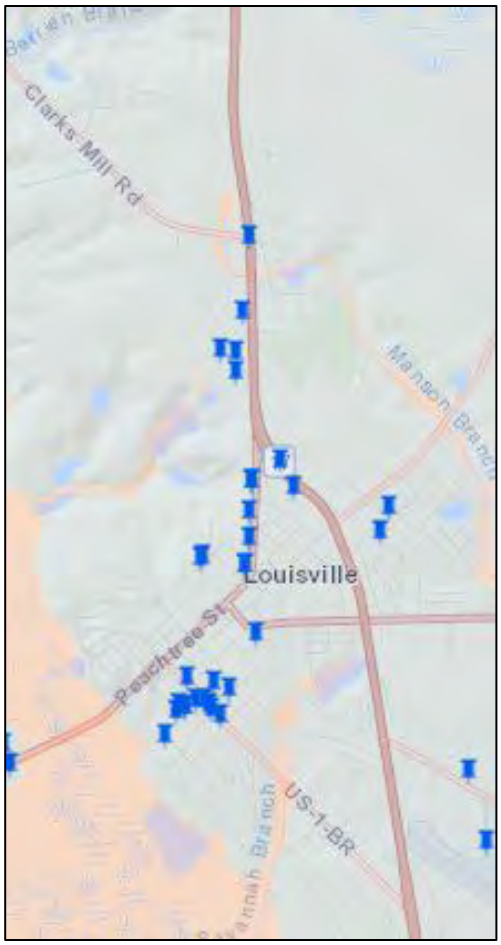
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Bartow Flood Plains Georgia Mitigation Information System



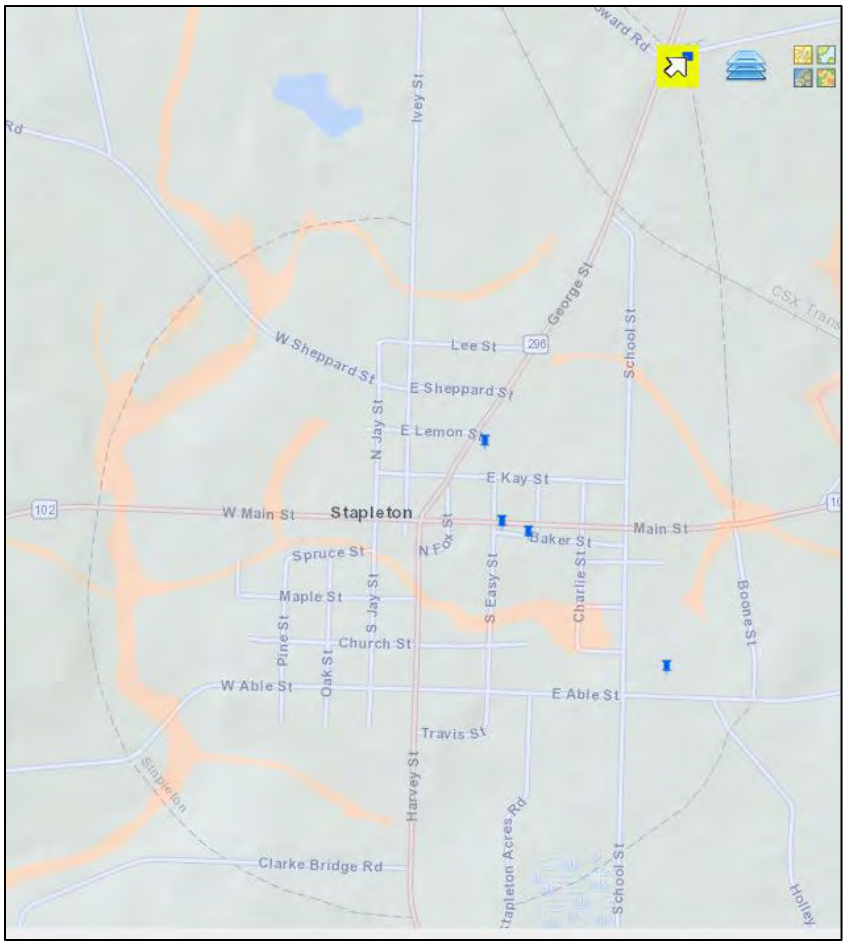
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Louisville Flood Plains Georgia Mitigation Information System



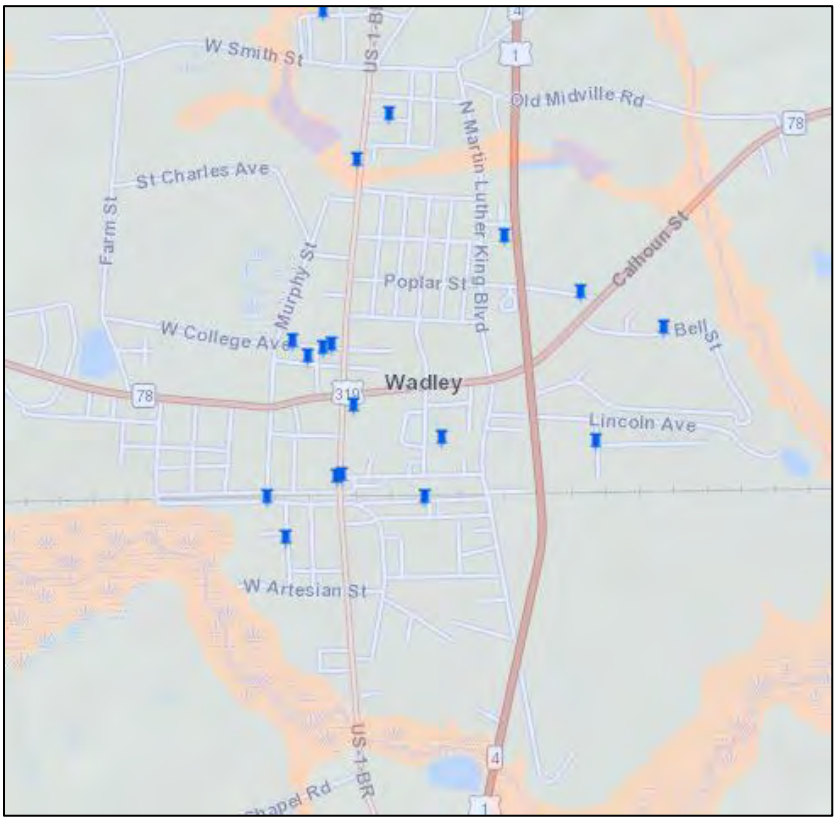
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Stapleton Flood Plains Georgia Mitigation Information System



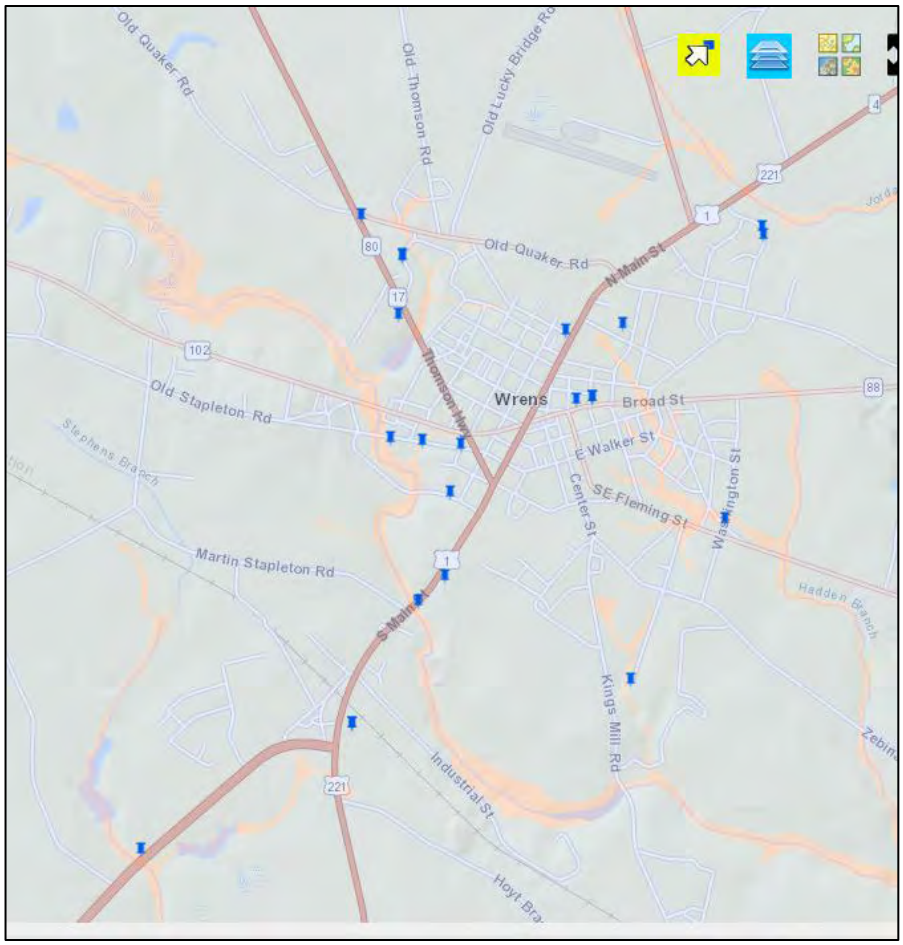
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Wadley Flood Plains Georgia Mitigation Information System



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

Wrens Flood Plains Georgia Mitigation Information System



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

Dam Failures

Dam failures and incidents involve unintended release or surges of impounded water. They can destroy property and cause injury and death downstream. While they may involve the total collapse of a dam, that is not always the case. Damaged spillways, overtopping of a dam or other problems may result in a hazardous situation. Dam failures may be caused by structural deficiencies in the dam itself. Dam failures may also come from other factors including but not limited to debris blocking spillways, flooding, earthquakes, improper operation and vandalism. Dam failures are potentially the worst flood events. When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path and posing a threat to life and property.

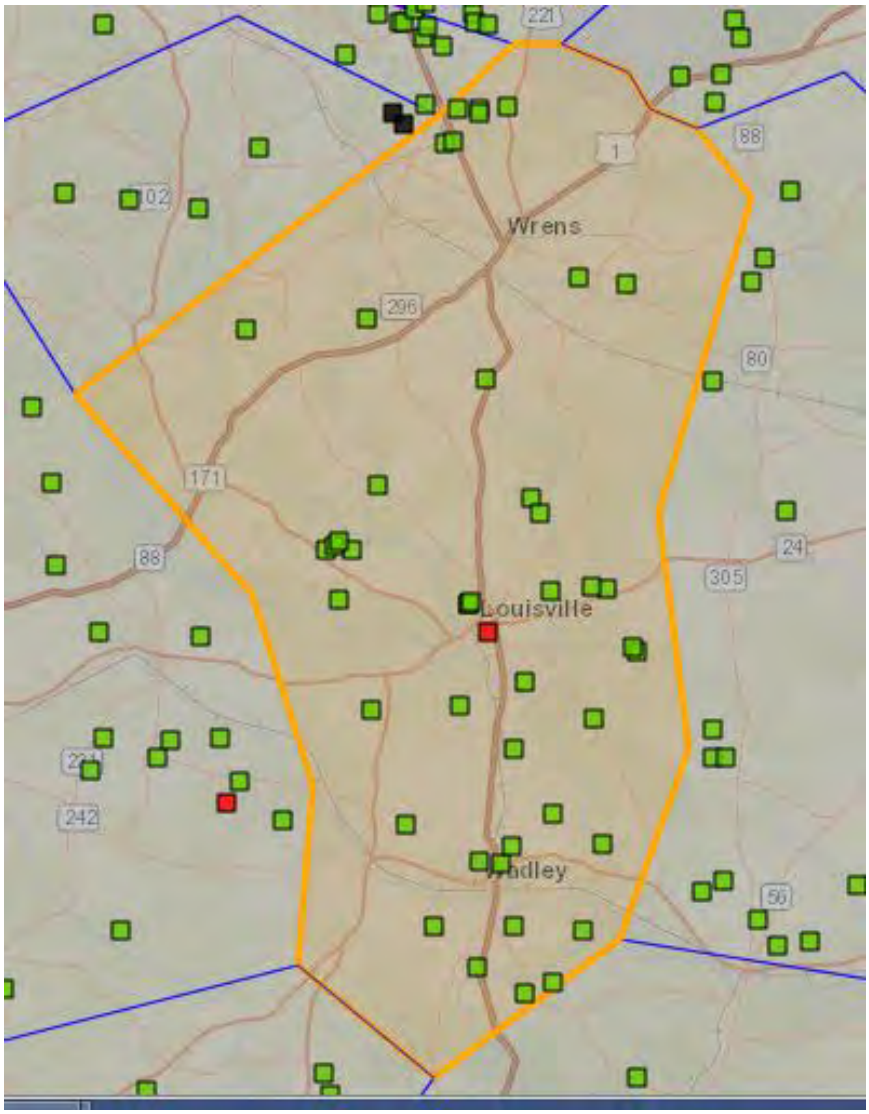
Dams are classified into three categories:
• High Hazard – Dams where failure or disoperation will probably cause loss of human life.
• Significant Hazard – Dams where failure or disoperation will probably not result in loss of life, but can cause economic loss, environmental damage, and disruption of lifeline facilities or other concerns.
• Low Hazard – Dams where failure or disoperation will probably not result in loss of life and cause only low economic and/or environmental loss.

A review of the National Inventory of Dams shows that Jefferson County has 42 dams with 41 classified as low hazard and 1 classified as high hazard. A high hazard classification is based upon the finding that a probable loss of life would occur in the event of a dam failure. If the 1 high hazard dam fails there is the potential for loss of life and property and economic losses. The remaining 41 dams are low hazard were potential losses are limited to minimal property damage. The potential losses due to dam failure flooding are unknown and cannot be estimated at this time. The County has population of 16,930 and 37,363 structures/properties valued at slightly less than $1.3 billion at risk of potential loss. (See Appendix A Section II and Appendix D).

National Inventory of Dams - Jefferson County, GA						
Dam Name	NID ID	State Regulated Dam	Federally Regulated Dam	Federal Agency Involvement Regulatory	Hazard Potential Classification	EAP Prepared
Georgia Kaolin Reject Pond Dam	GA04666	No	No		Low	Not Required
E.C.C.I West Settling Pond	GA04374	No	No		Low	Not Required
Lake Marian Dam	GA03259	Yes	No		High	Yes
Cunningham Corner Irrigation Pond Dam	GA02665	No	No		Low	Not Required
Kelly's Pond Dam	GA04660	No	No		Low	Not Required
Clarks Millpond Dam	GA04659	No	No		Low	Not Required
Gambrel Irrigation Pond Dam	GA04624	No	No		Low	Not Required
Smith Farms Irrigation Pond Dam	GA03034	No	No		Low	Not Required
Newberry Irrigation Pond Dam # 2	GA04669	No	No		Low	Not Required
Pilcher Lake Dam	GA00191	No	No		Low	Not Required
Lost Lake Dam	GA02662	No	No		Low	Not Required
Huber Wrens Plant Wastewater Pond Dam	GA04662	No	No		Low	Not Required
Cobb Irrigation Pond Dam	GA03030	No	No		Low	Not Required
Mcneely - Hannah Lake Dam	GA02660	No	No		Low	Not Required
Redfield Farms, INC. New Irrigation Pond Dam	GA04668	No	No		Low	Not Required
Newberry Irrigation Pond Dam # 1	GA03026	No	No		Low	Not Required
Weeks Lake Dam	GA02661	No	No		Low	Not Required
Union Camp Lake Dam (Upper)	GA03364	No	No		Low	Not Required
Stapleton Millpond Dam	GA00190	No	No		Low	Not Required
Radcliffe Farms Lake Dam # 02	GA04671	No	No		Low	Not Required
Lake Rabun Dam	GA03258	No	No		Low	Not Required
Redfield Farms, INC. Irrigation Pond Dam	GA04665	No	No		Low	Not Required
Pennington Irrigation Lake Dam	GA03032	No	No		Low	Not Required
Pennington Tailings Pond Dam	GA04670	No	No		Low	Not Required
Adams Lake Dam	GA03035	No	No		Low	Not Required
Hancock Pond Dam	GA03033	No	No		Low	Not Required
Rocky Comfort, INC. Irrigation Dam	GA04663	No	No		Low	Not Required

National Inventory of Dams - Jefferson County, GA						
Dam Name	NID ID	State Regulated Dam	Federally Regulated Dam	Federal Agency Involvement Regulatory	Hazard Potential Classification	EAP Prepared
Proposed J. M Huber Holley Impoundment	GA05782	No	No		Low	Not Required
Rachels Millpond Dam	GA03260	No	No		Low	Not Required
Brett Pond Dam	GA03031	No	No		Low	Not Required
Evans Lake Dam	GA00185	No	No		Low	Not Required
Smith Pond Dam	GA04664	No	No		Low	Not Required
Radcliffe Farm Lake Dam # 03	GA04667	No	No		Low	Not Required
Union Camp Lake Dam (Lower)	GA04656	No	No		Low	Not Required
Radcliffe Farms Lake Dam # 01	GA04672	No	No		Low	Not Required
Hadden Pond Dam	GA03024	No	No		Low	Not Required
Wommack Lake Dam	GA02659	No	No		Low	Not Required
Davis Lake Dam (Lower)	GA02663	No	No		Low	Not Required
Henderson Lake Dam	GA00184	No	No		Low	Not Required
Davis Lake Dam (Upper)	GA04657	No	No		Low	Not Required
Mcdonalds Lake Dam	GA04658	No	No		Low	Not Required
Battle Lake Dam	GA03028	No	No		Low	Not Required

Jefferson County Dam Map



Hazard Potential Type

- High
- Significant
- Low
- Undetermined
- Not Available

Drought

Drought is not spatially defined and has the potential to affect the entire planning area equally. Jefferson County has a total area of 339,200 acres of which 151,521 acres dedicated to agricultural. According to the USDA 2022 Census of Agriculture 13,373 head of livestock. Agricultural losses due to drought have been the primary losses. No critical facilities have sustained any damage or functional downtime due to dry weather conditions. The last drought event in Jefferson County ran from August 2016 to January 2017.

There have been 25 drought events in the county in the last 69 years with estimated crop losses at $6.6 million. According to the USDA Farm Subsidies Database, from 1995-2023, Jefferson County received a total of $125.95 million in farm subsidy payments of which an $13 million was for disaster assistance. Historical data is only for the county as a whole. Based on a 20-year cycle hazard history along with available data there is a 91.67% chance of an annual drought event in Jefferson County. In addition to an increased threat of wildfires, drought can affect municipal and industrial water supplies, stream-water quality, water recreation facilities, hydropower generation, as well as agricultural and forest resources.

In summary, for Jefferson County as a whole, there are a total of 7,690 agricultural/forestry properties in Jefferson County valued at more than $467 million with a population of 622 and includes 13,373 head of livestock that are at the greatest risk due to a drought event. There is a population of 16,930 and approximately 40,626 structures/properties in the county with a value just slightly less than $1.3 billion which could be affected if wildfires break out as a result of drought conditions.

Jefferson County U. S. Drought Moitor Data

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
1/4/2000	0	100	100	0.63	0	0	201
1/11/2000	0	100	100	0	0	0	200
1/18/2000	0	100	100	0	0	0	200
1/25/2000	0	100	100	0	0	0	200
2/1/2000	0	100	100	0	0	0	200
2/8/2000	0	100	100	0	0	0	200
2/15/2000	0	100	100	0	0	0	200
2/22/2000	0	100	100	0	0	0	200
2/29/2000	0	100	100	0	0	0	200
3/7/2000	0	100	100	0	0	0	200
3/14/2000	0	100	100	0	0	0	200
3/21/2000	0	100	100	0	0	0	200
3/28/2000	0	100	100	0	0	0	200
4/4/2000	0	100	100	0	0	0	200
4/11/2000	0	100	100	0	0	0	200
4/18/2000	0	100	100	54.99	0	0	255
4/25/2000	0	100	100	0.06	0	0	200
5/2/2000	0	100	100	0.06	0	0	200
5/9/2000	0	100	100	0.02	0	0	200
5/16/2000	0	100	100	100	0	0	300
5/23/2000	0	100	100	100	0	0	300
5/30/2000	0	100	100	100	100	0	400
6/6/2000	0	100	100	100	100	0	400
6/13/2000	0	100	100	100	100	100	500
6/20/2000	0	100	100	100	100	98.57	499
6/27/2000	0	100	100	100	100	100	500
7/4/2000	0	100	100	100	100	100	500
7/11/2000	0	100	100	100	100	100	500
7/18/2000	0	100	100	100	100	43.71	444
7/25/2000	0	100	100	100	100	38.18	438
8/1/2000	0	100	100	100	100	19.3	419
8/8/2000	0	100	100	100	100	0	400
8/15/2000	0	100	100	100	100	0	400
8/22/2000	0	100	100	100	100	0	400
8/29/2000	0	100	100	100	100	0	400
9/5/2000	0	100	100	100	90.8	0	391
9/12/2000	0	100	100	100	90.79	0	391
9/19/2000	0	100	100	100	90.8	0	391
9/26/2000	0	100	100	29.48	0	0	229
10/3/2000	0	100	100	30.18	0	0	230
10/10/2000	0	100	100	30.18	0	0	230
10/17/2000	0	100	100	97.2	0	0	297

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/24/2000	0	100	100	100	0	0	300
10/31/2000	0	100	100	100	0	0	300
11/7/2000	0	100	100	100	0	0	300
11/14/2000	0	100	100	100	0	0	300
11/21/2000	0	100	100	100	0	0	300
11/28/2000	0	100	100	99.99	0	0	300
12/5/2000	0	100	100	100	0	0	300
12/12/2000	0	100	100	100	0	0	300
12/19/2000	0	100	100	0	0	0	200
12/26/2000	0	100	100	0	0	0	200
1/2/2001	0	100	100	0	0	0	200
1/9/2001	0	100	100	0	0	0	200
1/16/2001	0	100	100	0	0	0	200
1/23/2001	0	100	100	0	0	0	200
1/30/2001	0	100	100	0	0	0	200
2/6/2001	0	100	100	0	0	0	200
2/13/2001	0	100	100	0	0	0	200
2/20/2001	0	100	100	0	0	0	200
2/27/2001	0	100	100	0	0	0	200
3/6/2001	0	100	100	0	0	0	200
3/13/2001	0	100	100	0	0	0	200
3/20/2001	0	100	100	0	0	0	200
3/27/2001	0	100	100	0	0	0	200
4/3/2001	0	100	100	0	0	0	200
4/10/2001	0	100	100	0	0	0	200
4/17/2001	0	100	100	0	0	0	200
4/24/2001	0	100	100	0	0	0	200
5/1/2001	0	100	100	0	0	0	200
5/8/2001	0	100	100	0	0	0	200
5/15/2001	0	100	100	100	0	0	300
5/22/2001	0	100	100	100	0	0	300
5/29/2001	0	100	100	100	0	0	300
6/5/2001	0	100	100	100	0	0	300
6/12/2001	0	100	100	100	0	0	300
6/19/2001	0	100	0	0	0	0	100
6/26/2001	0	100	0	0	0	0	100
7/3/2001	0	100	0	0	0	0	100
7/10/2001	16.69	83.31	0	0	0	0	83
7/17/2001	16.69	83.31	0	0	0	0	83
7/24/2001	9.51	90.49	0	0	0	0	90
7/31/2001	13.61	86.39	0	0	0	0	86
8/7/2001	51.45	48.55	0	0	0	0	49
8/14/2001	86.03	13.97	0	0	0	0	14

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/21/2001	93.57	6.43	0	0	0	0	6
8/28/2001	95.28	4.72	0	0	0	0	5
9/4/2001	94.48	5.52	0	0	0	0	6
9/11/2001	94.48	5.52	0	0	0	0	6
9/18/2001	0	100	0	0	0	0	100
9/25/2001	0	100	0	0	0	0	100
10/2/2001	0	100	54.2	0	0	0	154
10/9/2001	0	100	56.92	0	0	0	157
10/16/2001	0	100	58.5	0	0	0	159
10/23/2001	0	100	100	0	0	0	200
10/30/2001	0	100	100	100	0	0	300
11/6/2001	0	100	100	100	0	0	300
11/13/2001	0	100	100	100	0	0	300
11/20/2001	0	100	100	100	0	0	300
11/27/2001	0	100	100	100	0	0	300
12/4/2001	0	100	100	100	0	0	300
12/11/2001	0	100	100	100	0	0	300
12/18/2001	0	100	100	100	0	0	300
12/25/2001	0	100	100	100	0	0	300
1/1/2002	0	100	100	100	26.23	0	326
1/8/2002	0	100	100	100	8.4	0	308
1/15/2002	0	100	100	100	0	0	300
1/22/2002	0	100	100	100	0	0	300
1/29/2002	0	100	100	100	0	0	300
2/5/2002	0	100	100	100	100	0	400
2/12/2002	0	100	100	100	100	0	400
2/19/2002	0	100	100	100	100	0	400
2/26/2002	0	100	100	100	100	0	400
3/5/2002	0	100	100	100	100	0	400
3/12/2002	0	100	100	100	100	0	400
3/19/2002	0	100	100	100	100	0	400
3/26/2002	0	100	100	100	100	0	400
4/2/2002	0	100	100	100	42.26	0	342
4/9/2002	0	100	100	100	47.94	0	348
4/16/2002	0	100	100	100	0	0	300
4/23/2002	0	100	100	100	0	0	300
4/30/2002	0	100	100	100	89.14	0	389
5/7/2002	0	100	100	100	100	0	400
5/14/2002	0	100	100	100	100	0	400
5/21/2002	0	100	100	100	100	0	400
5/28/2002	0	100	100	100	97.9	0	398
6/4/2002	0	100	100	100	92.78	0	393
6/11/2002	0	100	100	100	87.88	0	388

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
6/18/2002	0	100	100	100	100	0	400
6/25/2002	0	100	100	100	100	0	400
7/2/2002	0	100	100	100	100	0	400
7/9/2002	0	100	100	100	100	0	400
7/16/2002	0	100	100	100	100	0	400
7/23/2002	0	100	100	100	100	0	400
7/30/2002	0	100	100	100	100	0	400
8/6/2002	0	100	100	100	100	0	400
8/13/2002	0	100	100	100	100	100	500
8/20/2002	0	100	100	100	100	100	500
8/27/2002	0	100	100	100	100	100	500
9/3/2002	0	100	100	100	100	89.68	490
9/10/2002	0	100	100	100	100	46.75	447
9/17/2002	0	100	100	100	87.25	0	387
9/24/2002	0	100	100	100	0	0	300
10/1/2002	0	100	100	100	0	0	300
10/8/2002	0	100	100	100	0	0	300
10/15/2002	0	100	100	100	0	0	300
10/22/2002	0	100	100	100	0	0	300
10/29/2002	0	100	100	100	0	0	300
11/5/2002	0	100	100	100	0	0	300
11/12/2002	0	100	100	0	0	0	200
11/19/2002	0	100	100	0	0	0	200
11/26/2002	0	100	100	0	0	0	200
12/3/2002	0	100	100	0	0	0	200
12/10/2002	0	100	100	0	0	0	200
12/17/2002	0	100	0	0	0	0	100
12/24/2002	0	100	0	0	0	0	100
12/31/2002	14.38	85.62	0	0	0	0	86
1/7/2003	3.78	96.22	0	0	0	0	96
1/14/2003	8.22	91.78	0	0	0	0	92
1/21/2003	3.56	96.44	0	0	0	0	96
1/28/2003	4.56	95.44	0	0	0	0	95
2/4/2003	0	100	0	0	0	0	100
2/11/2003	0	100	0	0	0	0	100
2/18/2003	0	100	0	0	0	0	100
2/25/2003	0	100	0	0	0	0	100
3/4/2003	0	100	0	0	0	0	100
3/11/2003	0	100	0	0	0	0	100
3/18/2003	0	100	0	0	0	0	100
3/25/2003	100	0	0	0	0	0	0
4/1/2003	100	0	0	0	0	0	0
4/8/2003	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
4/15/2003	100	0	0	0	0	0	0
4/22/2003	100	0	0	0	0	0	0
4/29/2003	100	0	0	0	0	0	0
5/6/2003	100	0	0	0	0	0	0
5/13/2003	100	0	0	0	0	0	0
5/20/2003	100	0	0	0	0	0	0
5/27/2003	100	0	0	0	0	0	0
6/3/2003	100	0	0	0	0	0	0
6/10/2003	100	0	0	0	0	0	0
6/17/2003	100	0	0	0	0	0	0
6/24/2003	100	0	0	0	0	0	0
7/1/2003	100	0	0	0	0	0	0
7/8/2003	100	0	0	0	0	0	0
7/15/2003	100	0	0	0	0	0	0
7/22/2003	100	0	0	0	0	0	0
7/29/2003	100	0	0	0	0	0	0
8/5/2003	100	0	0	0	0	0	0
8/12/2003	100	0	0	0	0	0	0
8/19/2003	100	0	0	0	0	0	0
8/26/2003	100	0	0	0	0	0	0
9/2/2003	100	0	0	0	0	0	0
9/9/2003	100	0	0	0	0	0	0
9/16/2003	100	0	0	0	0	0	0
9/23/2003	100	0	0	0	0	0	0
9/30/2003	100	0	0	0	0	0	0
10/7/2003	100	0	0	0	0	0	0
10/14/2003	100	0	0	0	0	0	0
10/21/2003	100	0	0	0	0	0	0
10/28/2003	100	0	0	0	0	0	0
11/4/2003	100	0	0	0	0	0	0
11/11/2003	100	0	0	0	0	0	0
11/18/2003	100	0	0	0	0	0	0
11/25/2003	100	0	0	0	0	0	0
12/2/2003	100	0	0	0	0	0	0
12/9/2003	100	0	0	0	0	0	0
12/16/2003	100	0	0	0	0	0	0
12/23/2003	100	0	0	0	0	0	0
12/30/2003	100	0	0	0	0	0	0
1/6/2004	100	0	0	0	0	0	0
1/13/2004	100	0	0	0	0	0	0
1/20/2004	100	0	0	0	0	0	0
1/27/2004	100	0	0	0	0	0	0
2/3/2004	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
2/10/2004	100	0	0	0	0	0	0
2/17/2004	100	0	0	0	0	0	0
2/24/2004	100	0	0	0	0	0	0
3/2/2004	100	0	0	0	0	0	0
3/9/2004	100	0	0	0	0	0	0
3/16/2004	100	0	0	0	0	0	0
3/23/2004	0	100	0	0	0	0	100
3/30/2004	0	100	0	0	0	0	100
4/6/2004	0	100	0	0	0	0	100
4/13/2004	0	100	0	0	0	0	100
4/20/2004	0	100	52.01	0	0	0	152
4/27/2004	0	100	100	0	0	0	200
5/4/2004	0	100	100	0	0	0	200
5/11/2004	0	100	100	0	0	0	200
5/18/2004	0	100	100	0	0	0	200
5/25/2004	0	100	100	100	0	0	300
6/1/2004	0	100	100	100	0	0	300
6/8/2004	0	100	100	100	0	0	300
6/15/2004	0	100	100	100	0	0	300
6/22/2004	0	100	100	0.2	0	0	200
6/29/2004	0	100	0.09	0	0	0	100
7/6/2004	0	100	0	0	0	0	100
7/13/2004	0	100	0	0	0	0	100
7/20/2004	0	100	0	0	0	0	100
7/27/2004	0	100	0	0	0	0	100
8/3/2004	0	100	0	0	0	0	100
8/10/2004	0	100	0	0	0	0	100
8/17/2004	13.13	86.87	0	0	0	0	87
8/24/2004	1.1	98.9	0	0	0	0	99
8/31/2004	6.47	93.53	0	0	0	0	94
9/7/2004	100	0	0	0	0	0	0
9/14/2004	100	0	0	0	0	0	0
9/21/2004	100	0	0	0	0	0	0
9/28/2004	100	0	0	0	0	0	0
10/5/2004	100	0	0	0	0	0	0
10/12/2004	100	0	0	0	0	0	0
10/19/2004	100	0	0	0	0	0	0
10/26/2004	100	0	0	0	0	0	0
11/2/2004	100	0	0	0	0	0	0
11/9/2004	100	0	0	0	0	0	0
11/16/2004	100	0	0	0	0	0	0
11/23/2004	100	0	0	0	0	0	0
11/30/2004	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
12/7/2004	100	0	0	0	0	0	0
12/14/2004	100	0	0	0	0	0	0
12/21/2004	100	0	0	0	0	0	0
12/28/2004	100	0	0	0	0	0	0
1/4/2005	100	0	0	0	0	0	0
1/11/2005	100	0	0	0	0	0	0
1/18/2005	100	0	0	0	0	0	0
1/25/2005	100	0	0	0	0	0	0
2/1/2005	100	0	0	0	0	0	0
2/8/2005	100	0	0	0	0	0	0
2/15/2005	100	0	0	0	0	0	0
2/22/2005	100	0	0	0	0	0	0
3/1/2005	100	0	0	0	0	0	0
3/8/2005	100	0	0	0	0	0	0
3/15/2005	100	0	0	0	0	0	0
3/22/2005	100	0	0	0	0	0	0
3/29/2005	100	0	0	0	0	0	0
4/5/2005	100	0	0	0	0	0	0
4/12/2005	100	0	0	0	0	0	0
4/19/2005	100	0	0	0	0	0	0
4/26/2005	100	0	0	0	0	0	0
5/3/2005	100	0	0	0	0	0	0
5/10/2005	100	0	0	0	0	0	0
5/17/2005	100	0	0	0	0	0	0
5/24/2005	100	0	0	0	0	0	0
5/31/2005	100	0	0	0	0	0	0
6/7/2005	100	0	0	0	0	0	0
6/14/2005	100	0	0	0	0	0	0
6/21/2005	100	0	0	0	0	0	0
6/28/2005	100	0	0	0	0	0	0
7/5/2005	100	0	0	0	0	0	0
7/12/2005	100	0	0	0	0	0	0
7/19/2005	100	0	0	0	0	0	0
7/26/2005	100	0	0	0	0	0	0
8/2/2005	100	0	0	0	0	0	0
8/9/2005	100	0	0	0	0	0	0
8/16/2005	100	0	0	0	0	0	0
8/23/2005	100	0	0	0	0	0	0
8/30/2005	100	0	0	0	0	0	0
9/6/2005	100	0	0	0	0	0	0
9/13/2005	100	0	0	0	0	0	0
9/20/2005	100	0	0	0	0	0	0
9/27/2005	34.75	65.25	0	0	0	0	65

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/4/2005	100	0	0	0	0	0	0
10/11/2005	100	0	0	0	0	0	0
10/18/2005	100	0	0	0	0	0	0
10/25/2005	100	0	0	0	0	0	0
11/1/2005	100	0	0	0	0	0	0
11/8/2005	100	0	0	0	0	0	0
11/15/2005	100	0	0	0	0	0	0
11/22/2005	100	0	0	0	0	0	0
11/29/2005	100	0	0	0	0	0	0
12/6/2005	100	0	0	0	0	0	0
12/13/2005	100	0	0	0	0	0	0
12/20/2005	100	0	0	0	0	0	0
12/27/2005	100	0	0	0	0	0	0
1/3/2006	100	0	0	0	0	0	0
1/10/2006	100	0	0	0	0	0	0
1/17/2006	100	0	0	0	0	0	0
1/24/2006	100	0	0	0	0	0	0
1/31/2006	100	0	0	0	0	0	0
2/7/2006	100	0	0	0	0	0	0
2/14/2006	100	0	0	0	0	0	0
2/21/2006	100	0	0	0	0	0	0
2/28/2006	100	0	0	0	0	0	0
3/7/2006	100	0	0	0	0	0	0
3/14/2006	100	0	0	0	0	0	0
3/21/2006	100	0	0	0	0	0	0
3/28/2006	100	0	0	0	0	0	0
4/4/2006	0	100	0	0	0	0	100
4/11/2006	0	100	0	0	0	0	100
4/18/2006	0	100	0	0	0	0	100
4/25/2006	0	100	0	0	0	0	100
5/2/2006	0	100	0	0	0	0	100
5/9/2006	0	100	0	0	0	0	100
5/16/2006	0	100	0	0	0	0	100
5/23/2006	0	100	0	0	0	0	100
5/30/2006	0	100	0	0	0	0	100
6/6/2006	0	100	44.79	0	0	0	145
6/13/2006	0	100	100	0	0	0	200
6/20/2006	0	100	35.72	0	0	0	136
6/27/2006	0	100	35.72	0	0	0	136
7/4/2006	0	100	37.13	0	0	0	137
7/11/2006	0	100	21.03	0	0	0	121
7/18/2006	0	100	21.03	0	0	0	121
7/25/2006	0	100	100	0	0	0	200

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/1/2006	0	100	100	0	0	0	200
8/8/2006	0	100	100	0	0	0	200
8/15/2006	0	100	100	0	0	0	200
8/22/2006	0	100	100	3.34	0	0	203
8/29/2006	0	100	100	0	0	0	200
9/5/2006	0	100	100	0	0	0	200
9/12/2006	0	100	100	0	0	0	200
9/19/2006	0	100	55.93	0	0	0	156
9/26/2006	0	100	55.93	0	0	0	156
10/3/2006	0	100	100	0	0	0	200
10/10/2006	0	100	100	0	0	0	200
10/17/2006	0	100	100	0	0	0	200
10/24/2006	0	100	100	0	0	0	200
10/31/2006	0	100	100	0	0	0	200
11/7/2006	0	100	100	0	0	0	200
11/14/2006	0	100	100	0	0	0	200
11/21/2006	0	100	0	0	0	0	100
11/28/2006	100	0	0	0	0	0	0
12/5/2006	100	0	0	0	0	0	0
12/12/2006	0	100	0	0	0	0	100
12/19/2006	0	100	0	0	0	0	100
12/26/2006	0	100	0	0	0	0	100
1/2/2007	0	100	0	0	0	0	100
1/9/2007	0	100	0	0	0	0	100
1/16/2007	100	0	0	0	0	0	0
1/23/2007	100	0	0	0	0	0	0
1/30/2007	100	0	0	0	0	0	0
2/6/2007	100	0	0	0	0	0	0
2/13/2007	100	0	0	0	0	0	0
2/20/2007	8.84	91.16	0	0	0	0	91
2/27/2007	0	100	0	0	0	0	100
3/6/2007	100	0	0	0	0	0	0
3/13/2007	100	0	0	0	0	0	0
3/20/2007	0	100	0	0	0	0	100
3/27/2007	0	100	0	0	0	0	100
4/3/2007	0	100	0	0	0	0	100
4/10/2007	0	100	0	0	0	0	100
4/17/2007	0	100	0	0	0	0	100
4/24/2007	0	100	100	0	0	0	200
5/1/2007	0	100	100	0	0	0	200
5/8/2007	0	100	100	0	0	0	200
5/15/2007	0	100	100	0	0	0	200
5/22/2007	0	100	100	73.4	0	0	273

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
5/29/2007	0	100	100	73.4	0	0	273
6/5/2007	0	100	74.45	0	0	0	174
6/12/2007	0	100	74.45	0	0	0	174
6/19/2007	0	100	74.45	0	0	0	174
6/26/2007	0	100	74.45	0	0	0	174
7/3/2007	0	100	30.43	0	0	0	130
7/10/2007	0	100	30.43	0	0	0	130
7/17/2007	0	100	30.43	0	0	0	130
7/24/2007	0	100	30.43	0	0	0	130
7/31/2007	0	100	30.43	0	0	0	130
8/7/2007	0	100	100	0	0	0	200
8/14/2007	0	100	100	0	0	0	200
8/21/2007	0	100	100	100	0	0	300
8/28/2007	0	100	100	100	0	0	300
9/4/2007	0	100	92.96	5.14	0	0	198
9/11/2007	0	100	92.96	10.29	0	0	203
9/18/2007	16.62	83.38	20.19	0	0	0	104
9/25/2007	16.62	83.38	20.19	0	0	0	104
10/2/2007	16.62	83.38	20.19	0	0	0	104
10/9/2007	9.22	90.78	44.74	1.55	0	0	137
10/16/2007	0	100	85.59	28.85	0	0	214
10/23/2007	0	100	85.59	28.85	0	0	214
10/30/2007	0	100	85.59	28.85	0	0	214
11/6/2007	0	100	85.59	28.85	0	0	214
11/13/2007	0	100	100	74	9.27	0	283
11/20/2007	0	100	100	74	9.27	0	283
11/27/2007	0	100	100	74	9.27	0	283
12/4/2007	0	100	100	94.46	41.32	0	336
12/11/2007	0	100	100	100	85.45	23.32	409
12/18/2007	0	100	100	100	85.45	23.32	409
12/25/2007	0	100	100	100	85.45	23.32	409
1/1/2008	0	100	100	91.42	2.29	0	294
1/8/2008	0	100	100	91.42	2.29	0	294
1/15/2008	0	100	100	91.42	2.29	0	294
1/22/2008	0	100	100	49.62	0	0	250
1/29/2008	0	100	100	49.62	0	0	250
2/5/2008	0	100	100	49.62	0	0	250
2/12/2008	0	100	100	49.62	0	0	250
2/19/2008	0	100	100	49.62	0	0	250
2/26/2008	0	100	85.59	0.98	0	0	187
3/4/2008	0	100	85.59	0.98	0	0	187
3/11/2008	0.29	99.71	0.8	0	0	0	101
3/18/2008	0.29	99.71	0.8	0	0	0	101

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
3/25/2008	0.29	99.71	0.8	0	0	0	101
4/1/2008	0.29	99.71	0.8	0	0	0	101
4/8/2008	0.29	99.71	0.8	0	0	0	101
4/15/2008	0.29	99.71	0.8	0	0	0	101
4/22/2008	0.29	99.71	0.8	0	0	0	101
4/29/2008	0.29	99.71	0.8	0	0	0	101
5/6/2008	0.29	99.71	0.8	0	0	0	101
5/13/2008	0.29	99.71	0.8	0	0	0	101
5/20/2008	0	100	0.8	0	0	0	101
5/27/2008	0	100	0.8	0	0	0	101
6/3/2008	0	100	10.64	0	0	0	111
6/10/2008	0	100	10.64	0	0	0	111
6/17/2008	0	100	100	0	0	0	200
6/24/2008	0	100	100	0	0	0	200
7/1/2008	0	100	100	68.06	0	0	268
7/8/2008	0	100	100	68.06	0	0	268
7/15/2008	0	100	100	68.06	0	0	268
7/22/2008	0	100	100	100	0	0	300
7/29/2008	0	100	100	100	0	0	300
8/5/2008	0	100	100	100	0	0	300
8/12/2008	0	100	100	100	0	0	300
8/19/2008	0	100	100	100	0	0	300
8/26/2008	0	100	100	100	0	0	300
9/2/2008	0	100	100	100	0	0	300
9/9/2008	0	100	100	100	0	0	300
9/16/2008	0	100	100	100	0	0	300
9/23/2008	0	100	100	100	0	0	300
9/30/2008	0	100	100	100	89.55	0	390
10/7/2008	0	100	100	100	89.55	0	390
10/14/2008	0	100	100	100	90.27	0	390
10/21/2008	0	100	100	100	90.27	0	390
10/28/2008	0	100	100	100	15.84	0	316
11/4/2008	0	100	100	100	15.84	0	316
11/11/2008	0	100	100	100	15.84	0	316
11/18/2008	0	100	100	100	0	0	300
11/25/2008	0	100	100	100	0	0	300
12/2/2008	0	100	100	18.19	0	0	218
12/9/2008	0	100	22.27	0	0	0	122
12/16/2008	100	0	0	0	0	0	0
12/23/2008	100	0	0	0	0	0	0
12/30/2008	100	0	0	0	0	0	0
1/6/2009	100	0	0	0	0	0	0
1/13/2009	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
1/20/2009	100	0	0	0	0	0	0
1/27/2009	100	0	0	0	0	0	0
2/3/2009	100	0	0	0	0	0	0
2/10/2009	0	100	0	0	0	0	100
2/17/2009	0	100	0	0	0	0	100
2/24/2009	0	100	100	0	0	0	200
3/3/2009	0	100	100	0	0	0	200
3/10/2009	0	100	100	0	0	0	200
3/17/2009	0	100	100	0	0	0	200
3/24/2009	0	100	100	0	0	0	200
3/31/2009	0	100	47.56	0	0	0	148
4/7/2009	100	0	0	0	0	0	0
4/14/2009	100	0	0	0	0	0	0
4/21/2009	100	0	0	0	0	0	0
4/28/2009	100	0	0	0	0	0	0
5/5/2009	100	0	0	0	0	0	0
5/12/2009	100	0	0	0	0	0	0
5/19/2009	100	0	0	0	0	0	0
5/26/2009	100	0	0	0	0	0	0
6/2/2009	100	0	0	0	0	0	0
6/9/2009	100	0	0	0	0	0	0
6/16/2009	100	0	0	0	0	0	0
6/23/2009	100	0	0	0	0	0	0
6/30/2009	100	0	0	0	0	0	0
7/7/2009	0	100	0	0	0	0	100
7/14/2009	25.74	74.26	0	0	0	0	74
7/21/2009	25.74	74.26	0	0	0	0	74
7/28/2009	25.74	74.26	0	0	0	0	74
8/4/2009	25.74	74.26	0	0	0	0	74
8/11/2009	25.74	74.26	0	0	0	0	74
8/18/2009	25.74	74.26	0	0	0	0	74
8/25/2009	25.74	74.26	0	0	0	0	74
9/1/2009	25.74	74.26	0	0	0	0	74
9/8/2009	25.65	74.35	0	0	0	0	74
9/15/2009	97.47	2.53	0	0	0	0	3
9/22/2009	100	0	0	0	0	0	0
9/29/2009	100	0	0	0	0	0	0
10/6/2009	100	0	0	0	0	0	0
10/13/2009	100	0	0	0	0	0	0
10/20/2009	100	0	0	0	0	0	0
10/27/2009	100	0	0	0	0	0	0
11/3/2009	100	0	0	0	0	0	0
11/10/2009	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
11/17/2009	100	0	0	0	0	0	0
11/24/2009	100	0	0	0	0	0	0
12/1/2009	100	0	0	0	0	0	0
12/8/2009	100	0	0	0	0	0	0
12/15/2009	100	0	0	0	0	0	0
12/22/2009	100	0	0	0	0	0	0
12/29/2009	100	0	0	0	0	0	0
1/5/2010	100	0	0	0	0	0	0
1/12/2010	100	0	0	0	0	0	0
1/19/2010	100	0	0	0	0	0	0
1/26/2010	100	0	0	0	0	0	0
2/2/2010	100	0	0	0	0	0	0
2/9/2010	100	0	0	0	0	0	0
2/16/2010	100	0	0	0	0	0	0
2/23/2010	100	0	0	0	0	0	0
3/2/2010	100	0	0	0	0	0	0
3/9/2010	100	0	0	0	0	0	0
3/16/2010	100	0	0	0	0	0	0
3/23/2010	100	0	0	0	0	0	0
3/30/2010	100	0	0	0	0	0	0
4/6/2010	100	0	0	0	0	0	0
4/13/2010	100	0	0	0	0	0	0
4/20/2010	100	0	0	0	0	0	0
4/27/2010	100	0	0	0	0	0	0
5/4/2010	100	0	0	0	0	0	0
5/11/2010	100	0	0	0	0	0	0
5/18/2010	100	0	0	0	0	0	0
5/25/2010	100	0	0	0	0	0	0
6/1/2010	100	0	0	0	0	0	0
6/8/2010	100	0	0	0	0	0	0
6/15/2010	100	0	0	0	0	0	0
6/22/2010	100	0	0	0	0	0	0
6/29/2010	100	0	0	0	0	0	0
7/6/2010	100	0	0	0	0	0	0
7/13/2010	100	0	0	0	0	0	0
7/20/2010	91.92	8.08	0	0	0	0	8
7/27/2010	71.36	28.64	0	0	0	0	29
8/3/2010	100	0	0	0	0	0	0
8/10/2010	100	0	0	0	0	0	0
8/17/2010	99.99	0.01	0	0	0	0	0
8/24/2010	100	0	0	0	0	0	0
8/31/2010	100	0	0	0	0	0	0
9/7/2010	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
9/14/2010	0	100	0	0	0	0	100
9/21/2010	0	100	0	0	0	0	100
9/28/2010	0	100	0	0	0	0	100
10/5/2010	0	100	0	0	0	0	100
10/12/2010	0	100	0	0	0	0	100
10/19/2010	0	100	0	0	0	0	100
10/26/2010	0	100	0	0	0	0	100
11/2/2010	0	100	0	0	0	0	100
11/9/2010	0	100	0	0	0	0	100
11/16/2010	0	100	0	0	0	0	100
11/23/2010	0	100	100	0	0	0	200
11/30/2010	0	100	100	0	0	0	200
12/7/2010	0	100	100	0	0	0	200
12/14/2010	0	100	100	0	0	0	200
12/21/2010	0	100	100	0	0	0	200
12/28/2010	0	100	100	0	0	0	200
1/4/2011	0	100	100	0	0	0	200
1/11/2011	0	100	100	0	0	0	200
1/18/2011	0	100	100	0	0	0	200
1/25/2011	0	100	100	0	0	0	200
2/1/2011	0	100	100	0	0	0	200
2/8/2011	0	100	15.12	0	0	0	115
2/15/2011	0	100	15.12	0	0	0	115
2/22/2011	0	100	15.12	0	0	0	115
3/1/2011	0	100	15.12	0	0	0	115
3/8/2011	0	100	15.12	0	0	0	115
3/15/2011	0	100	32.43	0	0	0	132
3/22/2011	0	100	100	0	0	0	200
3/29/2011	0	100	100	0	0	0	200
4/5/2011	0	100	100	0	0	0	200
4/12/2011	0	100	100	0	0	0	200
4/19/2011	0	100	100	0	0	0	200
4/26/2011	0	100	100	0	0	0	200
5/3/2011	0	100	100	0	0	0	200
5/10/2011	0	100	100	0	0	0	200
5/17/2011	0	100	100	98.91	0	0	299
5/24/2011	0	100	100	98.91	0	0	299
5/31/2011	0	100	100	100	1.11	0	301
6/7/2011	0	100	100	100	1.02	0	301
6/14/2011	0	100	100	100	0.92	0	301
6/21/2011	0	100	100	100	100	0.08	400
6/28/2011	0	100	100	100	100	0.08	400
7/5/2011	0	100	100	100	100	0.08	400

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
7/12/2011	0	100	100	100	100	0.08	400
7/19/2011	0	100	100	100	100	0	400
7/26/2011	0	100	100	100	100	0	400
8/2/2011	0	100	100	100	100	0	400
8/9/2011	0	100	100	100	5.97	0	306
8/16/2011	0	100	100	100	5.97	0	306
8/23/2011	0	100	100	100	5.97	0	306
8/30/2011	0	100	100	100	100	0	400
9/6/2011	0	100	100	100	100	0	400
9/13/2011	0	100	100	100	100	0	400
9/20/2011	0	100	100	100	100	0	400
9/27/2011	0	100	100	100	100	0	400
10/4/2011	0	100	100	100	100	0	400
10/11/2011	0	100	100	100	100	0	400
10/18/2011	0	100	100	100	45	0	345
10/25/2011	0	100	100	100	43.71	0	344
11/1/2011	0	100	100	100	43.71	0	344
11/8/2011	0	100	100	100	43.71	0	344
11/15/2011	0	100	100	100	34.61	0	335
11/22/2011	0	100	100	100	34.61	0	335
11/29/2011	0	100	100	100	34.61	0	335
12/6/2011	0	100	100	100	34.61	0	335
12/13/2011	0	100	100	100	34.61	0	335
12/20/2011	0	100	100	100	100	0	400
12/27/2011	0	100	100	100	100	0	400
1/3/2012	0	100	100	100	100	0	400
1/10/2012	0	100	100	100	100	0	400
1/17/2012	0	100	100	100	100	0	400
1/24/2012	0	100	100	100	100	0	400
1/31/2012	0	100	100	100	100	0	400
2/7/2012	0	100	100	100	100	0	400
2/14/2012	0	100	100	100	100	0.01	400
2/21/2012	0	100	100	100	100	0	400
2/28/2012	0	100	100	100	100	0	400
3/6/2012	0	100	100	100	100	0	400
3/13/2012	0	100	100	100	100	0	400
3/20/2012	0	100	100	100	100	0	400
3/27/2012	0	100	100	100	100	0	400
4/3/2012	0	100	100	100	100	0	400
4/10/2012	0	100	100	100	100	83.8	484
4/17/2012	0	100	100	100	100	83.8	484
4/24/2012	0	100	100	100	100	83.8	484
5/1/2012	0	100	100	100	100	92.61	493

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
5/8/2012	0	100	100	100	100	92.61	493
5/15/2012	0	100	100	100	100	100	500
5/22/2012	0	100	100	100	100	100	500
5/29/2012	0	100	100	100	100	100	500
6/5/2012	0	100	100	100	100	54.12	454
6/12/2012	0	100	100	100	74.25	47.4	422
6/19/2012	0	100	100	100	74.25	53.83	428
6/26/2012	0	100	100	100	74.25	53.83	428
7/3/2012	0	100	100	100	74.25	53.83	428
7/10/2012	0	100	100	100	74.25	53.83	428
7/17/2012	0	100	100	100	74.25	53.83	428
7/24/2012	0	100	100	100	74.25	53.83	428
7/31/2012	0	100	100	100	74.25	53.83	428
8/7/2012	0	100	100	100	74.25	53.83	428
8/14/2012	0	100	100	99.66	74.25	22.9	397
8/21/2012	0	100	100	99.66	74.25	22.9	397
8/28/2012	0	100	100	84.26	66.86	19.69	371
9/4/2012	0	100	100	83.72	44.4	19.69	348
9/11/2012	0	100	100	83.72	44.4	19.69	348
9/18/2012	0	100	100	83.72	44.4	19.69	348
9/25/2012	0	100	100	83.72	44.84	19.69	348
10/2/2012	0	100	100	83.72	44.84	22.04	351
10/9/2012	0	100	100	83.72	44.84	22.04	351
10/16/2012	0	100	100	83.72	44.84	22.04	351
10/23/2012	0	100	100	83.72	44.84	22.04	351
10/30/2012	0	100	100	83.72	44.84	22.04	351
11/6/2012	0	100	100	82.85	44.84	22.04	350
11/13/2012	0	100	100	99.15	46.36	22.04	368
11/20/2012	0	100	100	100	48.71	22.04	371
11/27/2012	0	100	100	100	48.71	22.04	371
12/4/2012	0	100	100	100	71.68	22.04	394
12/11/2012	0	100	100	100	72.05	22.04	394
12/18/2012	0	100	100	100	72.05	22.04	394
12/25/2012	0	100	100	100	72.05	22.04	394
1/1/2013	0	100	100	100	72.05	22.04	394
1/8/2013	0	100	100	100	72.05	22.04	394
1/15/2013	0	100	100	100	73.6	22.04	396
1/22/2013	0	100	100	100	73.6	22.04	396
1/29/2013	0	100	100	100	86.63	22.04	409
2/5/2013	0	100	100	100	86.63	22.04	409
2/12/2013	0	100	100	100	72.48	0	372
2/19/2013	0	100	100	100	72.48	0	372
2/26/2013	0	100	100	72.78	0	0	273

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
3/5/2013	0	100	83.41	57.63	0	0	241
3/12/2013	0	100	83.41	57.63	0	0	241
3/19/2013	0	100	77.53	1.55	0	0	179
3/26/2013	21.39	78.61	2.08	0	0	0	81
4/2/2013	21.39	78.61	2.08	0	0	0	81
4/9/2013	98.14	1.86	0	0	0	0	2
4/16/2013	98.14	1.86	0	0	0	0	2
4/23/2013	98.37	1.63	0	0	0	0	2
4/30/2013	100	0	0	0	0	0	0
5/7/2013	100	0	0	0	0	0	0
5/14/2013	100	0	0	0	0	0	0
5/21/2013	100	0	0	0	0	0	0
5/28/2013	100	0	0	0	0	0	0
6/4/2013	100	0	0	0	0	0	0
6/11/2013	100	0	0	0	0	0	0
6/18/2013	100	0	0	0	0	0	0
6/25/2013	100	0	0	0	0	0	0
7/2/2013	100	0	0	0	0	0	0
7/9/2013	100	0	0	0	0	0	0
7/16/2013	100	0	0	0	0	0	0
7/23/2013	100	0	0	0	0	0	0
7/30/2013	100	0	0	0	0	0	0
8/6/2013	100	0	0	0	0	0	0
8/13/2013	100	0	0	0	0	0	0
8/20/2013	100	0	0	0	0	0	0
8/27/2013	100	0	0	0	0	0	0
9/3/2013	100	0	0	0	0	0	0
9/10/2013	100	0	0	0	0	0	0
9/17/2013	100	0	0	0	0	0	0
9/24/2013	100	0	0	0	0	0	0
10/1/2013	100	0	0	0	0	0	0
10/8/2013	100	0	0	0	0	0	0
10/15/2013	100	0	0	0	0	0	0
10/22/2013	41.13	58.87	0	0	0	0	59
10/29/2013	34.79	65.21	0	0	0	0	65
11/5/2013	34.79	65.21	0	0	0	0	65
11/12/2013	35.99	64.01	0	0	0	0	64
11/19/2013	0	100	0	0	0	0	100
11/26/2013	0	100	0	0	0	0	100
12/3/2013	0	100	0	0	0	0	100
12/10/2013	0.19	99.81	0	0	0	0	100
12/17/2013	0.19	99.81	0	0	0	0	100
12/24/2013	0.19	99.81	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
12/31/2013	100	0	0	0	0	0	0
1/7/2014	100	0	0	0	0	0	0
1/14/2014	100	0	0	0	0	0	0
1/21/2014	100	0	0	0	0	0	0
1/28/2014	100	0	0	0	0	0	0
2/4/2014	100	0	0	0	0	0	0
2/11/2014	100	0	0	0	0	0	0
2/18/2014	100	0	0	0	0	0	0
2/25/2014	100	0	0	0	0	0	0
3/4/2014	100	0	0	0	0	0	0
3/11/2014	100	0	0	0	0	0	0
3/18/2014	100	0	0	0	0	0	0
3/25/2014	100	0	0	0	0	0	0
4/1/2014	100	0	0	0	0	0	0
4/8/2014	100	0	0	0	0	0	0
4/15/2014	100	0	0	0	0	0	0
4/22/2014	100	0	0	0	0	0	0
4/29/2014	100	0	0	0	0	0	0
5/6/2014	100	0	0	0	0	0	0
5/13/2014	100	0	0	0	0	0	0
5/20/2014	100	0	0	0	0	0	0
5/27/2014	100	0	0	0	0	0	0
6/3/2014	100	0	0	0	0	0	0
6/10/2014	100	0	0	0	0	0	0
6/17/2014	100	0	0	0	0	0	0
6/24/2014	92.74	7.26	0	0	0	0	7
7/1/2014	93.07	6.93	0	0	0	0	7
7/8/2014	93.07	6.93	0	0	0	0	7
7/15/2014	76.18	23.82	0	0	0	0	24
7/22/2014	100	0	0	0	0	0	0
7/29/2014	100	0	0	0	0	0	0
8/5/2014	100	0	0	0	0	0	0
8/12/2014	100	0	0	0	0	0	0
8/19/2014	100	0	0	0	0	0	0
8/26/2014	100	0	0	0	0	0	0
9/2/2014	28.77	71.23	0	0	0	0	71
9/9/2014	28.77	71.23	0	0	0	0	71
9/16/2014	28.77	71.23	0	0	0	0	71
9/23/2014	28.77	71.23	0	0	0	0	71
9/30/2014	28.77	71.23	0	0	0	0	71
10/7/2014	30.18	69.82	0	0	0	0	70
10/14/2014	30.87	69.13	0	0	0	0	69
10/21/2014	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/28/2014	0	100	0	0	0	0	100
11/4/2014	0	100	96.05	0	0	0	196
11/11/2014	0	100	96.05	0	0	0	196
11/18/2014	0	100	96.05	0	0	0	196
11/25/2014	0	100	58.52	0	0	0	159
12/2/2014	0	100	95.36	0	0	0	195
12/9/2014	0	100	99.34	0	0	0	199
12/16/2014	0	100	100	0	0	0	200
12/23/2014	0	100	100	0	0	0	200
12/30/2014	0	100	0	0	0	0	100
1/6/2015	0.95	99.05	0	0	0	0	99
1/13/2015	13.24	86.76	0	0	0	0	87
1/20/2015	13.24	86.76	0	0	0	0	87
1/27/2015	13.24	86.76	0	0	0	0	87
2/3/2015	13.24	86.76	0	0	0	0	87
2/10/2015	13.24	86.76	0	0	0	0	87
2/17/2015	13.24	86.76	0	0	0	0	87
2/24/2015	13.24	86.76	0	0	0	0	87
3/3/2015	100	0	0	0	0	0	0
3/10/2015	100	0	0	0	0	0	0
3/17/2015	100	0	0	0	0	0	0
3/24/2015	100	0	0	0	0	0	0
3/31/2015	100	0	0	0	0	0	0
4/7/2015	100	0	0	0	0	0	0
4/14/2015	100	0	0	0	0	0	0
4/21/2015	100	0	0	0	0	0	0
4/28/2015	100	0	0	0	0	0	0
5/5/2015	100	0	0	0	0	0	0
5/12/2015	100	0	0	0	0	0	0
5/19/2015	100	0	0	0	0	0	0
5/26/2015	100	0	0	0	0	0	0
6/2/2015	100	0	0	0	0	0	0
6/9/2015	100	0	0	0	0	0	0
6/16/2015	100	0	0	0	0	0	0
6/23/2015	34.05	65.95	0	0	0	0	66
6/30/2015	34.05	65.95	0	0	0	0	66
7/7/2015	34.05	65.95	0	0	0	0	66
7/14/2015	34.04	65.96	0	0	0	0	66
7/21/2015	33.94	66.06	0	0	0	0	66
7/28/2015	0	100	4.53	0	0	0	105
8/4/2015	0	100	94.53	0	0	0	195
8/11/2015	0	100	94.53	0	0	0	195
8/18/2015	0	100	94.53	0	0	0	195

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/25/2015	0	100	94.53	0	0	0	195
9/1/2015	6.45	93.55	69.93	0	0	0	163
9/8/2015	6.45	93.55	69.93	0	0	0	163
9/15/2015	31.43	68.57	27.93	0	0	0	97
9/22/2015	63.62	36.38	3.86	0	0	0	40
9/29/2015	85.09	14.91	0.34	0	0	0	15
10/6/2015	95.59	4.41	0	0	0	0	4
10/13/2015	95.6	4.4	0	0	0	0	4
10/20/2015	95.6	4.4	0	0	0	0	4
10/27/2015	95.6	4.4	0	0	0	0	4
11/3/2015	100	0	0	0	0	0	0
11/10/2015	100	0	0	0	0	0	0
11/17/2015	100	0	0	0	0	0	0
11/24/2015	100	0	0	0	0	0	0
12/1/2015	100	0	0	0	0	0	0
12/8/2015	100	0	0	0	0	0	0
12/15/2015	100	0	0	0	0	0	0
12/22/2015	100	0	0	0	0	0	0
12/29/2015	100	0	0	0	0	0	0
1/5/2016	100	0	0	0	0	0	0
1/12/2016	100	0	0	0	0	0	0
1/19/2016	100	0	0	0	0	0	0
1/26/2016	100	0	0	0	0	0	0
2/2/2016	100	0	0	0	0	0	0
2/9/2016	100	0	0	0	0	0	0
2/16/2016	100	0	0	0	0	0	0
2/23/2016	100	0	0	0	0	0	0
3/1/2016	100	0	0	0	0	0	0
3/8/2016	100	0	0	0	0	0	0
3/15/2016	100	0	0	0	0	0	0
3/22/2016	99.98	0.02	0	0	0	0	0
3/29/2016	81.07	18.93	0	0	0	0	19
4/5/2016	100	0	0	0	0	0	0
4/12/2016	100	0	0	0	0	0	0
4/19/2016	100	0	0	0	0	0	0
4/26/2016	100	0	0	0	0	0	0
5/3/2016	8.85	91.15	0	0	0	0	91
5/10/2016	8.85	91.15	0	0	0	0	91
5/17/2016	8.85	91.15	0	0	0	0	91
5/24/2016	32.21	67.79	0	0	0	0	68
5/31/2016	52.68	47.32	0	0	0	0	47
6/7/2016	100	0	0	0	0	0	0
6/14/2016	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
6/21/2016	100	0	0	0	0	0	0
6/28/2016	100	0	0	0	0	0	0
7/5/2016	100	0	0	0	0	0	0
7/12/2016	100	0	0	0	0	0	0
7/19/2016	54.26	45.74	0	0	0	0	46
7/26/2016	54.26	45.74	0	0	0	0	46
8/2/2016	54.26	45.74	0	0	0	0	46
8/9/2016	54.26	45.74	0	0	0	0	46
8/16/2016	11.48	88.52	0.05	0	0	0	89
8/23/2016	0	100	1.29	0	0	0	101
8/30/2016	0	100	1.29	0	0	0	101
9/6/2016	98.59	1.41	0	0	0	0	1
9/13/2016	98.59	1.41	0	0	0	0	1
9/20/2016	98.59	1.41	0	0	0	0	1
9/27/2016	15.23	84.77	0	0	0	0	85
10/4/2016	15.41	84.59	0	0	0	0	85
10/11/2016	12.22	87.78	1.02	0	0	0	89
10/18/2016	12.02	87.98	47.32	0	0	0	135
10/25/2016	12.02	87.98	47.32	0	0	0	135
11/1/2016	12.02	87.98	47.32	0	0	0	135
11/8/2016	0	100	54.12	0	0	0	154
11/15/2016	0	100	54.12	0.3	0	0	154
11/22/2016	0	100	100	25.01	0.01	0	225
11/29/2016	0	100	100	99.08	22.78	0	322
12/6/2016	0	100	100	100	40.65	0	341
12/13/2016	0	100	100	100	40.65	0	341
12/20/2016	0	100	100	100	40.65	0	341
12/27/2016	0	100	100	100	40.65	0	341
1/3/2017	0	100	100	0	0	0	200
1/10/2017	0	100	0	0	0	0	100
1/17/2017	0	100	0	0	0	0	100
1/24/2017	100	0	0	0	0	0	0
1/31/2017	100	0	0	0	0	0	0
2/7/2017	100	0	0	0	0	0	0
2/14/2017	100	0	0	0	0	0	0
2/21/2017	100	0	0	0	0	0	0
2/28/2017	100	0	0	0	0	0	0
3/7/2017	100	0	0	0	0	0	0
3/14/2017	100	0	0	0	0	0	0
3/21/2017	37.78	62.22	0	0	0	0	62
3/28/2017	25.14	74.86	0	0	0	0	75
4/4/2017	25.14	74.86	0	0	0	0	75
4/11/2017	25.14	74.86	0	0	0	0	75

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
4/18/2017	0	100	41.61	0	0	0	142
4/25/2017	0	100	41.62	0	0	0	142
5/2/2017	0	100	41.62	0	0	0	142
5/9/2017	0	100	41.62	0	0	0	142
5/16/2017	0	100	41.62	0	0	0	142
5/23/2017	0	100	41.61	0	0	0	142
5/30/2017	0	100	41.61	0	0	0	142
6/6/2017	0	100	27.63	0	0	0	128
6/13/2017	0	100	14.45	0	0	0	114
6/20/2017	0	100	14.45	0	0	0	114
6/27/2017	0	100	0	0	0	0	100
7/4/2017	100	0	0	0	0	0	0
7/11/2017	100	0	0	0	0	0	0
7/18/2017	100	0	0	0	0	0	0
7/25/2017	100	0	0	0	0	0	0
8/1/2017	100	0	0	0	0	0	0
8/8/2017	100	0	0	0	0	0	0
8/15/2017	100	0	0	0	0	0	0
8/22/2017	100	0	0	0	0	0	0
8/29/2017	100	0	0	0	0	0	0
9/5/2017	100	0	0	0	0	0	0
9/12/2017	100	0	0	0	0	0	0
9/19/2017	100	0	0	0	0	0	0
9/26/2017	100	0	0	0	0	0	0
10/3/2017	100	0	0	0	0	0	0
10/10/2017	100	0	0	0	0	0	0
10/17/2017	8.5	91.5	0	0	0	0	92
10/24/2017	8.98	91.02	0	0	0	0	91
10/31/2017	8.98	91.02	0	0	0	0	91
11/7/2017	8.98	91.02	0	0	0	0	91
11/14/2017	0	100	70.41	0	0	0	170
11/21/2017	0	100	70.41	0	0	0	170
11/28/2017	0	100	100	0	0	0	200
12/5/2017	0	100	100	0	0	0	200
12/12/2017	0	100	69.33	0	0	0	169
12/19/2017	0	100	69.33	0	0	0	169
12/26/2017	0	100	64.69	0	0	0	165
1/2/2018	0	100	64.69	0	0	0	165
1/9/2018	0	100	64.69	0	0	0	165
1/16/2018	0	100	60.31	0	0	0	160
1/23/2018	0	100	60.31	0	0	0	160
1/30/2018	0	100	0	0	0	0	100
2/6/2018	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
2/13/2018	0	100	0	0	0	0	100
2/20/2018	0	100	0	0	0	0	100
2/27/2018	0	100	0	0	0	0	100
3/6/2018	0	100	69.14	0	0	0	169
3/13/2018	0	100	100	0	0	0	200
3/20/2018	0	100	77.06	0	0	0	177
3/27/2018	0	100	77.05	0	0	0	177
4/3/2018	0	100	77.05	0	0	0	177
4/10/2018	0	100	100	0	0	0	200
4/17/2018	0	100	100	0	0	0	200
4/24/2018	0	100	100	0	0	0	200
5/1/2018	0	100	92.93	0	0	0	193
5/8/2018	0	100	92.93	0	0	0	193
5/15/2018	0	100	92.93	0	0	0	193
5/22/2018	6.51	93.49	0	0	0	0	93
5/29/2018	100	0	0	0	0	0	0
6/5/2018	100	0	0	0	0	0	0
6/12/2018	100	0	0	0	0	0	0
6/19/2018	100	0	0	0	0	0	0
6/26/2018	100	0	0	0	0	0	0
7/3/2018	100	0	0	0	0	0	0
7/10/2018	100	0	0	0	0	0	0
7/17/2018	100	0	0	0	0	0	0
7/24/2018	100	0	0	0	0	0	0
7/31/2018	100	0	0	0	0	0	0
8/7/2018	100	0	0	0	0	0	0
8/14/2018	100	0	0	0	0	0	0
8/21/2018	100	0	0	0	0	0	0
8/28/2018	100	0	0	0	0	0	0
9/4/2018	33.33	66.67	0	0	0	0	67
9/11/2018	33.33	66.67	0	0	0	0	67
9/18/2018	33.33	66.67	0.05	0	0	0	67
9/25/2018	20.36	79.64	34.8	0	0	0	114
10/2/2018	19.03	80.97	37.54	0	0	0	119
10/9/2018	19.03	80.97	37.54	0	0	0	119
10/16/2018	55.09	44.91	0	0	0	0	45
10/23/2018	55.09	44.91	0	0	0	0	45
10/30/2018	100	0	0	0	0	0	0
11/6/2018	100	0	0	0	0	0	0
11/13/2018	100	0	0	0	0	0	0
11/20/2018	100	0	0	0	0	0	0
11/27/2018	100	0	0	0	0	0	0
12/4/2018	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
12/11/2018	100	0	0	0	0	0	0
12/18/2018	100	0	0	0	0	0	0
12/25/2018	100	0	0	0	0	0	0
1/1/2019	100	0	0	0	0	0	0
1/8/2019	100	0	0	0	0	0	0
1/15/2019	100	0	0	0	0	0	0
1/22/2019	100	0	0	0	0	0	0
1/29/2019	100	0	0	0	0	0	0
2/5/2019	100	0	0	0	0	0	0
2/12/2019	100	0	0	0	0	0	0
2/19/2019	100	0	0	0	0	0	0
2/26/2019	100	0	0	0	0	0	0
3/5/2019	100	0	0	0	0	0	0
3/12/2019	0	100	0	0	0	0	100
3/19/2019	0	100	0	0	0	0	100
3/26/2019	0	100	0	0	0	0	100
4/2/2019	0	100	29.79	0	0	0	130
4/9/2019	0	100	14.07	0	0	0	114
4/16/2019	0	100	14.08	0	0	0	114
4/23/2019	0	100	14.08	0	0	0	114
4/30/2019	0	100	17.02	0	0	0	117
5/7/2019	0	100	17.02	0	0	0	117
5/14/2019	0	100	15.77	0	0	0	116
5/21/2019	0	100	15.77	0	0	0	116
5/28/2019	0	100	15.77	0	0	0	116
6/4/2019	0	100	66.3	0	0	0	166
6/11/2019	0	100	1.75	0	0	0	102
6/18/2019	97.89	2.11	0	0	0	0	2
6/25/2019	100	0	0	0	0	0	0
7/2/2019	100	0	0	0	0	0	0
7/9/2019	100	0	0	0	0	0	0
7/16/2019	100	0	0	0	0	0	0
7/23/2019	100	0	0	0	0	0	0
7/30/2019	100	0	0	0	0	0	0
8/6/2019	99.57	0.43	0	0	0	0	0
8/13/2019	17.71	82.29	0	0	0	0	82
8/20/2019	97.07	2.93	0	0	0	0	3
8/27/2019	100	0	0	0	0	0	0
9/3/2019	91.1	8.9	0	0	0	0	9
9/10/2019	91.1	8.9	0	0	0	0	9
9/17/2019	90.37	9.63	0	0	0	0	10
9/24/2019	0	100	0.01	0	0	0	100
10/1/2019	0	100	0.01	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/8/2019	0	100	100	0	0	0	200
10/15/2019	0	100	100	4.48	0	0	204
10/22/2019	0	100	100	0.05	0	0	200
10/29/2019	0	100	100	0.05	0	0	200
11/5/2019	0	100	69.75	0	0	0	170
11/12/2019	29.51	70.49	0	0	0	0	70
11/19/2019	99.99	0.01	0	0	0	0	0
11/26/2019	99.99	0.01	0	0	0	0	0
12/3/2019	100	0	0	0	0	0	0
12/10/2019	100	0	0	0	0	0	0
12/17/2019	100	0	0	0	0	0	0
12/24/2019	100	0	0	0	0	0	0
12/31/2019	100	0	0	0	0	0	0
1/7/2020	100	0	0	0	0	0	0
1/14/2020	100	0	0	0	0	0	0
1/21/2020	100	0	0	0	0	0	0
1/28/2020	100	0	0	0	0	0	0
2/4/2020	100	0	0	0	0	0	0
2/11/2020	100	0	0	0	0	0	0
2/18/2020	100	0	0	0	0	0	0
2/25/2020	100	0	0	0	0	0	0
3/3/2020	100	0	0	0	0	0	0
3/10/2020	100	0	0	0	0	0	0
3/17/2020	100	0	0	0	0	0	0
3/24/2020	100	0	0	0	0	0	0
3/31/2020	100	0	0	0	0	0	0
4/7/2020	100	0	0	0	0	0	0
4/14/2020	100	0	0	0	0	0	0
4/21/2020	100	0	0	0	0	0	0
4/28/2020	100	0	0	0	0	0	0
5/5/2020	100	0	0	0	0	0	0
5/12/2020	100	0	0	0	0	0	0
5/19/2020	100	0	0	0	0	0	0
5/26/2020	100	0	0	0	0	0	0
6/2/2020	100	0	0	0	0	0	0
6/9/2020	100	0	0	0	0	0	0
6/16/2020	100	0	0	0	0	0	0
6/23/2020	100	0	0	0	0	0	0
6/30/2020	100	0	0	0	0	0	0
7/7/2020	100	0	0	0	0	0	0
7/14/2020	100	0	0	0	0	0	0
7/21/2020	35.08	64.92	0	0	0	0	65
7/28/2020	22.92	77.08	0	0	0	0	77

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/4/2020	8.45	91.55	0	0	0	0	92
8/11/2020	99.03	0.97	0	0	0	0	1
8/18/2020	100	0	0	0	0	0	0
8/25/2020	100	0	0	0	0	0	0
9/1/2020	100	0	0	0	0	0	0
9/8/2020	100	0	0	0	0	0	0
9/15/2020	100	0	0	0	0	0	0
9/22/2020	100	0	0	0	0	0	0
9/29/2020	100	0	0	0	0	0	0
10/6/2020	100	0	0	0	0	0	0
10/13/2020	100	0	0	0	0	0	0
10/20/2020	100	0	0	0	0	0	0
10/27/2020	96.1	3.9	0	0	0	0	4
11/3/2020	86.39	13.61	0	0	0	0	14
11/10/2020	83.96	16.04	0	0	0	0	16
11/17/2020	84.24	15.76	0	0	0	0	16
11/24/2020	0	100	0	0	0	0	100
12/1/2020	0	100	0	0	0	0	100
12/8/2020	0	100	0	0	0	0	100
12/15/2020	0	100	0	0	0	0	100
12/22/2020	0	100	0	0	0	0	100
12/29/2020	0	100	0	0	0	0	100
1/5/2021	100	0	0	0	0	0	0
1/12/2021	100	0	0	0	0	0	0
1/19/2021	100	0	0	0	0	0	0
1/26/2021	100	0	0	0	0	0	0
2/2/2021	100	0	0	0	0	0	0
2/9/2021	100	0	0	0	0	0	0
2/16/2021	100	0	0	0	0	0	0
2/23/2021	100	0	0	0	0	0	0
3/2/2021	100	0	0	0	0	0	0
3/9/2021	100	0	0	0	0	0	0
3/16/2021	100	0	0	0	0	0	0
3/23/2021	100	0	0	0	0	0	0
3/30/2021	100	0	0	0	0	0	0
4/6/2021	100	0	0	0	0	0	0
4/13/2021	100	0	0	0	0	0	0
4/20/2021	0	100	0	0	0	0	100
4/27/2021	0	100	0	0	0	0	100
5/4/2021	0	100	0	0	0	0	100
5/11/2021	100	0	0	0	0	0	0
5/18/2021	100	0	0	0	0	0	0
5/25/2021	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
6/1/2021	90.63	9.37	0	0	0	0	9
6/8/2021	100	0	0	0	0	0	0
6/15/2021	100	0	0	0	0	0	0
6/22/2021	100	0	0	0	0	0	0
6/29/2021	100	0	0	0	0	0	0
7/6/2021	100	0	0	0	0	0	0
7/13/2021	100	0	0	0	0	0	0
7/20/2021	100	0	0	0	0	0	0
7/27/2021	100	0	0	0	0	0	0
8/3/2021	100	0	0	0	0	0	0
8/10/2021	100	0	0	0	0	0	0
8/17/2021	100	0	0	0	0	0	0
8/24/2021	100	0	0	0	0	0	0
8/31/2021	100	0	0	0	0	0	0
9/7/2021	100	0	0	0	0	0	0
9/14/2021	100	0	0	0	0	0	0
9/21/2021	100	0	0	0	0	0	0
9/28/2021	100	0	0	0	0	0	0
10/5/2021	100	0	0	0	0	0	0
10/12/2021	100	0	0	0	0	0	0
10/19/2021	96.85	3.15	0	0	0	0	3
10/26/2021	58.35	41.65	0	0	0	0	42
11/2/2021	58.35	41.65	0	0	0	0	42
11/9/2021	59.51	40.49	0	0	0	0	40
11/16/2021	57.28	42.72	0	0	0	0	43
11/23/2021	0.53	99.47	0	0	0	0	99
11/30/2021	0	100	0	0	0	0	100
12/7/2021	0	100	100	0	0	0	200
12/14/2021	0	100	57.55	0	0	0	158
12/21/2021	34.72	65.28	0	0	0	0	65
12/28/2021	24.79	75.21	0	0	0	0	75
1/4/2022	100	0	0	0	0	0	0
1/11/2022	100	0	0	0	0	0	0
1/18/2022	100	0	0	0	0	0	0
1/25/2022	100	0	0	0	0	0	0
2/1/2022	100	0	0	0	0	0	0
2/8/2022	100	0	0	0	0	0	0
2/15/2022	100	0	0	0	0	0	0
2/22/2022	100	0	0	0	0	0	0
3/1/2022	11.85	88.15	0	0	0	0	88
3/8/2022	0	100	0	0	0	0	100
3/15/2022	0	100	0	0	0	0	100
3/22/2022	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
3/29/2022	0	100	96.3	0	0	0	196
4/5/2022	0	100	96.3	0	0	0	196
4/12/2022	0	100	5.48	0	0	0	105
4/19/2022	0	100	5.48	0	0	0	105
4/26/2022	0	100	5.48	0	0	0	105
5/3/2022	0	100	7.37	0	0	0	107
5/10/2022	0	100	7.37	0	0	0	107
5/17/2022	0	100	7.37	0	0	0	107
5/24/2022	84.69	15.31	0	0	0	0	15
5/31/2022	84.69	15.31	0	0	0	0	15
6/7/2022	84.69	15.31	0	0	0	0	15
6/14/2022	0	100	4.39	0	0	0	104
6/21/2022	0	100	11.45	0	0	0	111
6/28/2022	0	100	60.18	0	0	0	160
7/5/2022	39.26	60.74	0.01	0	0	0	61
7/12/2022	34.98	65.02	0	0	0	0	65
7/19/2022	99.19	0.81	0	0	0	0	1
7/26/2022	100	0	0	0	0	0	0
8/2/2022	100	0	0	0	0	0	0
8/9/2022	95.08	4.92	0	0	0	0	5
8/16/2022	100	0	0	0	0	0	0
8/23/2022	100	0	0	0	0	0	0
8/30/2022	100	0	0	0	0	0	0
9/6/2022	100	0	0	0	0	0	0
9/13/2022	100	0	0	0	0	0	0
9/20/2022	100	0	0	0	0	0	0
9/27/2022	100	0	0	0	0	0	0
10/4/2022	100	0	0	0	0	0	0
10/11/2022	0	100	0	0	0	0	100
10/18/2022	100	0	0	0	0	0	0
10/25/2022	100	0	0	0	0	0	0
11/1/2022	92.94	7.06	0	0	0	0	7
11/8/2022	60.37	39.63	5.27	0	0	0	45
11/15/2022	67.25	32.75	5.27	0	0	0	38
11/22/2022	67.25	32.75	5.27	0	0	0	38
11/29/2022	67.99	32.01	5.27	0	0	0	37
12/6/2022	73.6	26.4	0	0	0	0	26
12/13/2022	73.6	26.4	0	0	0	0	26
12/20/2022	81.05	18.95	0	0	0	0	19
12/27/2022	81.05	18.95	0	0	0	0	19
1/3/2023	81.05	18.95	0	0	0	0	19
1/10/2023	98.56	1.44	0	0	0	0	1
1/17/2023	98.56	1.44	0	0	0	0	1

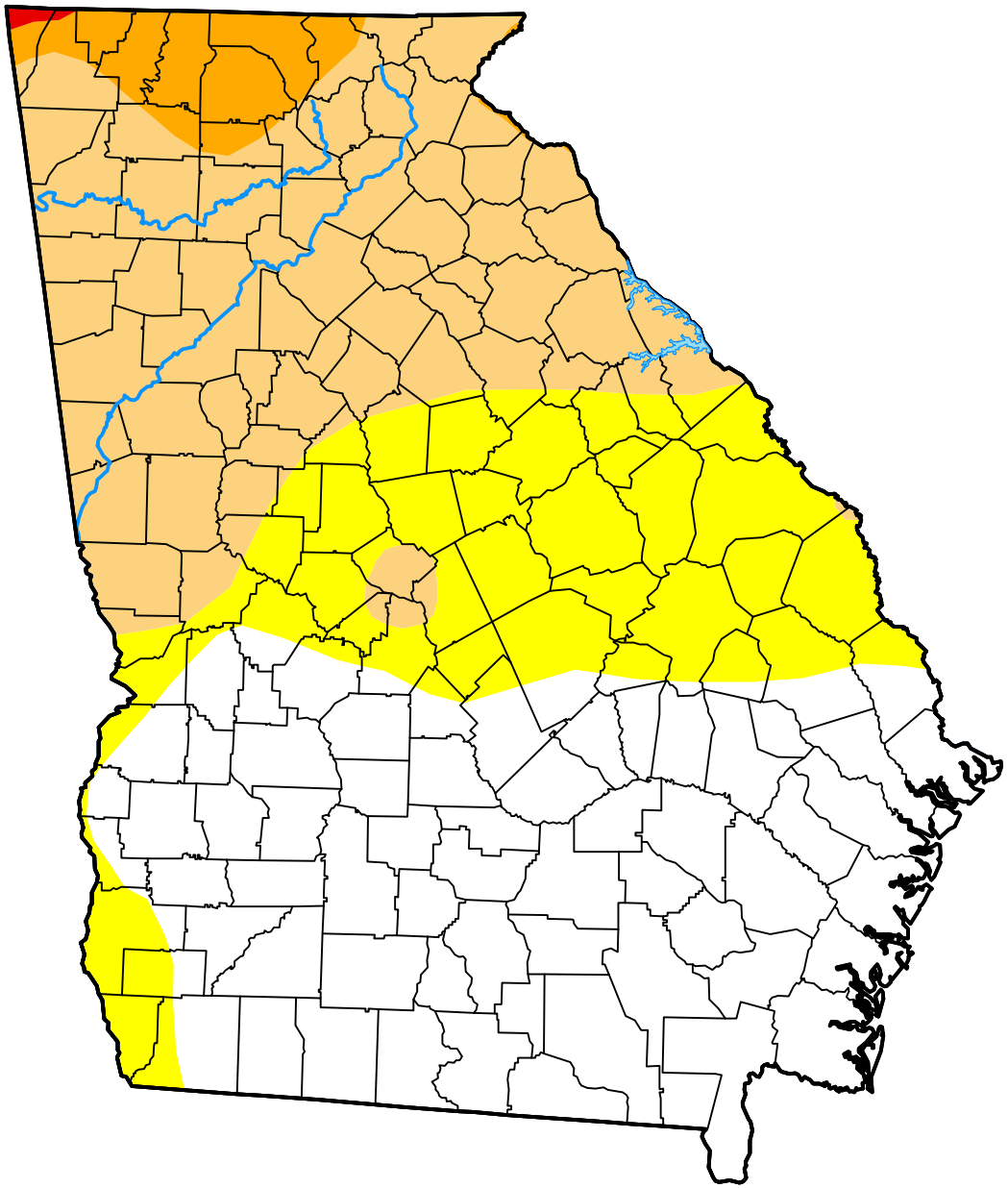
Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
1/24/2023	100	0	0	0	0	0	0
1/31/2023	100	0	0	0	0	0	0
2/7/2023	100	0	0	0	0	0	0
2/14/2023	100	0	0	0	0	0	0
2/21/2023	100	0	0	0	0	0	0
2/28/2023	100	0	0	0	0	0	0
3/7/2023	100	0	0	0	0	0	0
3/14/2023	100	0	0	0	0	0	0
3/21/2023	100	0	0	0	0	0	0
3/28/2023	100	0	0	0	0	0	0
4/4/2023	100	0	0	0	0	0	0
4/11/2023	100	0	0	0	0	0	0
4/18/2023	100	0	0	0	0	0	0
4/25/2023	100	0	0	0	0	0	0
5/2/2023	100	0	0	0	0	0	0
5/9/2023	100	0	0	0	0	0	0
5/16/2023	100	0	0	0	0	0	0
5/23/2023	100	0	0	0	0	0	0
5/30/2023	100	0	0	0	0	0	0
6/6/2023	100	0	0	0	0	0	0
6/13/2023	100	0	0	0	0	0	0
6/20/2023	100	0	0	0	0	0	0
6/27/2023	100	0	0	0	0	0	0
7/4/2023	100	0	0	0	0	0	0
7/11/2023	100	0	0	0	0	0	0
7/18/2023	100	0	0	0	0	0	0
7/25/2023	100	0	0	0	0	0	0
8/1/2023	100	0	0	0	0	0	0
8/8/2023	100	0	0	0	0	0	0
8/15/2023	100	0	0	0	0	0	0
8/22/2023	100	0	0	0	0	0	0
8/29/2023	100	0	0	0	0	0	0
9/5/2023	100	0	0	0	0	0	0
9/12/2023	100	0	0	0	0	0	0
9/19/2023	100	0	0	0	0	0	0
9/26/2023	100	0	0	0	0	0	0
10/3/2023	100	0	0	0	0	0	0
10/10/2023	100	0	0	0	0	0	0
10/17/2023	100	0	0	0	0	0	0
10/24/2023	100	0	0	0	0	0	0
10/31/2023	100	0	0	0	0	0	0
11/7/2023	100	0	0	0	0	0	0
11/14/2023	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
11/21/2023	100	0	0	0	0	0	0
11/28/2023	100	0	0	0	0	0	0
12/5/2023	100	0	0	0	0	0	0
12/12/2023	100	0	0	0	0	0	0
12/19/2023	100	0	0	0	0	0	0
12/26/2023	100	0	0	0	0	0	0
1/2/2024	100	0	0	0	0	0	0
1/9/2024	100	0	0	0	0	0	0
1/16/2024	100	0	0	0	0	0	0
1/23/2024	100	0	0	0	0	0	0
1/30/2024	100	0	0	0	0	0	0
2/6/2024	100	0	0	0	0	0	0
2/13/2024	100	0	0	0	0	0	0
2/20/2024	100	0	0	0	0	0	0
2/27/2024	100	0	0	0	0	0	0
3/5/2024	100	0	0	0	0	0	0
3/12/2024	100	0	0	0	0	0	0
3/19/2024	100	0	0	0	0	0	0
3/26/2024	100	0	0	0	0	0	0
4/2/2024	100	0	0	0	0	0	0
4/9/2024	100	0	0	0	0	0	0
4/16/2024	100	0	0	0	0	0	0
4/23/2024	100	0	0	0	0	0	0
4/30/2024	100	0	0	0	0	0	0
5/7/2024	100	0	0	0	0	0	0
5/14/2024	100	0	0	0	0	0	0
5/21/2024	100	0	0	0	0	0	0
5/28/2024	100	0	0	0	0	0	0
6/4/2024	100	0	0	0	0	0	0
6/11/2024	100	0	0	0	0	0	0
6/18/2024	100	0	0	0	0	0	0
6/25/2024	0	100	0	0	0	0	100
7/2/2024	0	100	70.15	0	0	0	170
7/9/2024	28.9	71.1	45.41	0	0	0	117
7/16/2024	28.9	71.1	46.25	0	0	0	117
7/23/2024	53.75	46.25	0	0	0	0	46
7/30/2024	100	0	0	0	0	0	0
8/6/2024	100	0	0	0	0	0	0
8/13/2024	100	0	0	0	0	0	0
8/20/2024	100	0	0	0	0	0	0
8/27/2024	100	0	0	0	0	0	0
9/3/2024	100	0	0	0	0	0	0
9/10/2024	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
9/17/2024	0	100	0	0	0	0	100
9/24/2024	0	100	0	0	0	0	100
10/1/2024	100	0	0	0	0	0	0
10/8/2024	100	0	0	0	0	0	0
10/15/2024	100	0	0	0	0	0	0
10/22/2024	100	0	0	0	0	0	0
10/29/2024	0	100	0	0	0	0	100
11/5/2024	0	100	0	0	0	0	100
11/12/2024	100	0	0	0	0	0	0
11/19/2024	100	0	0	0	0	0	0

U.S. Drought Monitor

Georgia



September 17, 2024

(Released Thursday, Sep. 19, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.18	56.82	34.07	4.03	0.12	0.00
Last Week *09-10-2024*	31.27	68.73	40.27	1.71	0.00	0.00
3 Months Ago *06-18-2024*	65.42	34.58	1.54	0.00	0.00	0.00
Start of Calendar Year *01-02-2024*	46.66	53.34	28.92	11.91	0.07	0.00
Start of Water Year *09-26-2023*	78.43	21.57	4.17	0.00	0.00	0.00
One Year Ago *09-19-2023*	83.52	16.48	1.62	0.00	0.00	0.00

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

Author:

Brad Rippey

U.S. Department of Agriculture

droughtmonitor.unl.edu

Wildfire

Jefferson County has a total area of 339,200 acres of which 14,847 acres (4.4%) dedicated to agricultural and 287,186 acres (84.5%) dedicated to forestry. Given the right weather conditions and variables, wildfire, due to natural causes, creates a potential threat to the lives of residents and property in the planning area. The NCEI has never reported a significant wildfire event in Jefferson County.

The committee reviewed historical data from the Georgia Forestry Commission, which is not found in the NCEI database, to research wildfire events in Jefferson County. The GFC provides wildfire data on man-made 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 2022, there have been 3,104 fire events burning a total of 17,277 acres for an average extent of 5.56 acres. Of these 3,104 fire events 168 were a result of lightning strikes that burned 1,505 acres. Based on best available data 180 wildfire events as a result of lightning occurred in the unincorporated areas of the county. While data was collected looking at 60 years of data, frequency rate was calculated using a 20-year hazard cycle per guidance from GEMA. Based on a 20-year hazard cycle there is a 276% chance of an annual wildfire due to a lightning strike or statistically the county can expect 4 wildfires as a result of lightning annually.

The GMIS has 15 critical facilities with a hazard score of four (high), 78 with a hazards score of three (moderate), 12 with a hazard score of 2 (low) and four with a hazard score of one (very low probability). The remaining 22 critical facilities have a hazard score of zero. The 109 critical facilities with a wildfire hazard score greater than zero have an estimated potential loss of more than $307 million. The loss for all critical facilities is $393,112,262. According to FEMA Worksheet #3a there are 40,626 structures/properties with a population of 16,930 with a value of slightly less than $1.3 billion worth of assets countywide.

Jefferon County Wildfire by number of Acres										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1957	413.41	0	11	67.1	194.21	130.3	0	0	0	10.8
1958	533.8	10.14	97.12	115.81	56.83	143.84	81.72	0	0	28.34
1959	443.74	0	5	131.61	21.89	179.95	3.79	0	0	101.5
1960	543.54	19.04	0.92	41.78	100.2	236.32	0.67	0	0	144.61
1961	420.3	0	20.77	38.62	59.8	290.24	0.81	1.89	0	8.17
1962	412.22	16.59	12.05	0	78.88	268.38	36.32	0	0	0
1963	201.7	0	13.48	0	67.97	107.82	0	12.43	0	0
1964	218.27	0	39.95	0	95.85	57.64	24.83	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	747.03	0	1.24	0	159.08	117.98	461.23	7.5	0	0
1967	315.77	0	12.33	0	60.8	161.7	48.16	32.78	0	0
1968	262.85	7.91	11.26	0	27.02	126.85	82.25	7.56	0	0
1969	259.42	1.38	28.18	0	62.5	126.13	16.24	24.99	0	0
1970	139.94	28.19	12.45	9.27	15.67	70.51	1.47	2.38	0	0
1971	102.15	0	0.94	0	13.31	59.94	25.69	2.27	0	0
1972	140.04	4.66	2.92	0	41.36	56.16	32.56	2.38	0	0
1973	237.89	4.76	1.35	0	83.68	131.67	12.87	3.56	0	0
1974	222.75	8.21	13.63	0	48.98	125.09	20.92	5.92	0	0
1975	130.91	33.32	11.87	0	11.83	45.55	22.13	4.51	0.14	1.56
1976	205.18	9.48	21.72	0	9.67	143.9	19.9	0	0.51	0
1977	232.25	63.11	69.93	0	34.14	45.11	2.31	0	11.22	6.43
1978	217.14	2.34	20.38	0	8.18	172.47	2.26	0	0	11.51
1979	161.73	0	1.78	0.07	20.91	129.41	9.56	0	0	0
1980	392.81	3.42	5.27	0.13	39.39	336.93	5.22	0	0	2.45
1981	210.83	5.16	5.09	0	8.04	145.57	15.88	0	2.02	29.07
1982	92.61	0	44.51	0	11.66	17.11	2.71	0	0	16.62
1983	183.74	15.41	35.04	0.93	1.52	123.79	1.35	0	0	5.7
1984	183.64	0	55.92	0	19.51	32.2	0	0	0	76.01
1985	346.92	62.6	4.35	0	69.15	105.26	11.64	64.19	1.12	28.61
1986	161.64	47.07	9.58	0.84	31.27	48.48	0	0	7.88	16.52
1987	158.35	36.48	9.4	0	50.46	36.05	0.26	0.45	0	25.25

Jefferon County Wildfire by number of Acres										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1988	177.73	23.7	0	0	9.32	129.83	2.94	0	5.3	6.64
1989	99.14	0	0	0	39.55	55.3	0	0	0.45	3.84
1990	186.05	37.45	0.12	0	36.95	47.92	0.83	0	5.58	57.2
1991	295.07	0	0.79	0	12.65	114.22	82.22	1.77	0	83.42
1992	182.2	1.74	0	0	0	29.98	143.91	0	0	6.57
1993	372.05	196.21	12.26	0	5.76	147.6	0	0	1.81	8.41
1994	143.15	47.05	36.19	0	13.49	43.24	0.34	0	2.08	0.76
1995	109.18	21.86	0	0	26.32	37.78	0	0	6.13	17.09
1996	173.59	0.79	8.18	0	16.76	69.27	1.89	0	0	76.7
1997	202.84	0.66	20.62	0	32.79	100.43	20.09	0	0	28.25
1998	181.56	33.69	10.3	0	12.58	119.54	4.64	0	0	0.81
1999	241.71	35.06	2.05	0	74.8	105.67	18.94	0	1.5	3.69
1987	158.35	36.48	9.4	0	50.46	36.05	0.26	0.45	0	25.25
1988	177.73	23.7	0	0	9.32	129.83	2.94	0	5.3	6.64
1989	99.14	0	0	0	38.43	55.3	1.12	0	0.45	3.84
1990	186.05	37.45	0.12	0	36.95	47.92	25.28	0	5.58	32.75
1991	295.07	0	0.79	0	12.65	114.22	82.22	1.77	0	83.42
1992	182.2	1.74	0	0	0	29.98	143.91	0	0	6.57
1993	372.05	196.21	12.26	0	5.76	147.6	0.03	0	1.81	8.38
1994	143.15	47.05	36.19	0	12.48	43.24	1.59	0	1.84	0.76
1995	109.18	21.86	0	0	26.32	37.78	0	0	6.13	17.09
1996	173.59	0.79	8.18	0	16.76	69.27	1.89	0	0	76.7
1997	202.84	0.66	20.62	0	32.79	100.43	20.09	0	0	28.25
1998	181.56	33.69	10.3	0	12.58	119.54	4.64	0	0	0.81
1999	326.61	61.1	4.96	0.6	78.48	126.41	47.12	0	0.68	7.26
2000	262.55	24.48	108.05	0	3.31	93.52	0.1	0	0.56	32.53
2001	221.93	64.91	38.52	0	3.77	100.06	0	0	4.7	9.97
2002	333.93	55.29	22.82	11.22	10.18	79.59	5.32	0	0.11	149.4
2003	37.01	3.1	2.41	0	0	29.09	0	0	0	2.41
2004	245.47	19.13	35.05	0	1.4	182.92	0.15	0	3.72	3.1
2005	171.89	0.67	42.59	0	0	86.36	0	9.3	2.36	30.61

Jefferon County Wildfire by number of Acres										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
2006	233.34	4.2	98	1.56	5.88	93.72	0.01	0.22	0.9	28.85
2007	223.88	19.86	42.55	2.91	0	60.81	40.12	0.37	1.67	55.59
2008	234.22	7.66	30.94	0	3.33	178.97	0	0	0.97	12.35
2009	137.13	0.74	9.16	0	0	123.47	0.52	0	0.03	3.21
2010	165.06	9.01	6.26	20.58	0	122.42	0.2	0	1.5	5.09
2011	266.61	34.18	96.63	0.52	0.02	106.03	0	1.9	4.77	22.56
2012	99.05	23.06	2.17	0	0	45.34	0	4.13	0.58	23.77
2013	100.8	0	7.65	0.01	0	69.44	0.79	7.64	2.3	12.97
2014	233.51	2.79	56.59	5.26	0	100.97	1.7	0	0.4	65.8
2015	112.54	0	7.31	0	0	56.54	0	0	0	48.69
2016	87.24	16.57	8.2	0	0	19.06	0	1.99	0.28	41.14
2017	154.84	0.51	0	1.25	0	147.01	0	0	0.61	5.46
2018	126.09	18.6	0.75	0.5	0	81.3	0	0	0	24.94
2019	318.51	127.5	5.63	0	3.3	146.68	0	8.82	0	26.58
2020	33.41	7.3	0.51	3.8	0	13.8	0.25	0.2	0.1	7.45
2021	138.49	0	56.78	0	0	77.91	2.1	0	1.1	0.6
2022	74.4	0	26.66	0.87	0	29.06	0	0	9.03	8.78
	17276.26	1677.77								

Jefferson County Wildfire by Number										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1957	41	0	1	6	8	23	0	0	0	3
1958	44	1	3	12	10	10	5	0	0	3
1959	35	0	1	3	5	18	2	0	0	6
1960	55	1	2	4	12	28	1	0	0	7
1961	60	0	3	8	11	32	1	1	0	4
1962	49	5	3	0	16	24	1	0	0	0
1963	47	0	4	0	18	22	0	3	0	0
1964	40	0	5	0	14	20	1	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	76	0	2	0	17	28	27	2	0	0
1967	54	0	6	0	14	18	15	1	0	0
1968	53	1	5	0	7	30	7	3	0	0
1969	51	2	4	0	14	23	3	5	0	0
1970	39	4	3	1	4	24	1	2	0	0
1971	29	0	1	0	3	18	3	4	0	0
1972	45	2	2	0	10	24	5	2	0	0
1973	53	1	2	0	10	26	12	2	0	0
1974	59	1	5	0	7	32	8	6	0	0
1975	45	1	5	0	5	22	8	1	2	1
1976	61	3	11	0	3	37	5	0	2	0
1977	51	5	10	0	9	21	1	0	1	4
1978	54	2	9	0	6	31	3	0	0	3
1979	43	0	3	1	10	22	7	0	0	0
1980	46	2	4	1	9	27	1	0	0	2
1981	61	1	6	0	5	33	8	0	2	6
1982	24	0	4	0	5	11	1	0	0	3
1983	57	3	29	1	3	17	1	0	0	3
1984	43	0	9	0	9	22	0	0	0	3
1985	58	2	2	0	13	30	2	4	1	4
1986	44	10	5	1	7	12	0	0	2	7
1987	55	8	2	0	13	22	1	1	0	8

Jefferson County Wildfire by Number										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1988	39	2	0	0	4	25	1	0	3	4
1989	24	0	0	0	6	14	1	0	1	2
1990	51	4	1	0	9	19	2	0	3	13
1991	35	0	1	0	2	22	5	3	0	2
1992	20	1	0	0	0	11	4	0	0	4
1993	62	15	6	0	4	25	1	0	3	8
1994	33	1	2	0	5	18	4	0	1	2
1995	39	5	0	0	6	20	0	0	2	6
1996	44	3	4	0	7	26	1	0	0	3
1997	40	1	4	0	3	23	4	0	0	5
1998	34	4	4	0	6	17	2	0	0	1
1999	69	3	3	1	13	28	15	0	1	5
2000	34	5	6	0	2	12	1	0	1	7
2001	39	2	5	0	5	20	0	0	2	5
2002	56	14	4	1	3	15	3	0	1	15
2003	13	1	1	0	0	9	0	0	0	2
2004	69	2	13	0	1	41	1	0	3	8
2005	72	3	26	0	0	28	0	1	2	12
2006	101	5	23	2	4	47	1	1	6	12
2007	92	7	19	2	0	38	9	1	3	13
2008	74	6	18	0	2	38	0	0	3	7
2009	41	4	6	0	0	26	1	0	1	3
2010	60	4	10	3	0	28	1	0	5	9
2011	112	13	17	2	2	42	0	1	13	22
2012	48	8	5	0	0	20	0	2	3	10
2013	41	0	5	1	0	26	1	2	1	5
2014	71	2	6	2	0	36	1	0	2	22
2015	30	0	3	0	0	16	0	0	0	11
2016	45	2	6	0	0	18	0	4	2	13
2017	28	2	0	1	0	16	0	0	1	8
2018	23	2	2	1	0	12	0	0	0	6

Jefferson County Wildfire by Number										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
2019	28	3	3	0	1	11	0	4	0	6
2020	16	1	2	1	0	6	1	1	1	3
2021	20	0	2	0	0	12	1	0	1	4
2022	29	0	7	1	0	16	0	0	1	4
	3104	180								

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Avera city	Avera City Hall	3	312500	2024	1000	200000	2024	0	Government, Government,	Essential	1	0
Avera city	Avera Fire Station	3	100000	2024	4250	200000	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Avera city	Avera Water Tank	3	325000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0
			$ 737,500.00			$ 400,000.00						
Bartow town	Bartow Wastewater Sewage Effluent Pump Station	1	$ 63,700.00	2024	100	$ -	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow wastewater Lift Station #1	2	70300	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Wastewater Lift Station #2	2	71400	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Bartow town	Bartow Wastewater Sewage Holding Pond	2	46400	2024	13509		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Wastewater Sewage Treatment Pond	2	50400	2024	10307	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			$ 238,500.00		24016							
Bartow town	Bartow City Hall	3	209300	2024	1920	53500	2024	0	Government, Government, Private, Private	Economic Assets, Essential, Important, Lifeline	3	1
Bartow town	Bartow Museum	3	826847	2024	2450		2024	0	Government, Government, Water/Sewer, Water/Sewer	Historic Consideration	1	0
Bartow town	Bartow Wastewater Lift Station #4	3	60500	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Wastewater Lift Station #5	3	90200	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Bartow town	Bartow Water Well #2	3	119700	2024	275	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			$ 1,306,547.00			$ 53,500.00						
Bartow town	Bartow Community Center & Auditorium	4	1342200	2024	11232	250000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets	1	1
Bartow town	Bartow Fire Dept & Communications Bldg	4	17100	2024	64	60000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline, Special Consideration	0	0
Bartow town	Bartow Fire Dept and Emergency Shelter	4	330630	2024	7500	38500	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets, Essential, Important, Lifeline	1	1
Bartow town	Bartow Wastewater Lift Station #3	4	69000	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Water Tower	4	393000	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Bartow town	Bartow Water Well	4	111800	2024	275	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			$ 2,263,730.00			$ 348,500.00						
Jefferson County	Hillcrest Station	0	45700	2024	5068		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	
Jefferson County	Jefferson County High School	0	55000000	2024	179142	2200000	2024	0	Medical, Medical, Hospital, Hospital	Economic Assets, Essential, Vulnerable Population	937	0
Jefferson County	Jefferson County Leisure Center	0	586170	2024	4924	86000	2024	0	Government, Government, Non-Profit, Non-Profit	Essential, Special Consideration, Vulnerable Population	75	0
Jefferson County	National Guard Equipment Shed 1	0	292900	2024			2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	Oconee Fall Line Technical College	0	1930505	2024	10000	7500	2024	0	Education, Education, VoTech, VoTech	Economic Assets, Important, Vulnerable Population	75	75

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Tax Commissioners Office	0	825500	2024		323000	2024	0	Government, Government, Government Offices, Government Offices	Essential	20	
	6		$ 58,680,775.00			$ 2,616,500.00					0	
											0	
Jefferson County	JEFFERSON CO-US 1 (AVERA RD) (SL)	1	$ 1,500,000.00	2024	########	5,233,000.00	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important		
Jefferson County	Jefferson County Middle School	2	2100000	2024			2024	0	Education, Education, K - 12, K - 12	Essential	500	
Jefferson County	Lions Club Evac. Center	2	12000	2024	1000		2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Historic Consideration	8	
			$ 2,112,000.00		1,000.00							
Jefferson County	1st Baptist Church Evac Center	3	3500000	2024	45075		2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Important, Special Consideration	0	0
Jefferson County	Carver Elementary	3	12750000	2024	6600	510000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Choices Academy	3	15250000	2024			2024	0	Education, Education, K - 12, K - 12		250	
Jefferson County	Hardeman Building (Swann)	3	250000	2024	8278	17000	2024	0	Medical, Medical, EMS, EMS	Historic Consideration, Important, Special Consideration	1	0
Jefferson County	JC Fire TowerShop/Supply Building	3	241236	2024	4072	9800	2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential	4	
Jefferson County	JC Building Department	3	51090	2024	1000	17500	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important	3	
Jefferson County	JC Radio Tower	3	27885	2024	100	8000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Jefferson County	Jefferson County Library	3	66085	2024	5000	848000	2024	0	Education, Education, Library, Library	Important	10	0
Jefferson County	Jefferson Co. Correction Facility	3	5261231	2024	42446	833800	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	200	200

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Jefferson Co. Law Enforcement Center	3	8041785	2024	39892	1139700	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	225	225
Jefferson County	Jefferson County Armory Transit EMA	3	2380171	2024	14040	724500	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	10	4
Jefferson County	Jefferson County Bus Shop	3	750000	2024	4920	140000	2024	0	Medical, Medical, Hospital, Hospital	Important	5	0
Jefferson County	Jefferson County Chamber of Commerce/Murphy House	3	361433	2024	3281	122700	2024	0	Law Enforcement, Law Enforcement, Jails, Jails	Historic Consideration, Important	8	0
Jefferson County	Jefferson County Commissioners Office/Long House	3	339300	2024	3080	110300	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	30	0
Jefferson County	Jefferson County Courthouse	3	5147708	2024	6065	125000	2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Historic Consideration	25	

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Jefferson County Health Dept	3	841815	2024	6341	191700	2024	0	Education, Education, Private, Private	Essential	20	
Jefferson County	Jefferson County Landfill (New)	3	1062166	2024	15000	363200	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Hazardous Materials, Important	6	
Jefferson County	Jefferson County Magistrate	3	24001242	2024	22000	8400	2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential	20	0
Jefferson County	Jefferson County Office Park	3	23500000	2024	81642	940000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	45	0
Jefferson County	Jefferson Hospital	3	97000000	2024	76000		2024	0	Medical, Medical, Hospital, Hospital	Essential, Lifeline, Vulnerable Population	200	150
Jefferson County	Louisville Academy Elementary	3	15250000	2024	25047	610000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Economic Assets, Essential, Vulnerable Population	568	0
Jefferson County	Louisville EMS/Morgue	3	600000	2024		300000	2024	0	Emergency Services, Emergency Services, EMS, EMS	Essential	30	10
Jefferson County	Matthews Station	3	47500	2024	2052		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	National Guard Equipment Shed 2	3	338500	2024			2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	National Guard Garage (Road Dept)	3	461800	2024		209000	2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	National Guard Shop	3	470400	2024		470400	2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	Ogeechee Service Center	3	900000	2024	10650		2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	50	0
Jefferson County	Old County Jail/IT/Purchasing	3	500000	2024	7742	28000	2024	0	Law Enforcement, Law Enforcement, Jails, Jails	Essential, Historic Consideration	1	0
Jefferson County	Physicians Health Group Wrens	3	1015350	2024	5802	500000	2024	0	Education, Education, Private, Private	Essential, Important	20	
Jefferson County	Wrens Elementary	3	20500000	2024	78216	820000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer		637	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Wrens Middle School (vacant)	3	17000000	2024	59902	680000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	0	0
	31		$ 257,906,697.00		574243	$ 9,727,000.00					0	
											0	
Jefferson County	JC Recreation Dept	4	$ 1,300,621.00	2024	1867	$ 29,600.00	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important	4	
Louisville city	Grange Rd water Plant	0	5000000	2024				0	Government, Government, Water/Sewer, Water/Sewer			
Louisville city	Highway 24 Lift Station	0	150000	2016	1000			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville City Airport	0	543665	2024	3200			0	NGO, NGO, Transportation, Transportation	Important, Transportation		
Louisville city	Louisville Tech Lift Station	0	125000	2024	50		2024	1E+05	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville WPCP	0	15000000	2024				0	Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline	2	

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Louisville city	Pumping Station (2nd Street)	0	0	2024			2024	0	Emergency Services, Emergency Services, Water/Sewer, Water/Sewer	Essential		
	6		$ 20,818,665.00									
Louisville city	Louisville City WaterTower	1	$ 950,000.00	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Special Consideration		
Louisville city	Booster pump station	2	175000	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville Lift Station at HS	2	150000	2024	50		2024	2E+05	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville Water Tower	2	712500	2024	100			0	Government, Government, Water/Sewer, Water/Sewer			
			$ 1,037,500.00									

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Louisville city	American Renal Assoc NCA Dialysis Center	3	1261225	2024	7207			0	Medical, Medical, Private, Private	Important, Vulnerable Population	10	
Louisville city	City of Louisville Water Tank	3	500000	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Important		
Louisville city	Louisvill City Hall	3	550000	2024	7200	350,000.00	2024	0	Government, Government, Private, Private	Essential	10	4
Louisville city	Louisville Fire Station	3	750000	2024	7200	850,000.00	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	4	
Louisville city	Louisville Water Works	3	4425000	2024	2400			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		
Louisville city	Market House	3	100000	2024	600			0	Government, Government, Water/Sewer, Water/Sewer	Historic Consideration, Special Consideration		
Louisville city	Physicians Health Group Louisville	3	2400000	2024	9560	500,000.00	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important	20	

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Louisville city	Pumping Station (Jewel Lane)	3	200000	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Louisville city	US # 1 Bypass Lift Station	3	150000	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
	9		$ 10,336,225.00			$ 1,700,000.00						
Louisville city	OCI Nursing Home	4	$ 5,000,000.00	2024	45062			0	Education, Education, Library, Library	Vulnerable Population	225	200
Stapleton city	Stapleton City Hall & Emergency Shelter	3	508109	2024	3000	74000	2024	2E+05	Government, Government, Private, Private	Essential	2	
Stapleton city	Stapleton Fire house & Emergency Shelter	3	509327	2024	6000	700000	2024	1E+05	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Important, Lifeline	2	
Stapleton city	Stapleton Water Tank #1	3	771603	2024	100		2024	2E+05	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Stapleton city	Stapleton Water Tank #2	3	795253	2024	100		2024	2E+05	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
	4		$ 2,584,292.00			$ 774,000.00						
Wadley city	Physicans Health Group Wadley	3	405650	2024	2318	250000	2024	0	Education, Education, Private, Private	Important	10	
Wadley city	Wadley City Hall	3	1500000	2024	3645	250000	2024	0	Government, Government, Private, Private	Economic Assets, Essential	5	0
Wadley city	Wadley Lift Station #1	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #2	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #3	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #4	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #5	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer			
Wadley city	Wadley Lift Station #6	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wadley city	Wadley Police Department	3	900000	2024		200000	2024	0	Law Enforcement, Law Enforcement, Police, Police	Essential	6	2
Wadley city	Wadley Water Tower #2	3	500000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	
	10		$ 3,429,790.00			$ 700,000.00						
Wadley city	Glendale Nursing Home	4	1610863	2024	26500	750000	2026	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Important, Special Consideration, Vulnerable Population	120	90
Wadley city	Wadley Community Complex	4	800000	2024	6000		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Historic Consideration, Important		
Wadley city	Wadley Elevated Water Tank	4	650000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wadley city	Wadley Fire Station	4	300000	2024		500000	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential		
Wadley city	Wadley Gym	4	400000	2024	1200		2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Historic Consideration, Important		
Wadley city	Wadley Public Library	4	510000	2024	3114	538200	2024	0	Education, Education, Library, Library	Economic Assets, Important	5	5
Wadley city	Wadley Well House	4	600000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
	7		4,870,863.00			1,788,200.00						
Wrens city	Calcine Meter Set	0	225000	2024	100		2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Wrens city	City of Wrens Airport	0	504388	2024				0	Emergency Services, Emergency Services, EMA, EMA	Essential		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Family Y/ City of Wrens Recreation	0	2080755	2024				0	Education, Education, K - 12, K - 12	Vulnerable Population		
Wrens city	Highway 88 Lift Station	0	350000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	IMERYS Meter Set	0	300000	2024	10		2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials		
Wrens city	KA-MIN #1	0	250000	2024	10		2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Important, Lifeline		
Wrens city	Ka-Min #2	0	250000	2024	1955		2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials, Lifeline		
Wrens city	Southern Tap #2	0	750000	2024	50		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline		

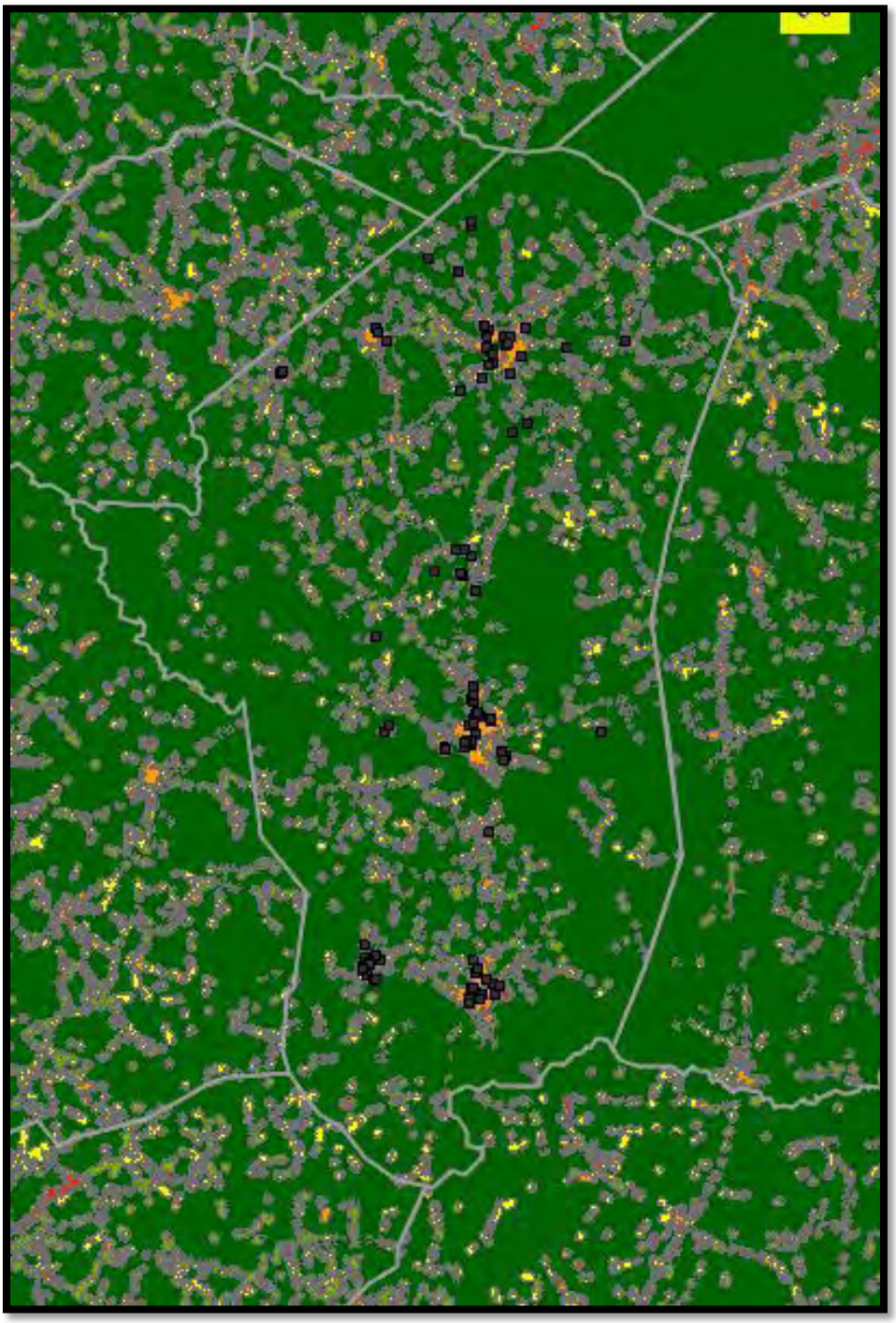
Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Stephens St Lift Station	0	350000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens City Hall	0	1125000	2024	7500	150,000.00	2024	0	Government, Government, Private, Private	Economic Assets, Essential	10	
	10		$ 6,185,143.00			$ 150,000.00						
Wrens city	King Mill Well (Well E)	1	$ 750,000.00	2024	50		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Bushy Creek Lift Station	2	400000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Water Pumping Station	2	300000	2024	144	50000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens city	Wrens Water Tank	2	625000	2024	200		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
	3		$ 1,325,000.00			$ 50,000.00						

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Border Regulator Station	3	100000	2024	100		2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Lifeline	#REF!	
Wrens city	City of Wrens Wastewater Treatment Plant	3	180307	2024				0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wrens city	Gold Cross and Food Bank Development Center	3	96907	2024				0	Emergency Services, Emergency Services, EMS, EMS	Economic Assets		
Wrens city	Southern Tap #1	3	750000	2024	50	2024		0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Wrens city	Water Booster Station	3	500000	2024	1000		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Waynesboro Highway Lift Station	3	400000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	West Walker St Lift Station	3	300000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Community Center	3	500000	2024	3400	50000	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets	20	
Wrens city	Wrens Medical Center	3	875000	2024	400	200000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important, Vulnerable Population	20	
Wrens city	Wrens Old Library Building	3	625000	2024	3000	549200	2024	0	Education, Education, Library, Library	Economic Assets, Historic Consideration, Important		
Wrens city	Wrens Sewage Treatment Plant	3	3250000	2024	1400	125000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Hazardous Materials		
Wrens city	Wrens Water Pumping Station	3	75000	2024	800	25000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens city	Wrens Water Pumping Station	3	125000	2024	800	25000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		

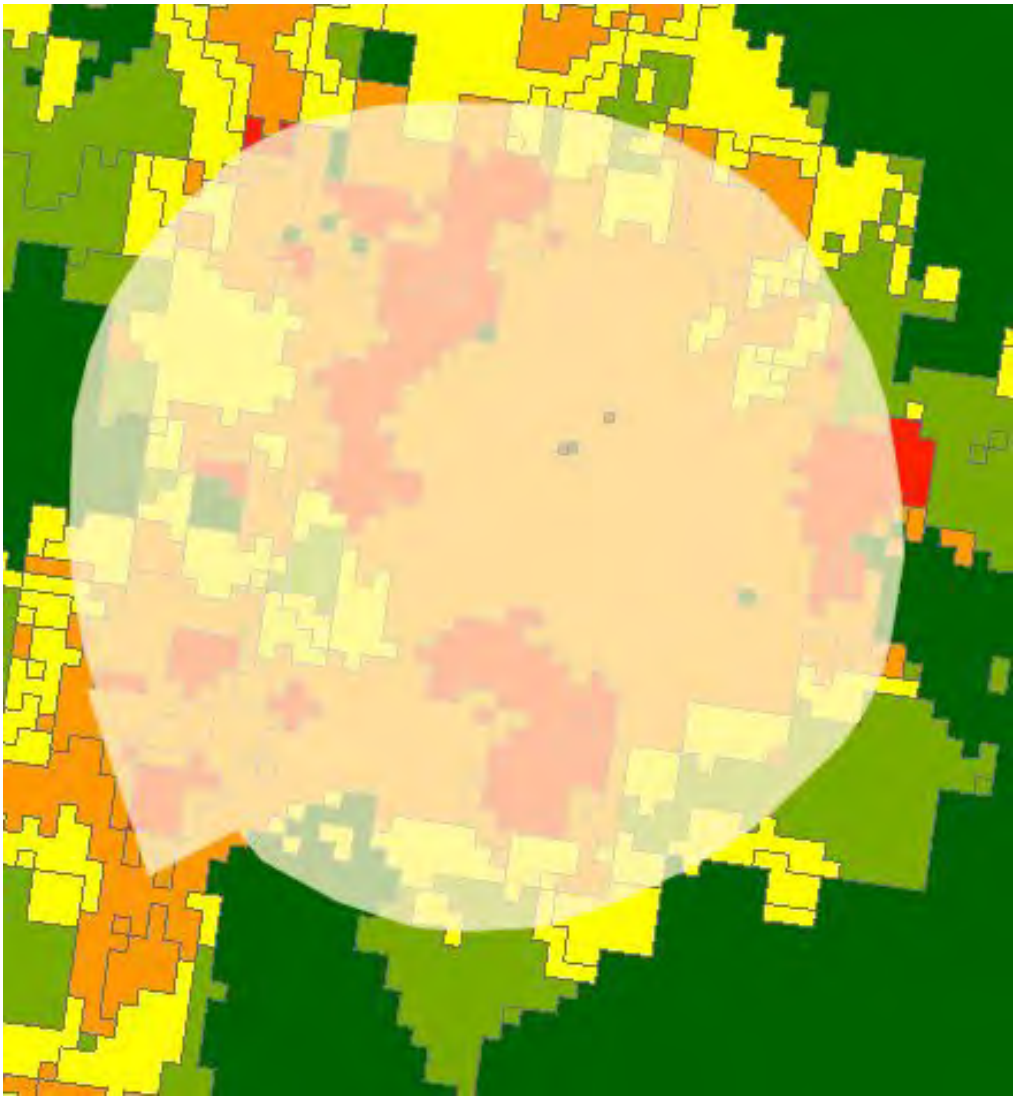
Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Wrens Water Tank	3	625000	2024	150		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Water Tank	3	625000	2024	200		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Water Tank	3	687500	2024	250		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
	16		$ 9,714,714.00		11750	$ 976,224.00						

JEFFERSON COUNTY GMIS WILDFIRE RISK MAP



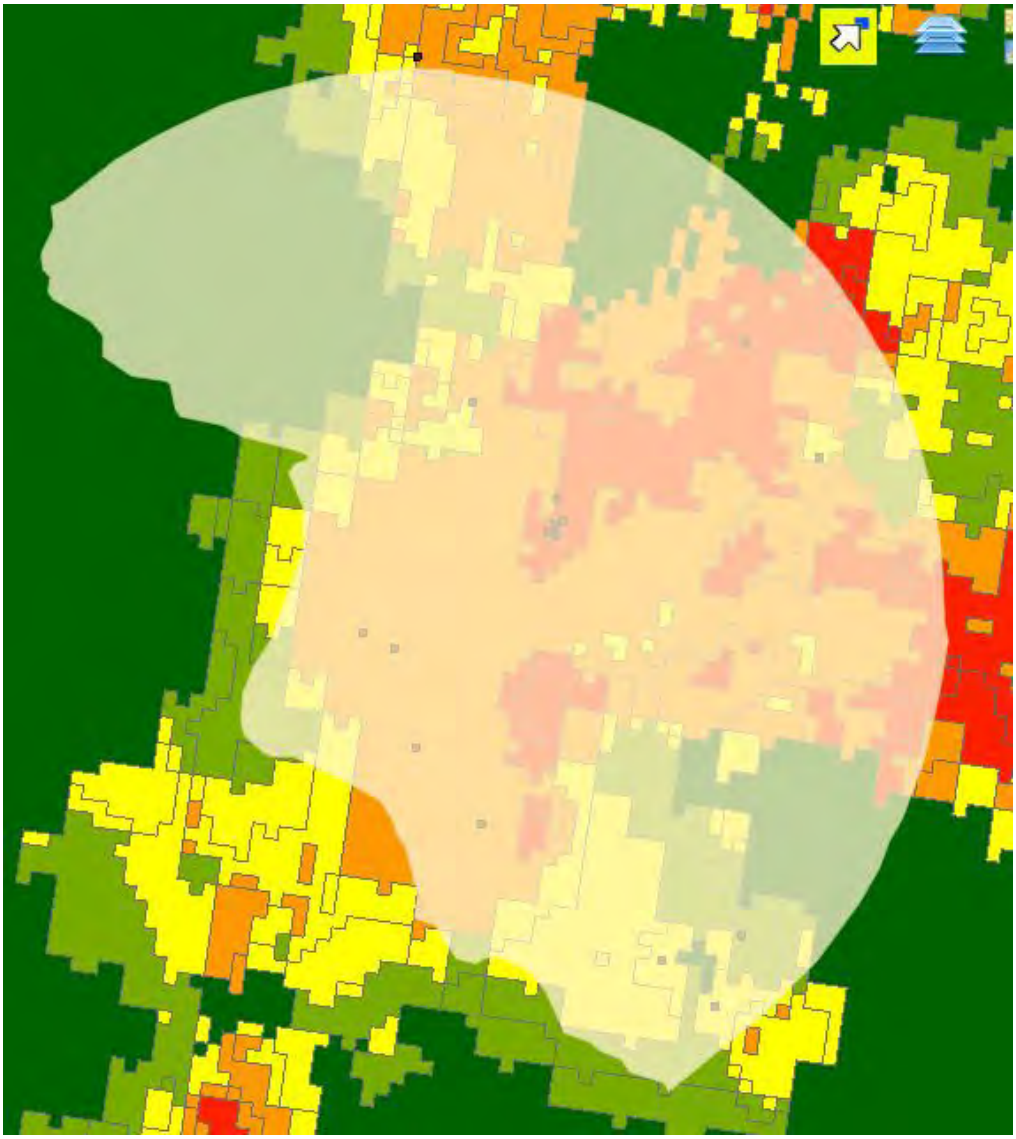
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

AVERA GMIS WILDFIRE RISK MAP



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

BARTOW GMIS WILDFIRE RISK MAP



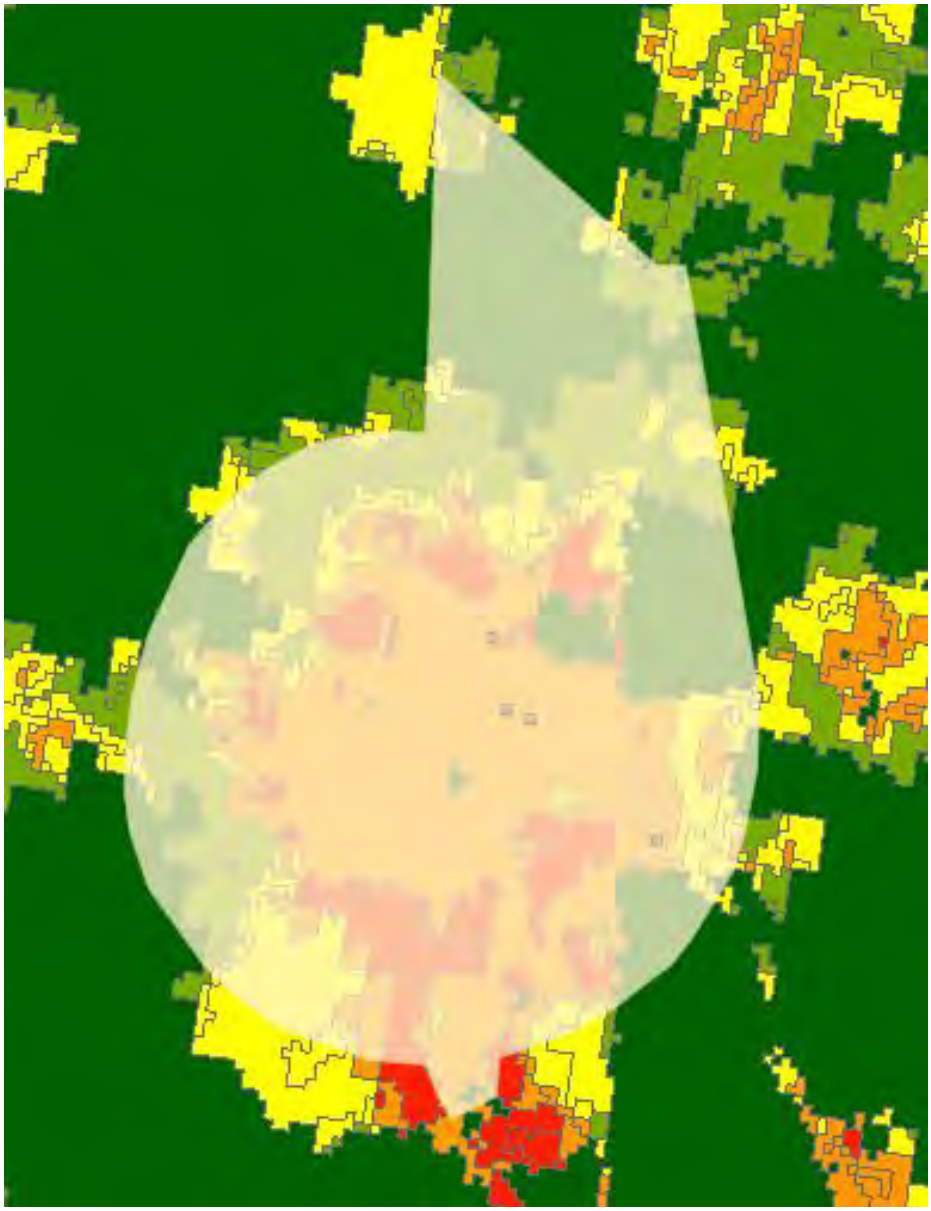
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

LOUISVILLE GMIS WILDFIRE RISK MAP

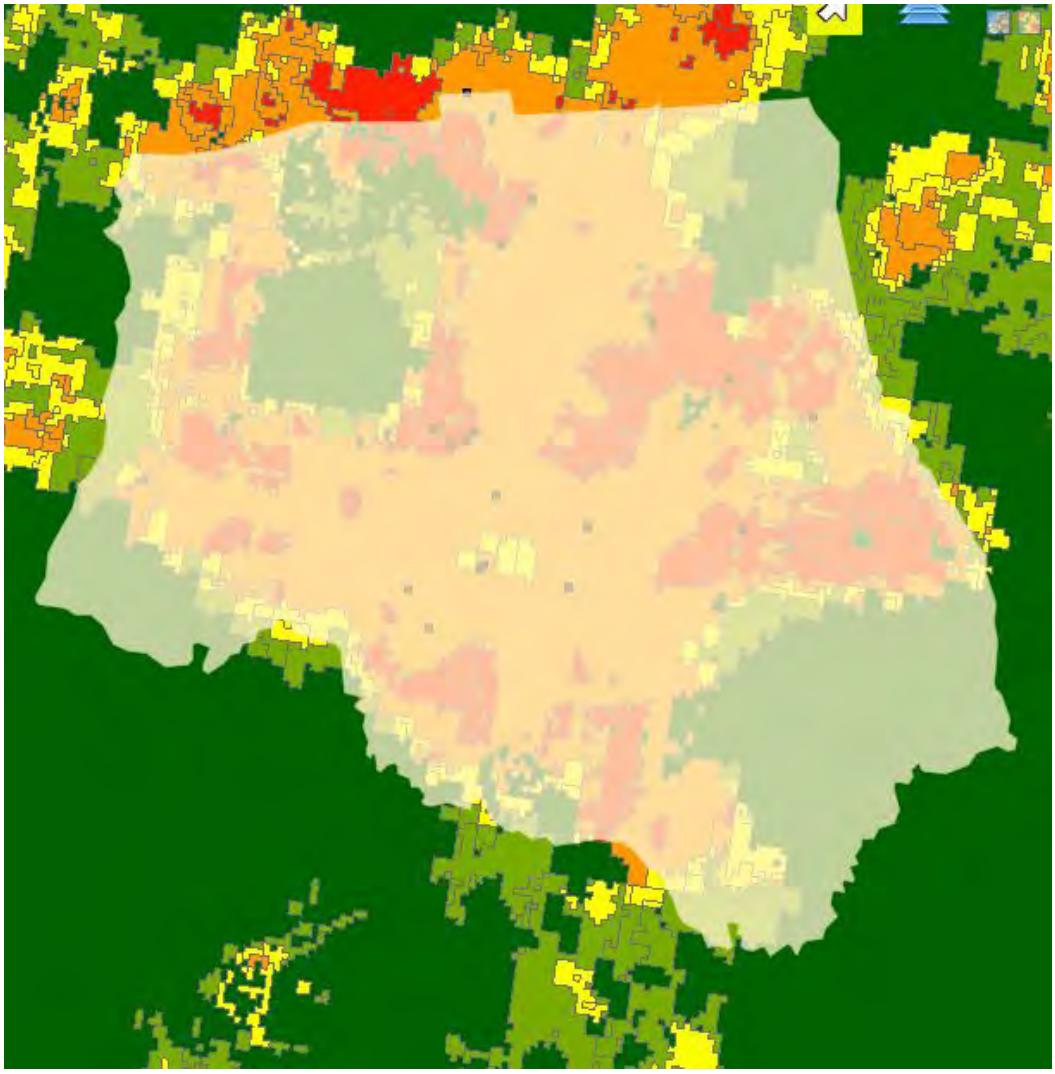
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

STAPLETON GMIS WILDFIRE RISK MAP

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



WADLEY GMIS WILDFIRE RISK MAP



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

WRENS GMIS WILDFIRE RISK MAP

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

Tornadoes

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 weather phenomena and can strike at any time of the year if essential conditions are present. The damage from a tornado is a result of the high wind velocity and wind-blown debris.

Tornados do not touch down as 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 54 years of historical data, there have been 15 reported tornados in the planning area. The highest magnitude reported was an EF3. Reported property and crop damages for all 15 events totaled more than $9.5 Million with 12 injuries. Tornados tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. There is a 28 percent chance of a tornado event for the County as a whole every three and half years.

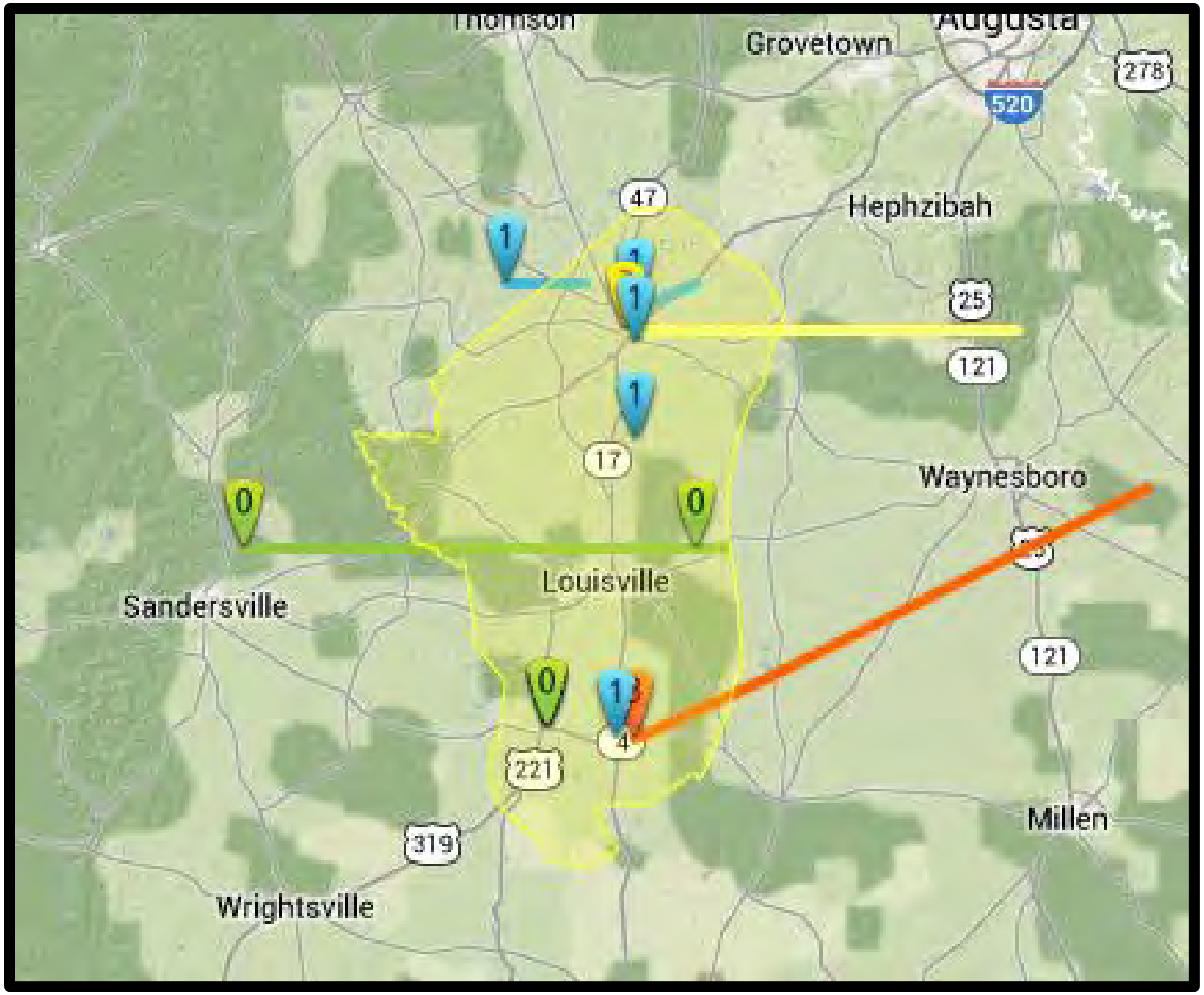
EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
9996441		7/22/1970	Tornado	F0	0	0	$-	
9994549		7/19/1971	Tornado	F1	0	0	$25,000.00	
9995631		1/13/1972	Tornado	F3	0	2	$2,500,000.00	
9994567		3/18/1981	Tornado	F1	0	1	$25,000.00	
9995917		7/25/1981	Tornado	F1	0	0	$250,000.00	
9994881		12/4/1983	Tornado	F0	0	2	$30.00	
9993864		10/1/1989	Tornado	F1	0	2	$25,000.00	
5547389	WRENS	3/7/1996	Tornado	F1	0	5	$1,000,000.00	A tornado destroyed 2 brick homes and 7 mobile homes. 15 other homes were heavily damaged and 10 others had minor damage. The path and duration of the tornado was estimated. There were intermittent touchdowns.
5560037	BARTOW	6/15/1996	Tornado	F0	0	0	$10,000.00	A possible tornado touched down briefly on Baldee Road between Bartow and Louisville. It damaged a cattle barn and power poles. A tree was downed and there was debris over the road. The length and width are estimated.
89334	WRENS	3/15/2008	Tornado	EF2	0	0	$500,000.00	The pattern that began to evolve on March 14th continued and intensified on March 15th. A stationary front remained draped across north Georgia from near Atlanta to Athens. South of this front, the air mass was becoming increasingly warm, moist and unstable. Meanwhile, aloft, a low amplitude, yet vigorous short wave embedded within a fast zonal flow, was tracking rapidly eastward from the mid south into the southeast. Strong shear and high helicity combined with the unstable air mass and the frontal boundary to allow repeated severe thunderstorms to develop and track eastward along the boundary across north Georgia. The activity began early in the day as a complex of thunderstorms moved into the area from Alabama and continued until nearly midnight. As the day progressed, especially during the afternoon, the development of the activity gradually progressed further south and by midnight had reached the south and southeast parts of the state. Numerous severe thunderstorms and tornadic supercells were observed throughout the day.||Historical records indicate that this was one of the most significant severe weather days for the Peachtree City Weather Forecast Office with more events and warnings than had been observed since May 2003.

EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
102218	GRANGE	5/11/2008	Tornado	EF0	0	0	$5,000,000.00	A stationary front was draped across north Georgia early on May 10th with an active northwest flow aloft. Meanwhile...a vigorous short wave aloft was approaching the area from the southern plains. The stationary front provided the focus for two rounds of showers and thunderstorms, one early in the morning on the 10th and another in the afternoon. The activity tracked east-southeast with the upper flow aloft, mainly across north Georgia during the early morning and across central Georgia during the afternoon. An isolated strong supercell also tracked across the southern part of central Georgia during the evening. After a lull of convective activity for about four hours, intense multicell thunderstorms tracked into the area from Alabama after midnight and before dawn on the 11th. As these thunderstorms tracked across west central and central Georgia, 15 tornadoes were identified by subsequent surveys making this the most significant tornado outbreak to affect the area since the Katrina-associated tornadoes on August 29, 2005. Millions of dollars of property damage were reported as many homes were destroyed from these tornadoes from the western and southern suburbs of Atlanta southeastward across Macon, Dublin, and other counties in east central and southeast Georgia. Many of these counties were eligible for disaster assistance from the federal government.||In addition to the tornadoes and thunderstorm winds that caused extensive damage in dozens of counties across north and central Georgia during the early morning hours of May 11th, strong gradient winds developed on the back side of the strong cold front that moved through the area as low pressure intensified across the mid-Atlantic region. The strong winds combined with wet ground resulted in dozens of trees being blown down in some north Georgia counties. There were also two deaths as a result of downed trees in Barrow and Gwinnett county, all non-thunderstorm-related winds.

EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
164625	STAPLETON	4/10/2009	Tornado	EF1	0	0	$100,000.00	A vigorous upper closed low was moving from the mid-south and Mississippi valley region into the mid-Atlantic and southeast U.S. A strong cold front accompanied the upper system. A strong low-level jet in advance of these weather systems transported warm, moist Gulf air northward into the region. With strong dynamics, hence shear, combined with an unusually moist, unstable atmosphere, the atmosphere was primed for a major weather outbreak. One round of thunderstorms passed through north Georgia during the early morning hours. A few minor severe weather events accompanied this system in northwest Georgia. Partial clearing followed the morning convection, allowing temperatures to soar into the mid 70s across much of north and central Georgia in advance of the main weather system. Scattered to numerous discrete supercell thunderstorms developed during mid-afternoon in northwest Georgia and progressed east and southeast across the remaining portions of the county warning area during the evening hours. Severe thunderstorms and tornadoes lingered into the early morning hours of the 11th across the southern counties of central Georgia. During the eight hour period from 5 pm EDT on April 10th to 1 am EDT on April 11th, a total of 14 tornadoes were confirmed to have touched down in north and central Georgia causing millions in damages. While some injuries were observed, no deaths were observed.
698287	GRANGE	4/3/2017	Tornado	EF0	0	0	$25,000.00	A strong short wave and associated surface low swept through the southern and eastern U.S. and combined with moderate instability and strong shear resulted in widespread severe weather, including numerous tornadoes, across north and central Georgia from late morning through the afternoon.

EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
893112	ALMIRA	4/13/2020	Tornado	EF0	0	0	$20,000.00	A powerful Spring storm system resulted in a Severe Weather / Tornado outbreak across much of the Southeast region, including north and central Georgia, beginning on Easter Sunday (April 12th) and lingering into the morning hours of April 13th. From the Storm Prediction Center (Day 1) convective outlook, just about the entire area was under an ENHANCED risk for severe weather with a MODERATE risk extending from the ArkLaMiss into western Georgia.||In addition, enhanced rainfall occurred over far north Georgia and in portions of central Georgia, with rainfall amounts ranging from 3 to 8 inches through the event. Significant flooding was in portions of the area with numerous reports of washouts and several reports of rescues.
1074979	MAGNOLIA	1/4/2023	Tornado	EF0	0	0	$-	A strong developing system over brought moist southerly winds across the north and central Georgia, creating isolated severe thunderstorms and flash flooding on the afternoon and evening of January 3rd. The severe weather threat continued into Wednesday, January 4th, as the storm progressed eastward and brought a cold front across the area, producing isolated damaging wind gusts.
						12	$9,480,030.00	

http://www.tornadohistoryproject.com/



Tropical Storms

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's 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. Jefferson County is not likely to experience a hurricane or storm surges.

The entire county has the potential to be affected by tropical storms. Based on historical data, there have been 14 tropical storms reported by the NCEI and SHELDUSTM with reported property and crop damage. The county is actively conducting damage assessments for Hurricane Debby and Hurricane Helene, and total damages are yet to be finalized by local officials. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly more than $1.2 Billion with a population of 16,930.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5316379	JEFFERSON (ZONE)	9/14/2002	1100	Tropical Storm	Saturday, September 14, 2002. The remnants of Hanna then moved northeast across central Alabama during the day Saturday and then across north Georgia Saturday evening into Sunday morning. The center of the remnants of Hanna passed near Carrollton, Georgia around 2 AM EDT Sunday morning, then exited the state near Clayton, Georgia Sunday morning, September 15th, around 10 am EDT. While the heaviest rain and wind associated with Hanna did not affect north and central Georgia area, a significant northwest -southeast oriented feeder band associated with Hanna moved across north and central Georgia during the mid and late afternoon Saturday. Wind gusts of 45 to 50 mph and very heavy tropical thunderstorms accompanied the feeder band. Numerous trees and power lines were blown down as the feeder band moved rapidly northeast through the afternoon. Many residents of north Georgia were left without power for at least a few hours. In the Atlanta metropolitan area alone, 48,000 residents were left without power. There were also scattered areas of urban and street flooding as up to 2 inches or more of rain fell in association with the feeder band in a one to two hour period. The heaviest rain fell across the counties north of a line from Atlanta to Athens. Additional rain fell across the region Saturday night and Sunday morning, but was considerably less intense, confined mainly to central Georgia, and was not accompanied with damaging winds. Three day rainfall totals in association with Hanna were in excess of 3 inches across much of northeast, east central, and the southern portions of middle Georgia. Athens reported 3.54 inches on September 14th alone, with a 3-day total of 5.03 inches. The average rainfall amount for north Georgia stations for the month was in excess of 7 inches, and was nearly 5 inches for middle Georgia. These rainfall amounts are approximately 3.5 and 1.5 inches above normal, respectively. Several stations, particularly in north Georgia had in excess of 10 inches of rain during the month, with 12.47 inches at Carrollton, 11.23 inches at Embry, 11.02

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5334529	JEFFERSON (ZONE)	7/1/2003	0	Tropical Storm	Tropical Depression Bill, which was earlier Tropical Storm Bill, tracked across north and central Georgia during the day bringing heavy rain, flooding, wind damage, and even an isolated tornado to the region. The storm, which formed in the Gulf of Mexico Sunday morning, June 29th, moved inland between New Orleans, Louisiana and Mobile, Alabama on Monday June 30th, then tracked northeast to near Tuscaloosa, Alabama by the morning of July 30th, then turned east-northeast and accelerated. The depression moved between Birmingham, Alabama and Atlanta, Georgia during the afternoon of July 1st, exiting northeast Georgia after midnight on July 2nd. Twenty-four rainfall totals of four to six inches were common on July 1st across much of north and portions of central Georgia, roughly north of a line from Columbus to Athens. Rainfall amounts were generally in the 1 to 2 inch range south of this line. There were numerous reports of flooding, especially in the Atlanta metropolitan area, and a number of roads were rendered impassable and closed. The ground across north and central Georgia was saturated from a number of weeks of above normal rainfall and the tropical storm rainfall just exacerbated the situation. As the center of circulation associated with the tropical depression tracked across north Georgia, a brief F1 tornado spinup occurred in Morgan county southwest of Madison in east central Georgia. There were also other isolated wind damage reports in areas east and southeast of Atlanta from Stockbridge to Madison to Athens.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5423956	JEFFERSON (ZONE)	9/6/2004	1200	Tropical Storm	scale) with sustained winds of 145 mph, reached the east coast of Florida just north of West Palm Beach, Florida early on September 5th. The storm weakened to a Tropical Storm as it continued west-northwest across the Central Florida Peninsula reemerging over the northwest Gulf of Mexico early on September 6th. The storm then took on more of a northwestward movement, making landfall later on the 6th near Saint Marks Florida along the Florida Panhandle Gulf Coast. Continuing north-northwestward from this point, Tropical Storm Frances entered far southwest Georgia near Bainbridge late in the evening on the 6th. The storm continued moving north-northwest through far western Georgia on the 7th to near Atlanta around midnight on the 7th, then to near Chattanooga, Tennessee early on the 8th. By far the most significant problem with Frances for Georgia was strong, sustained winds of 35 to 40 mph with gusts in excess of 50 mph. Most of the high winds were concentrated in a large east-west oriented rain band that moved north across Georgia during the evening of the 6th and the early morning hours of the 7th. It was during this period of time that significant damage occurred across many Central, East Central, and North Central Georgia counties. The strongest winds and most significant damage occurred in the areas east and south of a line from Americus, to Atlanta, to Athens. Many of the counties within this area suffered extensive wind damage. Dozens to hundreds of trees were blown down, also bringing down dozens to hundreds of power lines. Nearly 300,000 people were left without power during the storm, several thousand for several days. Dozens of homes suffered major damage throughout Central and North Central Georgia, with dozens more sustaining minor damage. The most significant damage took place in an area bounded by Macon, Atlanta, Greensboro, Dublin, Americus, and back to Macon. Damages in the millions were observed in several of these counties, including several large pecan orchards which were virtually destroyed. Estimated total damage with Frances $14.9

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5424489	JEFFERSON (ZONE)	9/16/2004	0	Tropical Storm	within its life cycle a category five hurricane, developed from a tropical wave which moved off the African coast on August 31st. The system became a tropical depression on September 2nd, and tropical storm on September 3rd, and a hurricane early on September 5th. Later that same day, it became a major hurricane. Ivan moved westward for several days and passed over the southern Windward islands, then moved west-northwest through the southern Caribbean passing just north of Venezuela and the Netherlands Antilles. The hurricane reached category five strength on September 9th as it neared Jamaica. The hurricane weakened to a category four storm as it passed near Jamaica. The storm maintained its category four strength as it turned slightly west of north until the 11th when it briefly strengthed once again to a category five storm. The storm passed near Grand Cayman and the west tip of Cuba from September 11th to the 12th as mostly a category four hurricane. The storm then turned to the northwest and moved through the Yucatan Channel. It briefly regained category five strength one more time as it moved through the Gulf, but weakened to a category three hurricane by the time it struck the U.S. Gulf Coast near Gulf Shores, Alabama around 2 am September 16th. From here, the weakening hurricane moved nearly due north to near Birmingham by the evening of the 16th. By this time it had weakened to a tropical storm. The storm then turned northeast across northwest Georgia during the early morning hours of the 17th as it weakened to a tropical depression. Ivan brought tornadoes, high winds, and significant to record flooding to north and central Georgia. The track of Ivan across central and northeast Alabama also put much of central and eastern Georgia in the favorable quadrant for strong spiral feeder bands and tornadoes. Six tornadoes were confirmed with Ivan causing an estimated $3.4 million dollars in damages. These tornadoes consisted of two F1 tornadoes, one each in Madison and Wilkes county in northeast Georgia, with one F0 tornado reported in Cherokee, Madison,

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5424081	JEFFERSON (ZONE)	9/26/2004	0	Tropical Storm	affect Georgia within a three week period, following just 10 days after Hurricane Ivan, which followed just 10 days after Hurricane Frances. Jeanne caused the least damage to north and central Georgia counties of the three tropical systems to affect the state during the month of September. High winds were limited mainly to the southeast portions of middle Georgia and flooding rains were limited to the Atlanta area and south middle Georgia counties. No tornadoes were observed with Jeanne as the favorable tornado-producing spiral feeder bands remained well east over the Carolinas and western Atlantic. Hurricane Jeanne developed on September 13th from a tropical wave over the Leeward Islands. Jeanne moved slowly across the Virgin Islands and Puerto Rico on the 15th, then slowly over the Dominican Republic and Haiti the 16th and 17th. Most of this time, the storm maintained only strong tropical storm strength. Jeanne then took a northward turn on the 18th and moved across the southeastern Bahamas as a tropical storm. From this point, Jeanne meandered through a slow clockwise loop from the 20th through 23rd, when the loop was finally completed. During this time the storm strengthened to a category two hurricane. Jeanne then began a slow westward track on the 23rd and strengthened to a category three hurricane. The storm then made landfall on the 25th, just north of West Palm Beach, Florida, at almost the exact same location as Hurricane Frances had done 20 days prior. Jeanne weakened to a tropical storm as it turned north-northwest across central Florida on the 26th and then weakened into a tropical depression as it moved into southern Georgia early on the 27th. The storm tracked from near Valdosta during the early morning hours of the 27th, reaching Macon around sunset on the 27th, then accelerating into northeast Georgia near Athens by midnight and out of the state early on the 28th. High winds of 35 to 40 mph with some higher gusts were confined mainly to the central and southeast portions of middle Georgia, roughly southeast of a line from Macon to Sandersville. Rainfall

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5468048	JEFFERSON (ZONE)	6/12/2005	0	Tropical Storm	Tropical Storm Arlene, which formed on June 8th near the northeast coast of Honduras, became a tropical storm on the 9th southwest of Grand Cayman. Arlene moved slowly northward and steadily intensified as it crossed western Cuba. The storm continued northward over the eastern Gulf of Mexico where it reached its peak intensity with a wind speed of 70 mph. The storm made landfall near Pensacola, Florida with 60 mph on the 10th. The storm moved slowly northward through central and western Alabama on the 11th and 12th. Damage to Georgia from the storm was minimal. While rain occurred in many areas, only one flash flooding event was reported in association with Arlene, namely in Towns county on the 12th.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5477107	JEFFERSON (ZONE)	10/5/2005	400	Tropical Storm	Tropical storm Tammy developed just east of the central Florida coast on the 5th of October as the result of a complex interaction between an upper-level low and a tropical wave. The storm quickly strengthened from tropical depression status to a tropical storm early on the 5th about 20 miles east of Cape Canaveral, Florida. The storm moved north-northwest parallel to the Florida coast most of the 5th until it turned northwest and made landfall along the northeast Florida coast near Mayport, Florida late on the 5th. Its maximum sustained winds were only 50 mph. Tammy moved west across south Georgia and southwest Alabama on the 6th before becoming absorbed into an extratropical low pressure area over the Florida Panhandle. The main effects of Tammy on north and central Georgia consisted of approximately two days of a steady light to moderate rain. However from late on the 5th through much of the 6th, bands of heavier rain showers affected much of eastern Georgia. Two-day rainfall totals of three to five inches were common across east Georgia, mostly east of a line from Athens to Dublin. Areas immediately west of this line received generally one to two inches of rain, while the western most counties of Georgia against the Alabama border received less than one inch of rain in association with tropical storm Tammy. No tornadoes occurred and no wind damage or flooding was reported in north or central Georgia in association with Tammy. The rain that fell as a result of Tammy followed a period of nearly 40 days during which most of the region had received less than 0.10 inch of rain. Wind associated with this system across north and central Georgia was for the most part 15 mph or less.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
132251	JEFFERSON (ZONE)	8/21/2008	1200	Tropical Storm	brought to much of Florida as well as being one of the longer lived tropical systems to affect the U.S. Tropical Storm Fay formed from a tropical wave on August 15th along the east coast of Hispaniola. The storm moved west along the south coast of Cuba before reaching a weakness in the subtropical ridge to its north causing it turn north-northwestward into central Cuba by the 17th. Fay continued to track north-northwest through the Florida straits and Florida Keys on the 18th before turning northeast toward the Florida peninsula. The storm made landfall on August 19th in southwest Florida at Cape Romano as a tropical storm with winds of 60 mph. Fay continued to move very slowly northeast across the central Florida peninsula, well maintaining its strength along the way, reaching the northeast coast of Florida on August 21st. At this point, a strengthening subtropical ridge and surface high over the mid-Atlantic region forced Fay to take a sharp westward turn toward the Florida panhandle. The storm tracked west to west-northwest from the 22nd through the 25th into extreme southeast Louisiana before reaching the western end of the subtropical ridge and an approaching frontal system. Thus, Fay once again turned back toward the northeast across central Mississippi and central/northern Alabama before finally becoming absorbed into the mean flow and a frontal system located across the Tennessee Valley.||The slow movement of Fay and the proximity to the forecast area allowed for Fay's impacts on the Peachtree City forecast area to last several days. Outer rain bands affected the southern parts of the forecast area as early as the 20th. Outer rain bands continued to affect the southern counties as Fay tracked slowly west through the Florida Panhandle the 21st, 22nd, and 23rd. Some of these produced gusty winds and a few trees were blown down in the far southeastern counties, namely Toombs with three downed trees and Emanuel with two downed trees. While no tornadoes occurred at this point, tornado warnings were issued for several counties in the south central and southeast part

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
204045	JEFFERSON (ZONE)	11/10/2009	500	Tropical Storm	Hurricane Ida, which formed in the Caribbean and intensified to a category two hurricane on the Saffir-Simpson scale, moved north from the Caribbean across the central Gulf of Mexico and then inland along the U.S. Gulf coast near Mobile, Alabama early on the 10th. The remnants of the hurricane then moved east-northeast across southern Alabama and southern Georgia before moving off the east coast of the U.S. as a strong surface low pressure area. Heavy rainfall, on the order of four to five inches, was common across north Georgia, with one to two inch amounts across central areas. With the ground totally saturated from several prior months of heavy rainfall, widespread creek, stream, and river flooding was observed over a two to three day period. Because the rain intensity was mostly moderate or less and extended over a period of 18-24 hours, flash flooding events were isolated, with most of the flood events being of the creek, stream, and river flood nature.||The small wind core of Hurricane Ida and its track across land significantly reduced the wind effects of this system on north and central Georgia. Winds were generally in the 15 to 20 mph range with a few stronger gusts. Only Banks county in northeast Georgia observed any wind damage, where a few trees and power lines were blown down.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
349244	JEFFERSON (ZONE)	9/4/2011	1100	Tropical Storm	Tropical Storm Lee moved slowly onshore the Louisiana coast on Friday September 2nd and then grudgingly moved northeast through Sunday September 4th before finally becoming caught up in an eastward advancing upper trough and associated frontal system. The remnants of Lee tracked across central Mississippi, central and northern Alabama, and into northern Georgia on the 5th before moving northeast of the area early on September 6th. The remnants brought beneficial modest rainfall amounts to the northwestern half of Georgia, with the heaviest rainfall falling in northwest Georgia, mainly northwest of a Rome to Dalton line. In this corner of the state, rainfall of five to seven inches was common over the two-day period, resulting in minor flooding. During the afternoon of the 5th, daytime heating combined with a pocket of strong shear associated with the remnants of Tropical Storm Lee and spawned numerous strong thunderstorms across north and central Georgia. Many of these exhibited strong low-level rotation prompting numerous tornado warnings during the afternoon and evening hours of the 5th. However, only one of these actually netted a tornado, an EF1 that tracked across much of eastern Cherokee county causing extensive damage to homes and businesses in that area. Damages were likely in excess of $11 million across eastern Cherokee county.||Tornado, thunderstorm wind, and flash flood damages related to Tropical Storm Lee are provided via those individual damage reports.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
721396	JEFFERSON (ZONE)	9/11/2017	800	Tropical Storm	On the morning of August 30th Tropical Storm Irma developed rapidly over the eastern Atlantic Ocean, just west of the Cape Verde Islands. Tropical Irma quickly strengthened as it moved west, reaching hurricane strength by the morning of August 31st. Hurricane Irma continued to move steadily westward across the Atlantic Ocean, intensifying to category 4 storm on the Saffir-Simpson scale as it approached the northern Leeward Islands of the Lesser Antilles on September 4th. By the morning of the September 5th Hurricane Irma had reached category 5 and remained so into the morning of September 8th as it moved through the northern Antilles and approached the Bahamas. Irma continued moving west northwest as a category 4 storm before turning north over the Florida Straits, and crossing the Florida Keys on the 9th and 10th. Hurricane Irma made landfall over southwest Florida as a category 4 storm during the evening of the 10th and travelled north northwest through western Florida before weakening to a category 1 hurricane as it crossed into southwest Georgia the afternoon of September 11th. Tropical Storm Irma crossed southwest Georgia through the day of the 11th before weakening to a tropical depression over north Alabama early on the morning of the 12th. Tropical storm strength winds produced widespread damage across central and north Georgia through the day of September 11th and into the early morning hours of the 12th. Isolated flash flooding associated with Tropical Storm Irma was reported as well.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
793581	JEFFERSON (ZONE)	10/10/2018	2200	Tropical Storm	Hurricane Michael made landfall along the Florida panhandle at Mexico beach (just southeast of Panama City) on the afternoon of October 10, 2018 as a high-end Category 4 hurricane (max winds of 155 MPH). Michael then moved rapidly inland, causing widespread wind damage along its path as it swept northeast across south and central Georgia. Hurricane Michael was the first major hurricane, category 3 or higher, to directly impact Georgia since the 1890s. In southwest Georgia, wind gusts as high as 115 mph were recorded. Within the NWS Atlanta/Peachtree City county warning area, wind gusts of 40-60 MPH, with some gusts over 70 mph, across portions of central Georgia on the evening of October 10th into the morning of October 11th led to widespread tree damage and power outages with damage to numerous structures. Severe crop damage was also reported, especially to cotton and pecan crops, as well as devastating impacts to commercial timberland. In addition, a few brief tornadoes in the outer bands of Michael caused isolated damage in portions of the north and central Georgia while heavy rainfall led to localized flooding. Michael quickly exited the state as a tropical storm late on the morning of October 11th.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
924110	JEFFERSON (ZONE)	10/29/2020	200	Tropical Storm	During the late evening of October 28th through the morning of October 29th, Tropical Storm Zeta swept rapidly across north Georgia producing widespread wind damage and isolated flooding across north and portions of central Georgia. Around 1.5 million customers lost electricity for some period of time, some for several days.

Severe Weather (Thunderstorm Wind, Lightning, and Hail)

Three types of severe weather were identified by the mitigation team: (1) thunderstorm winds, (2) lightning and (3) hail.

The first severe weather event, thunderstorm winds, can cause death and injury, power outages, property damage, and can disrupt telephone service, severely affect radio communications and surface/air transportation which may seriously impair the emergency management capabilities of the affected jurisdictions. Thunderstorm winds arise 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 lightning. Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas. Rising and descending air within a thunderstorm separates these positive and negative charges. Water and ice particles also affect charge distribution. A cloud-to-ground lightning strike begins as an invisible channel of electrically charged air moving from the cloud toward the ground. When one channel nears an object on the ground, a powerful surge of electricity from the ground moves upward to the clouds and produces the visible lightning strike. Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall.

The final 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 GMIS has the entire county with a wind hazard score of two, where wind speed is between 90 to 99 mph. All 118 critical facilities have a wind hazard score of two with a replacement cost of more than $328 million. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly less than $1.3 Billion with a population of 16,930.

Jefferson County_ National Weather_ Hail						
EVENT_ID	CZ_NAME_S	BEGIN_LOC	BEGIN_DAT	DAMAGE_PROF	SOURCE	EVENT_NARRATIVE
9994338	JEFFERSON		6/3/1959	0		
9994210	JEFFERSON		4/18/1969	0		
9993804	JEFFERSON		4/14/1984	0		
5546085	JEFFERSON	LOUISVILLE	4/26/1996	0		
5639121	JEFFERSON	BARTOW	4/3/1998	0		
5639962	JEFFERSON	LOUISVILLE	4/17/1998	0		
5638330	JEFFERSON	LOUISVILLE	4/22/1998	0		Jefferson county 911 reported quarter size hail between Louisville and Wrens.
5687497	JEFFERSON	LOUISVILLE	4/24/1999	0	GENERAL P	The public reported hail a little larger than golf ball size, strong winds, and power out in Louisville.
5263645	JEFFERSON	AVERA	8/24/2001	0	POST OFFI	The Avera Post Office reported dime size hail.
5292022	JEFFERSON	LOUISVILLE	5/3/2002	0	EMERGENC	The Jefferson county 911 center reported dime to quarter size hail.
5308090	JEFFERSON	WRENS	7/6/2002	0	LAW ENFOI	The Wrens police department reported golf ball size hail.
5345634	JEFFERSON	LOUISVILLE	3/19/2003	0	EMERGENC	The Jefferson county 911 center and the public both reported penny size hail.
5349602	JEFFERSON	WRENS	4/7/2003	0	LAW ENFOI	The Wrens Police Department reported quarter-sized hail.
5360827	JEFFERSON	LOUISVILLE	5/2/2003	0	EMERGENC	The Jefferson county 911 center reported penny-sized hail.
5362267	JEFFERSON	LOUISVILLE	5/11/2003	0	GENERAL P	The public reported nickel to quarter-sized hail halfway between Louisville and Wrens.
5410261	JEFFERSON	STELLAVILL	6/12/2004	0	GOVT OFFI	The Jefferson County 911 center reported golf ball-sized hail in the Stellaville area.

5447895	JEFFERSON	LOUISVILLE	4/13/2005	0	GOVT OFFI	The Jefferson County 911 Center reported quarter-sized hail.
5489482	JEFFERSON	LOUISVILLE	########	5000	TRAINED SF	The Columbia, SC Weather Forecast Office relayed a report from a storm spotter of golf ball-sized hail.
5513048	JEFFERSON	LOUISVILLE	5/14/2006	0	TRAINED SF	The public reported penny-sized hail.
5513050	JEFFERSON	LOUISVILLE	5/14/2006	0	EMERGENC	The Jefferson County Emergency Management Director reported penny-sized hail.
5526793	JEFFERSON	BARTOW	7/28/2006	0	GENERAL P	The public observed penny-sized hail.
89549	JEFFERSON	STAPLETON	3/15/2008	300000	Public	The public observed tennis ball-sized hail across northern Jefferson county, especially in the Wrens area. The Huddle House restaurant on Main Street in Wrens suffered considerable damage from the large hail as a number of windows were broken.
127792	JEFFERSON	LOUISVILLE	7/22/2008	0	County Offi	The Jefferson County 911 Center reported that penny-sized hail fell in the northwest part of the county, south of Avera. Radar data supported that large hail likely fell over a larger area than reported.
128653	JEFFERSON	WRENS	7/28/2008	80000	Public	The public observed golf ball-sized hail in Wrens. Radar supports that large hail of similar size likely fell across a good portion of northeast Jefferson county.

131141	JEFFERSON	WADLEY	8/4/2008	0	Law Enforc	An officer with the Wadley Police Department observed penny-sized hail in the Wadley area.
242837	JEFFERSON	LOUISVILLE	6/20/2010	0	County Offi	The Jefferson County 911 Center relayed reports of quarter-sized hail northwest to west northwest of Louisville in northwest and west central Jefferson county.
347937	JEFFERSON	WRENS	9/25/2011	0	Broadcast M	The Macon television media relayed reports of nickel-sized hail around Wrens.
349823	JEFFERSON	WADLEY	9/27/2011	45000	Public	The public observed golf ball-sized hail just south of Wadley in the far southern part of the county.
451962	JEFFERSON	WRENS	5/21/2013	0	Public	The public reported nickel sized hail in Wrens.
518640	JEFFERSON	LOUISVILLE	5/25/2014	0	911 Call Ce	The Jefferson County 911 Center reported quarter sized hail in Louisville.
511241	JEFFERSON	AVERA	5/27/2014	0	911 Call Ce	The Jefferson County 911 Center reported quarter sized hail south of Wrens.
962690	JEFFERSON	LOUISVILLE	5/3/2021	0	Emergency	The Jefferson County Emergency Manager reported hail the size quarters in Louisville.
				$430,000.00		

National Weather _ Jefferson County _ Lightning						
EVENT_ID	CZ_NAME_	BEGIN_DAT	EVENT_TYP	DAMAGE_PROP	SOURCE	EVENT_NARRATIVE
5609002	JEFFERSON	7/23/1997	Lightning	200000		Lightning was responsible for at least three house fires in Jefferson County. The first one was reported at approximately 1:33 am in Zebina. Lightning struck a tree and jumped to a nearby home, entering the home through electrical wiring. Several appliances were damaged and the front door was knocked off of its hinges. A second strike at 1:38 am, entered the homes attic, after having struck a nearby tree. Some of the attic's insulation caught fire. The third lightning strike occurred just before 3:00 am. The lightning struck a pecan tree at the corner of a home, then entered the house. The sole occupant was able to escape and drive for help. The house was a total loss.
5714729	JEFFERSON	8/20/1999	Lightning	10000	NEWSPAPE	Lightning caused a fire that spread throughout the attic of a home on North Main Street. There was damage to the roof and its support above several rooms.
5374576	JEFFERSON	8/10/2003	Lightning	25000	EMERGENC	The Jefferson county 911 center reported that lightning struck a house and set it on fire. Damage estimates were inconclusive.

EVENT_ID	CZ_NAME_	BEGIN_DAT	EVENT_TYP	DAMAGE_PROP	SOURCE	EVENT_NARRATIVE
340451	JEFFERSON	8/6/2011	Lightning	500	County Offi	The Jefferson County 911 Center reported that lightning struck a tree at the intersection of Georgia Highway 88 and Moore Road in Stapletons Crossroads. The tree was set on fire. The summertime pattern continued. A quasi-stationary front remained across north Georgia and extended westward into the mid-south. A strong subtropical ridge also remained across the south, anchored in north Texas. The upper ridge had retrograded slightly from the previous day allowing slightly more active northwest flow to evolve across the southeastern states. A hot, very moist, unstable air mass remained in place across Georgia. Scattered to numerous thunderstorms developed across west central Georgia during the late morning and early afternoon and propagated on outflow boundaries northward and eastward across much of north and east Georgia. Although very few of these storms reached severe limits, frequent to excessive cloud-to-ground lightning was noted with many of these storms, as well as locally very heavy rain on the order of two to three inches.
				$235,500.00		

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
9995458	JEFFERSON CO.		3/8/1961	800	Thunderstorm Wind	0		
9998216	JEFFERSON CO.		7/4/1966	1500	Thunderstorm Wind	0		
9994540	JEFFERSON CO.		6/27/1971	1800	Thunderstorm Wind	0		
9993514	JEFFERSON CO.		3/21/1974	540	Thunderstorm Wind	0		
9997814	JEFFERSON CO.		4/13/1979	1500	Thunderstorm Wind	0		
9995936	JEFFERSON CO.		2/16/1982	1930	Thunderstorm Wind	0		
9997173	JEFFERSON CO.		4/23/1983	1820	Thunderstorm Wind	0		
9995079	JEFFERSON CO.		7/29/1986	1240	Thunderstorm Wind	0		
9997343	JEFFERSON CO.		7/24/1987	1330	Thunderstorm Wind	0		

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
9997344	JEFFERSON CO.		7/24/1987	1430	Thunderstorm Wind	0		
9995171	JEFFERSON CO.		6/26/1988	1945	Thunderstorm Wind	0		
9996313	JEFFERSON CO.		2/28/1989	615	Thunderstorm Wind	0		
9996479	JEFFERSON CO.		4/28/1990	1720	Thunderstorm Wind	0		
10010407	JEFFERSON CO.		8/21/1990	1630	Thunderstorm Wind	0		
10008202	JEFFERSON CO.		3/1/1991	1920	Thunderstorm Wind	0		
10007210	JEFFERSON CO.		7/1/1992	1345	Thunderstorm Wind	0		
10007242	JEFFERSON CO.		7/3/1992	1319	Thunderstorm Wind	0		
10319066	JEFFERSON CO.	Wrens	7/16/1995	2000	Thunderstorm Wind	1000		Thunderstorm winds knocked down trees and powerlines across northern portions of Jefferson County between Wrens and Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
10319067	JEFFERSON CO.	Wadley	7/24/1995	1755	Thunderstorm Wind	20000		Thunderstorm winds blew trees down on house.
5580616	JEFFERSON CO.	WRENS	1/2/1996	1705	Thunderstorm Wind	60000		
5560047	JEFFERSON CO.	WADLEY	6/26/1996	2010	Thunderstorm Wind	1000		
5595036	JEFFERSON CO.	WRENS	4/22/1997	1905	Thunderstorm Wind	2000		
5604885	JEFFERSON CO.	LOUISVILLE	6/18/1997	1315	Thunderstorm Wind	2000		Thunderstorm winds knocked down trees and tree limbs along Georgia Highway 17.
5607652	JEFFERSON CO.	WRENS	7/16/1997	1820	Thunderstorm Wind	2000		Several trees were knocked down on Old Cornith Road by thunderstorm winds.
5609133	JEFFERSON CO.	WADLEY	7/27/1997	1730	Thunderstorm Wind	1500		Thunderstorm winds knocked down several trees southeast of Wadley.
5640061	JEFFERSON CO.	WADLEY	4/17/1998	2328	Thunderstorm Wind	2000		Several trees were blown down and there were power outages near Wadley.
5652407	JEFFERSON CO.	WRENS	6/9/1998	2010	Thunderstorm Wind	5000	EMERGENCY MANAGER	Jefferson county 911 reported trees and power lines down at 3 different locations between Wrens and Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5660795	JEFFERSON CO.	LOUISVILLE	8/18/1998	1600	Thunderstorm Wind	1000	EMERGENCY MANAGER	Louisville 911 reported 3 trees down on highway 296 north of Louisville. Widespread power outages were also reported.
5701539	JEFFERSON CO.	WRENS	6/29/1999	1345	Thunderstorm Wind	1000	LAW ENFORCEMENT	The Wrens police department reported trees down and power outages.
5714664	JEFFERSON CO.	WRENS	8/19/1999	1610	Thunderstorm Wind	5000	EMERGENCY MANAGER	Jefferson county 911 reported trees and power lines down. A newspaper reported the wind blew over a gas pump at a convenience store in Wrens. Some roofing was also ripped away at an auto parts store about a mile to the south.
5151774	JEFFERSON CO.	COUNTYWIDE	6/22/2000	1715	Thunderstorm Wind	5000	EMERGENCY MANAGER	The Jefferson County Emergency Management Coordinator reported trees down on power lines all across the county. In addition, a tree was reported down and blocking Georgia Highway 102 between Avera and Stapleton in the north part of the county.
5172170	JEFFERSON CO.	WADLEY	8/1/2000	1400	Thunderstorm Wind	3000	EMERGENCY MANAGER	The Jefferson county 911 center reported that trees were knocked down on Moxley-Bartow Road.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5230759	JEFFERSON CO.	LOUISVILLE	1/19/2001	1550	Thunderstorm Wind	2000	EMERGENCY MANAGER	The Jefferson county 911 center reported that trees were blown down.
5255269	JEFFERSON CO.	WADLEY	6/3/2001	1830	Thunderstorm Wind	2000	EMERGENCY MANAGER	The Jefferson County 911 center reported that trees were down.
5263644	JEFFERSON CO.	AVERA	8/24/2001	1540	Thunderstorm Wind	0	POST OFFICE	The Avera Post Office estimated wind gusts at 65 mph.
5308181	JEFFERSON CO.	WADLEY	7/21/2002	1345	Thunderstorm Wind	0	FIRE DEPT/RESCUE SQUAD	The Wadley Fire and Police Department reported that one tree was down.
5308745	JEFFERSON CO.	STAPLETON	7/31/2002	1830	Thunderstorm Wind	1000	EMERGENCY MANAGER	The Jefferson county 911 center reported that some trees were down from Jefferson to Wrens.
5341889	JEFFERSON CO.	LOUISVILLE	2/22/2003	1000	Thunderstorm Wind	3000	EMERGENCY MANAGER	The Jefferson county 911 center reported that power lines were down.
5360826	JEFFERSON CO.	LOUISVILLE	5/2/2003	2030	Thunderstorm Wind	2000	EMERGENCY MANAGER	The Jefferson county 911 center reported that some trees were down.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5361672	JEFFERSON CO.	WADLEY	5/17/2003	1714	Thunderstorm Wind	0	EMERGENCY MANAGER	The Jefferson county 911 center reported that a number of trees had been blown down.
5330257	JEFFERSON CO.	LOUISVILLE	7/1/2003	1600	Thunderstorm Wind	30000	NEWSPAPER	The News and Farmer-Jefferson Reporter of Louisville reported that thunderstorm winds, associated with the remnants of Tropical Storm Bill, caused considerable damage to a home west of Louisville on Grange Road. A portion of the roof over the garage collapsed. The house also sustained other minor damage. A number of trees were blown down or split in half across the street and even up to one-third of a mile away. Several residents in the area reported seeing a tornado that was approximately 10 to 15 feet wide and traveled about 60 to 75 feet above the ground. One resident about four miles west of Louisville reported seeing two tornadoes.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5427688	JEFFERSON CO.	WRENS	10/3/2004	1430	Thunderstorm Wind	30000	EMERGENCY MANAGER	The Jefferson County Emergency Management Director reported that numerous trees and power lines were down from Wrens to Mathews. Parts of U.S. Highway 1 and Georgia Highways 80, 88, and 17 were blocked by downed trees and power lines. Several locations also suffered structural damage. The roof was blown off an auto parts store. A Huddle House restaurant lost its canopy and several windows from the strong wind gusts. A mobile home was destroyed when a large oak tree split it in half and another site-built home was damaged when a large tree fell on it.
5475692	JEFFERSON CO.	LOUISVILLE	8/22/2005	1538	Thunderstorm Wind	1000	GOVT OFFICIAL	The Jefferson County 911 Center reported that a couple of power lines were blown down.
5492604	JEFFERSON CO.	WADLEY	1/2/2006	2027	Thunderstorm Wind	2000	LAW ENFORCEMENT	The Georgia State Patrol reported that several trees were down on U.S. Highway 1 just wouth of Wadley.
47822	JEFFERSON CO.	STAPLETON	7/1/2007	1602	Thunderstorm Wind	2000	County Official	The Jefferson County 911 Center reported that a few trees and power lines were down in the Stapleton area in the far northern part of the county.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
55280	JEFFERSON CO.	WRENS	8/17/2007	1700	Thunderstorm Wind	2000	County Official	The Jefferson County 911 Center reported that several trees were down near and just east of Wrens.
55357	JEFFERSON CO.	LOUISVILLE	8/17/2007	1724	Thunderstorm Wind	4000	County Official	The Jefferson County 911 Center reported that many trees were down from Louisville southward toward Bartow. More than 10 trees were down in the Louisville area alone.
102224	JEFFERSON CO.	ALMIRA	5/11/2008	557	Thunderstorm Wind	500000	NWS Storm Survey	A damage survey conducted by the National Weather Service Forecast Office in Peachtree City, Georgia, concluded that strong straight-line winds of 60 to 70 mph up to one mile south of the EF0 tornado track across central Jefferson county caused moderate damage to structures in Louisville and minor to moderate damage to structures elsewhere along the path. A number of trees and power lines were downed as well.
105730	JEFFERSON CO.	LOUISVILLE	5/20/2008	1735	Thunderstorm Wind	10000	County Official	The Jefferson County 911 Center reported that several trees and power lines were down throughout the city of Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
114400	JEFFERSON CO.	WRENS	6/11/2008	1845	Thunderstorm Wind	3000	County Official	The Jefferson County 911 Center reported that several trees and a couple of power lines were down along Gamble School Road, southwest of Wrens.
123565	JEFFERSON CO.	WRENS	7/5/2008	1700	Thunderstorm Wind	500	Emergency Manager	The Jefferson County Emergency Management Director reported that one large tree limb was blown down onto a power line.
242838	JEFFERSON CO.	LOUISVILLE	6/20/2010	1405	Thunderstorm Wind	5000	County Official	The Jefferson County 911 Center reported that several trees and power lines were down in the northwest and west central part of the county, north through west of Louisville.
323132	JEFFERSON CO.	STAPLETON	6/15/2011	2020	Thunderstorm Wind	2000	County Official	The Jefferson County 911 Center reported that at least six trees were down across the northern portion of the county, mainly near Wrens. The damage was caused by a thunderstorm outflow boundary as an area of thunderstorms moved into the county from the north.
341313	JEFFERSON CO.	WADLEY	8/9/2011	1515	Thunderstorm Wind	3000	County Official	The Jefferson County 911 Center reported that over a dozen trees were down across the eastern and southeastern part of the county.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
355140	JEFFERSON CO.	STAPLETON	########	1618	Thunderstorm Wind	7000	Emergency Manager	The Jefferson County Emergency Management Director reported that several trees and power lines were down in the far northern part of the county, generally between Stapleton and Wrens.
379033	JEFFERSON CO.	LOUISVILLE	5/31/2012	1608	Thunderstorm Wind	500	County Official	The Jefferson County 911 Center reported that three trees were blown down on the southeast side of Louisville. One tree fell on power lines along Moore Street, and two additional trees fell along U.S. Highway 1.
384604	JEFFERSON CO.	WADLEY	6/10/2012	1847	Thunderstorm Wind	250	Law Enforcement	Law enforcement reported a tree down near Highway 1.
384606	JEFFERSON CO.	LOUISVILLE	6/10/2012	1905	Thunderstorm Wind	500	County Official	The Jefferson County 911 Center reported a couple of downed trees along Old U.S. Highway 1 in Louisville.
396857	JEFFERSON CO.	LOUISVILLE	7/3/2012	1412	Thunderstorm Wind	750	911 Call Center	The Jefferson County 911 Center relayed a report of three trees down in Louisville.
408879	JEFFERSON CO.	BARTOW	8/14/2012	1725	Thunderstorm Wind	2000	Public	The public reported that several trees and many large limbs were blown down, some blocking Highway 221.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
410360	JEFFERSON CO.	AVERA	9/2/2012	1645	Thunderstorm Wind	1500	911 Call Center	The Jefferson County 911 Center reported that half a dozen trees were blown down in the northern part of the county, mainly along Fenns Bridge Road southwest of Wrens.
436979	JEFFERSON CO.	WRENS	3/18/2013	1942	Thunderstorm Wind	120000	Emergency Manager	The Jefferson County Emergency Manager reported that numerous trees and power lines were blown down between Wrens and Louisville. Two houses had trees fall on them; on had minor and the other had major damage. Up to 22 roads were blocked by falling trees.
467979	JEFFERSON CO.	LOUISVILLE MUNI ARPT	7/17/2013	1745	Thunderstorm Wind	5000	911 Call Center	The Jefferson County 911 Center reported numerous trees and power lines down across the county.
496326	JEFFERSON CO.	WRENS	1/11/2014	1258	Thunderstorm Wind	250	Emergency Manager	The Jefferson County Emergency Manager reported a tree down in Wrens.
518649	JEFFERSON CO.	WRENS	5/25/2014	1950	Thunderstorm Wind	1000	911 Call Center	The Jefferson County 911 Center reported that two power lines were blown down at houses along Hill Street.
549350	JEFFERSON CO.	ZEBINA	########	1820	Thunderstorm Wind	8000	911 Call Center	The Jefferson County 911 Center reported multiple trees blown down in Wrens and Louisville. One tree fell on a house in Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
592272	JEFFERSON CO.	WADLEY	7/2/2015	1536	Thunderstorm Wind	0	Emergency Manager	The Jefferson County Emergency Manager reported trees down along Clarks Mill Road near and on East Railroad Street in Wadley.
598793	JEFFERSON CO.	WADLEY	8/6/2015	1658	Thunderstorm Wind	1000	911 Call Center	The Jefferson County 911 Center reported a tree blown down on North Main Street in Wadley.
653867	JEFFERSON CO.	LOUISVILLE	7/19/2016	1630	Thunderstorm Wind	1000	Emergency Manager	The Jefferson County Emergency Manager reported trees blown down in Louisville.
671716	JEFFERSON CO.	CUNNINGHAM CORNER	1/21/2017	1415	Thunderstorm Wind	5000	Public	The public reported trees blown down along Highway 78 to just east of Highway 17.
717203	JEFFERSON CO.	PADGETT CROSSING	7/20/2017	2215	Thunderstorm Wind	1000	Public	The public reported numerous large limbs blown down at Bug's Gourd Farm near the intersection of Highways 88 and 22 southwest of Keysville.
743504	JEFFERSON CO.	WRENS	3/20/2018	100	Thunderstorm Wind	8000	911 Call Center	The Jefferson County 911 center reported a few trees and power lines blown down from Wrens to Louisville.
769692	JEFFERSON CO.	LOUISVILLE	7/3/2018	1600	Thunderstorm Wind	2000	Emergency Manager	The Jefferson County Emergency Manager reported a couple of trees blown down in Louisville.
841974	JEFFERSON CO.	MATHEWS	6/22/2019	1509	Thunderstorm Wind	15000	Emergency Manager	The Jefferson County Emergency Manager reported trees blown down onto a home on Campground Road near Highway 1. No injuries were reported.

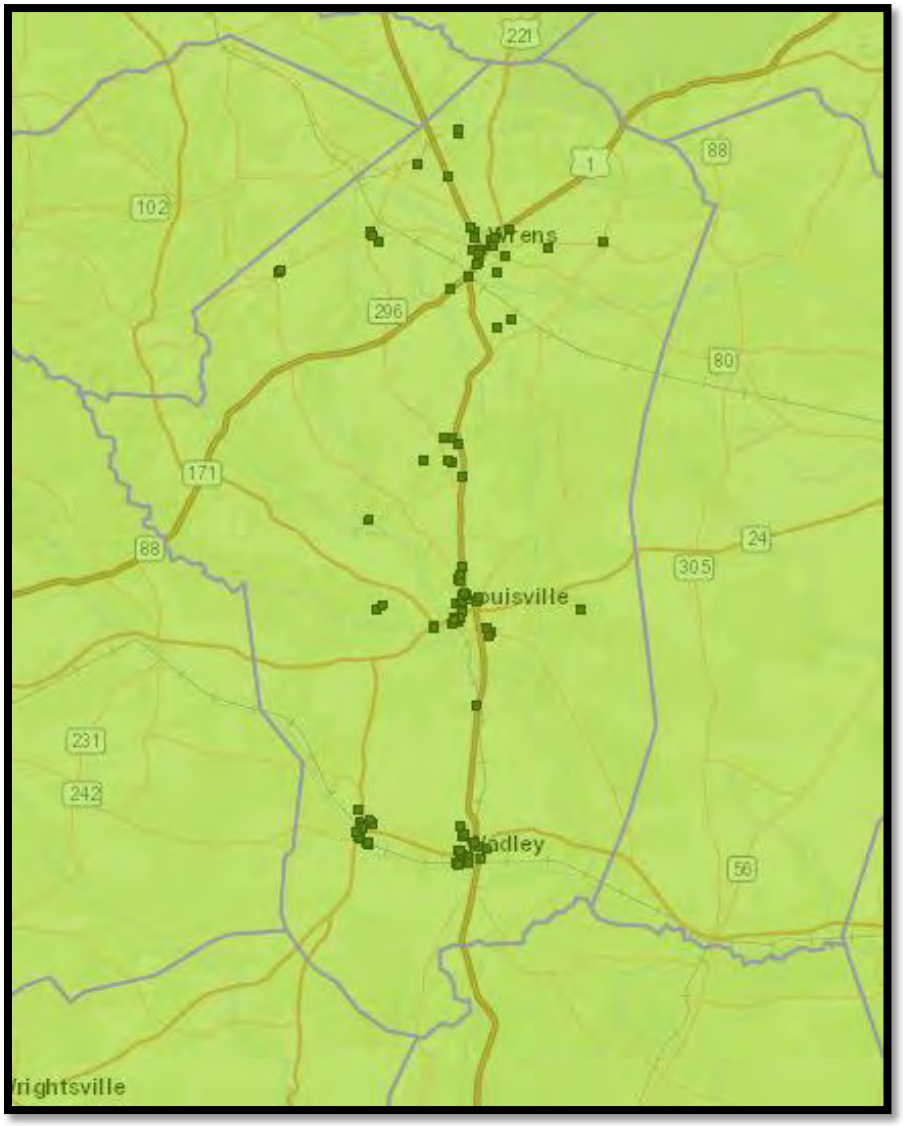
Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
849865	JEFFERSON CO.	MOXLEY	8/23/2019	1806	Thunderstorm Wind	3000	Emergency Manager	The Jefferson County Emergency Manager reported trees blown down along Highway 1 north of Wadley.
893468	JEFFERSON CO.	OMAHA SPRINGS	4/13/2020	320	Thunderstorm Wind	1000	Emergency Manager	Large tree down on Clarks Mill Road, between Avera and Hwy 540 West.
893469	JEFFERSON CO.	LOUISVILLE	4/13/2020	335	Thunderstorm Wind	10000	Emergency Manager	EM reported multiple trees down around the city of Louisville.
1022687	JEFFERSON CO.	LOUISVILLE	4/5/2022	1618	Thunderstorm Wind	0	Emergency Manager	Powerlines reported down along US-1 near the intersection of Wilcher Rd.
1022688	JEFFERSON CO.	LOUISVILLE	4/5/2022	1618	Thunderstorm Wind	1000	Emergency Manager	Tree down in yard along the 1900 block of Hwy 24.
1022689	JEFFERSON CO.	BARTOW	4/5/2022	1620	Thunderstorm Wind	1000	Emergency Manager	Tree down near the intersection of Hwy 221 and Hwy 319.
1022691	JEFFERSON CO.	ZEBINA	4/5/2022	1622	Thunderstorm Wind	0	Emergency Manager	A few trees reported down near the intersection of Zebina Rd and Shady Oaks.
1022690	JEFFERSON CO.	STELLAVILLE	4/5/2022	1622	Thunderstorm Wind	0	Emergency Manager	A metal outdoor structure damaged in addition to trees and powerlines down near the intersection of Campground Rd and Hwy 80.
1034266	JEFFERSON CO.	WRENS MEML ARPT	5/6/2022	1519	Thunderstorm Wind	0	Emergency Manager	Multiple trees reported down along Hwy 221 N between Airport Rd and Ellis Cemetery Rd.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
1034267	JEFFERSON CO.	WRENS MEML ARPT	5/6/2022	1524	Thunderstorm Wind	0	Emergency Manager	Several trees down on Hwy 221 North near the Jefferson/McDuffie County line.
1074971	JEFFERSON CO.	AVERA	1/4/2023	916	Thunderstorm Wind	0	Emergency Manager	Multiple trees down along and near intersection of GA-296 and GA-88.
1074972	JEFFERSON CO.	ZEBINA	1/4/2023	918	Thunderstorm Wind	0	Emergency Manager	Trees and powerlines down at Hwy 296 near Jefferson County Middle School.
1138594	JEFFERSON CO.	WADLEY	8/15/2023	1658	Thunderstorm Wind	7000	State Official	The 911 call center reported 7 trees down in Wadley, GA.
1138595	JEFFERSON CO.	PINE HILL	8/15/2023	1708	Thunderstorm Wind	10000	Public	Public report of multiple trees down along Bostic Mill Road between US Hwy 221 and Lonnie Purvis Road.
1158602	JEFFERSON CO.	LOUISVILLE	1/9/2024	1253	Thunderstorm Wind	1000	Emergency Manager	Tree downed on a house along Foley St in Louisville.
						$929,750.00		

JEFFERSON COUNTY GMIS WIND MAP



Score	Original Value	Description
5	> 120 mph	3 second gust greater than 120 mph
4	110 to 119 mph	
3	100 to 109 mph	
2	90 to 99 mph (or ZONE IV)	This score is also given to an area with Zone IV of the "Design Wind Speed Map for Community Shelters," representing an area exposed to 250 mph winds. This area is the Northwestern corner of the state.
1	< 90 mph	

Winter Storm

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 high winds, ice and freezing rain, heavy snowfall, and cold temperatures. These conditions can make driving conditions very dangerous, as well as bring down trees and power lines.

Winter storms are not spatially defined and affect the entire planning equally. There have been 17 recorded winter storms in Jefferson County in the last 74 years. There is an 23% chance of an winter storm event every 4 years. 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 40,626 structures/properties in the county totaling slightly less than $1.3 billon with a population of 16,930.

Winter Weather_ Jefferson County

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5138950	JEFFERSON		4/9/2000	500	Extreme Co	OFFICIAL N	Following the strong cold frontal passage of the previous day, unseasonably cold air spread over north and central Georgia. Record low temperatures for the date were set or tied at all 4 of the major airports in north and central Georgia. Hartsfield Airport in Atlanta established a new record at 32 degrees, breaking the old mark of 33 set in 1914. At Macon's municipal Airport the new record of 32 broke the previous record of 33 set in 1985. In Columbus the new mark was 34 which broke the old record of 37 set in 1971. In Athens at Ben-Epps Airport the 32 degree reading tied the previous record low for this date set in 1972.
5153841	JEFFERSON		6/7/2000	500	Extreme Co	OFFICIAL N	An unseasonably strong Canadian high pressure system settled over the state causing minimum temperatures to drop into the 50s over most of north and central Georgia. At Ben-Epps Airport in Athens, a new record low of 50 degrees was set which broke the previous record of 54 degrees set in 1976. Although readings in the 50s were widespread elsewhere, the minimums fell just shy of record levels.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5159864	JEFFERSON		10/8/2000	0	Extreme Co	OFFICIAL N	A very large Canadian high pressure system settled over the southeastern United States following the cold frontal passage of the 6'th. This high pressure system brought unseasonably cold air to the state. Morning low temperatures from the 8'th through the 13'th were 20 to 25 degrees below normal, while high temperatures were 10 to 15 degrees below normal through the period. Frost was widespread across north and central Georgia, while freezing temperatures were observed in a number of cities. A number of locations in the northeast Georgia mountains recorded lows in the middle to upper 20s. Temperatures near 32 were common across north and central Georgia during this period. Many places reported their first freeze of the fall season a month or more earlier than the seasonal average.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5178100	JEFFERSON		12/1/2000	0	Extreme Co	OFFICIAL N	December 2000 was one of the coldest December's on record for much of north and central Georgia. In Atlanta, the monthly average temperature of 37.2 degrees F was the 4th coldest December on record, exceeded only in 1917 and 1935 with 36.2 degrees F and 1963 with 35.5 degrees F. There was a string of ten consecutive days with minimum temperatures 32 degrees F or lower occurring from December 17th through December 26th. The last time that there were 10 or more consecutive days with minimum temperatures 32 degrees F or lower was in December of 1995. There were a total of 20 days during the month that the minimum temperature dropped to or below freezing. In addition, there were 7 days on which the minimum temperature dropped below 20 degrees F in Atlanta, with 13 degrees F on the 20th being the lowest . There were even three days, the 21st, 22nd, and the 30th on which the maximum temperature even failed to rise above freezing. The story was similar across north and central Georgia with Athens reporting an average monthly temperature of 36.9 degrees F, 15 consecutive days of minimum temperatures below freezing from the 17th through the end of the month, a total of 23 days during the month which the minimum dropped to or below freezing, and a minimum temperature for the month of 15 degrees F on the 20th. At Macon, the average monthly temperature was 39.3 degrees F, there were 11 consecutive days on which the minimum dropped to or below freezing from the 17th through the 27th, and 22 days total for the month on which the minimum dropped to or below freezing, with the lowest temperature of 17 degrees F on the 20th. At Columbus, the average monthly temperature was 41.2

EVENT_ID	CZ_NAME_S	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5266304	JEFFERSON		9/26/2001	0	Extreme Co	OFFICIAL N	The first major Canadian high pressure system of the fall season brought record to near record low temperatures across much of north and central Georgia. Record low temperatures were recorded at Atlanta, Athens, and Columbus during the early morning hours of the 26th. At Atlanta's Hartsfield International Airport, a new record low of 43 degrees was recorded, which broke the previous record of 46 degrees set in 1940. Athens tied their record low of 45 degrees set in 1950 while Columbus reported a new record low of 48 degrees, breaking the previous record of 50 degrees set in 1990. Low temperatures in the 40s were widespread across north and central Georgia, while many locations in the north reported lows in the middle to upper 30s, with some locations in the northeast mountains dropping as low as the lower 30s. Similar low temperatures were observed on the 27th, but no record lows were reported. Normal low temperatures for this time of year are in the upper 50s and lower 60s.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5268568	JEFFERSON		10/27/2001	0	Extreme Co	OFFICIAL N	An unseasonably cold Canadian air mass invaded the southeastern United States behind a strong cold front which moved through the state early on the 25th. The heart of the cold air mass reached north and central Georgia on the 27th. By the morning of the 27th, morning low temperatures had dropped into the 30s across most of north and central Georgia. Highs struggled to rise to 50 in the north and to 60 in the central. Some stations in Northeast Georgia remained in the 40s all day with strong gusty winds. These temperatures were some 20 degrees below normal for the date. By the morning of the 28th, a hard freeze was observed across nearly all of north and central Georgia with lows dropping well into the 20s. Blairsville in Northeast Georgia recorded 21 degrees on the 28th and Peachtree City recorded a low of 23. Similar readings were observed on the 29th. While afternoon temperatures rose back into the 60s, morning lows continued to drop below freezing at many locations through the 31st. Only the Columbus area escaped the unusually early harsh cold reporting its coldest temperature of 34 degrees on the 29th. Macon set a record low temperature for two consecutive days with a low temperature of 27 on both the 28th and 29th. These readings broke record lows of 28 each day set in 1957 and 1976, respectively.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5277847	JEFFERSON		1/2/2002	500	Winter Stor	OFFICIAL N	The same storm which brought heavy snow to much of north and central Georgia from the 2nd to the 3rd first began across the southeast portion of central Georgia. From early morning through mid-evening on the 2nd about a 12 hour period of wet snow, sleet, and light freezing rain affected these areas. Ice accumulations averaged less than one-quarter inch, but were significant enough, when combined with a wet snow in some areas, to cause large tree limbs, and even some trees (especially pines), to fall on power lines, roads, and even some homes. Several power outages resulted. The hardest hit counties with glaze ice accumulations from freezing rain, freezing drizzle, and snow were Washington, Johnson, Jefferson, Emanuel, and Laurens counties. All together, several hundred trees were damaged or destroyed and thousands of people in these counties lost power during the 2-day storm. Many people did not have any power for 3 days or more. Emergency electrical crews were called out from out-of-state to assist with the cleanup and restoration of power.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5276932	JEFFERSON		1/2/2002	600	Heavy Snov	EMERGENC	one of the biggest snow storms to affect north and central Georgia since March 1993 began early on the 2nd and continued through mid-day on the 3rd. Over a half a foot of snow fell in some areas just south and southwest of Atlanta, with large areas of north and central Georgia receiving three to four inches of snow during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the two-day storm ranged from four to six inches in a large approximately 100 mile wide area centered along a line from La Grange, to Atlanta, to Athens, to Homer. Some areas between Carrollton and Newnan

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5279134	JEFFERSON		2/26/2002	1800	Extreme Co	OFFICIAL N	An unseasonably strong late season Arctic cold front raced through north and central Georgia during the mid-day and afternoon hours of the 26th on the heels of 20 to 30 mph northwest winds. Some of the coldest temperatures of the winter season resulted during the ensuing two days. Temperatures during the morning of the 27th were in the teens across much of north Georgia and in the lower and middle 20s across the central sections. Continuing strong winds drove wind chills down to near zero and below. Temperatures struggled to rise to the freezing mark in the north and to near 40 in the central by afternoon, despite abundant sunshine. By the morning of the 28th, the arctic high was centered very near north Georgia resulting in one of the coldest mornings of the winter season. Single-digit temperatures were reported in the northeast mountains, with teens just about everywhere else across north and central Georgia. Blue Ridge dropped to 6 degrees above zero and Blairsville to 8 degrees. Columbus, Hawkinsville, and Dublin in central Georgia were the only locations not to drop below 20 degrees during the morning of the 28th with 20, 21, and 22 degrees, respectively. On the 28th, Macon set a new record low minimum with 19 degrees and Columbus tied their record low minimum with 22 degrees. Minimum and maximum temperatures averaged some 20 to 30 degrees below normal across all of north and central Georgia during this 2-3 day period.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5281429	JEFFERSON		3/1/2002	0	Extreme Co	OFFICIAL N	The second Arctic cold front to affect Georgia within a one week period surged through north and central Georgia during the morning and early afternoon of the 3rd. Temperatures were just beginning to moderate from the extreme cold observed during the last couple of days of February. For example, Macon still set a new record low temperature of 20 degrees Fahrenheit on March 1st. Temperatures during the first 5 days of March averaged around 15 degrees below normal, but the height of the cold outbreak occurred on the 4th and 5th when temperatures averaged about 20 degrees below normal across most of north and central Georgia. While this Arctic blast was slightly less intense than the one which affected the same area the last couple of days of February, it was certainly significant. High temperatures on the 4th struggled to rise above the freezing mark across north Georgia and struggled to rise into the 40s across central Georgia, after widespread morning lows of 20 to 25 and teens in the north mountains. The coldest readings were observed during the morning of the 5th when lows of 15 to 20 were common in the north and 20 to 25 in the central. Blairsville in the northeast Georgia mountains recorded a low of 12 degrees on the morning of the 5th for the lowest reading.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5339649	JEFFERSON		1/11/2003	0	Extreme Co	OFFICIAL N	An extended period of below normal temperatures was observed as a Polar vortex in the northeastern United States provided a cold northwest flow to the region. A series of Canadian/Arctic air masses invaded the region during the period. Temperatures averaged 10 to 20 degrees below normal during the period, with a hard freeze recorded at most location nearly every day between the 11th and the 19th. On the 18th, a strong Arctic high pressure system caused minimum temperatures to drop into the teens in most areas...with some single digit temperatures in the northeast mountains.
5338580	JEFFERSON		1/23/2003	800	Extreme Co	OFFICIAL N	A strong Arctic cold front sent temperatures to their lowest level in several years across north and central Georgia. As the cold front moved through temperatures dropped through the 20s during the day and into the teens by evening accompanied with northwest winds of 25 to 35 mph with higher gusts. By midnight several locations were already below 10 degrees. Minimum temperatures bottomed out in the single digits over nearly all of north Georgia Friday morning, January 24th, with lows mostly in the mid teens in central Georgia. Hiawassee in Towns county recorded the statewide low with -2 degrees F. Some locations in north Georgia failed to rise above the freezing mark for slightly over two days. Several county school districts across the north part of the state were closed on the 23rd and/or 24th because of the extreme cold

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5435773	JEFFERSON		1/28/2005	2000	Winter Stor	GOVT OFFI	A significant and fairly prolonged winter storm affected nearly all of North and Central Georgia from the evening of Friday January 28th to late morning on Sunday January 30th. The winter storm was a result of a very strong and very cold Arctic surface high pressure system located across the Mid-Atlantic states and an upper-level disturbance moving across the region from the west. North of a line from La Grange, to Thomaston, to Sandersville, the precipitation fell mostly as a mixture of sleet and freezing rain, with typical accumulations of one-half inch glaze ice and one to two inches of sleet. Some areas in North Central and Northeast Georgia experienced significant glaze ice accumulations of three-fourths to one inch. Further south, mainly south of a La Grange, to Thomaston, to Sandersville line, most of the frozen precipitation fell as freezing rain, with 1/4 to 1/2 inch accumulations of glaze ice common as far south as McRae, Abbeville, and Americus. In the southern areas, however, the ice accumulations were generally confined to trees, power lines, and other exposed objects with little or no accumulation of ice on the ground. Extensive damage to trees and power lines were reported throughout the area, especially in North Central, Northeast, and Central Georgia. Damage estimates were in the millions. Numerous vehicle accidents were also reported on the slick ice and sleet covered roads, especially in the Atlanta Metropolitan area. The summary below provides ice and sleet accumulations by county for this event as well as damage information received for that county. The ice and sleet accumulations were largely provided by the county 911 centers or respective Emergency Management Directors. The

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
32456	JEFFERSON		4/7/2007	400	Frost/Freez	Other Fede	A deep upper low and over the northeast U.S. and associated large Canadian surface high pressure area brought record cold to much of the eastern U.S. during the Easter weekend. Temperatures averaged a good 20 degrees below normal during the period. Freezing temperatures were observed each morning from the 7th through the 9th, but the 7th and 8th brought the most widespread and coldest temperatures to the region. Lows in the 20s were common across much of north and central Georgia, with lower 20s in parts of the northeast Georgia mountains. Average freeze dates for most of north and central Georgia are in late March. Farmers in all of the 96 north and central Georgia counties within the Peachtree City, Georgia forecast area were declared eligible for federal loans as a result of the unusually late hard freeze. The unseasonably cold and freezing temperatures resulted in the loss of nearly 100 percent of the wine grape crop, 86 percent of the blueberry crop, 78 percent of the peach crop, 41 percent loss of grasses, 40 percent of grain loss (corn and wheat), and 29 percent loss of pecan crops. Of these crops, wine grapes are nearly all grown in north Georgia and a substantial portion of the peach crop is grown in central Georgia, both within Peachtree City, Georgia's forecast area. Total losses for the entire state as a result of the freeze were estimated at $258 million, of which 50 to 60 percent of this was estimated to be within the Peachtree City, Georgia forecast area.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
216840	JEFFERSON		2/12/2010	1530	Heavy Snov	County Offi	[illegible] States. An associated area of surface low pressure was moving from the central into the eastern Gulf of Mexico. An Arctic air mass lingered across the eastern U.S. Very cold air aloft and the cold Arctic surface air mass combined with the overrunning Gulf moisture and upper dynamics to produce the most widespread snow observed across north and central Georgia in several years. All 96 counties within the Peachtree City, Georgia forecast area observed measurable snow, indeed a rarity at any time. Average snowfall across most of north and central Georgia was in the two to three inch range. Snowfall amounts ranged from less than one inch in Telfair county, to one inch in Dade county, to three to four inches in the Atlanta metropolitan area, to six inches in parts of Stewart county. Specific details of the maximum snowfall observed or reported for each county are as follows; Baldwin - 3.0 inches, Banks - 3.5 inches, Barrow - 2.0 inches, Bartow - 3.0 inches, Bibb 3.0 inches, Bleckley - 4.0 inches, Butts - 4.0 inches, Carroll - 2.5 inches, Catoosa - 2.0 inches, Chattahoochee - 3.0 inches, Chattooga - 2.0 inches, Cherokee - 3.5 inches, Clarke - 5.0 inches, Clayton - 4.0 inches, Cobb - 4.0 inches, Coweta - 3.0 inches, Crawford - 4.0 inches, Crisp - 1.0 inch, Dade - 1.5 inches, Dawson - 2.0 inches, DeKalb - 4.0 inches, Dodge - 3.0 inches, Dooly - 4.0 inches, Douglas - 3.5 inches, Emanuel - 4.0 inches, Fannin - 2.5 inches, Fayette - 4.0 inches, Floyd - 3.0 inches, Forsyth - 3.0 inches, Fulton - 4.0 inches, Gilmer - 3.0 inches, Glascock - 5.0 inches, Gordon - 3.0 inches, Greene - 4.0 inches, Gwinnett - 3.0 inches, Hall - 3.0 inches, Hancock - 3.0 inches, Haralson - 3.0 inches, Harris - 4.0 inches, Heard - 2.5 inches,

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
275146	JEFFERSON		12/25/2010	2100	Winter Wea	County Offi	[illegible] southeastern U.S. from the 25th through the 26th. Ample Gulf moisture was present across the region in advance of the upper trough to support widespread light to moderate rain. Sufficient residual cold air was present in advance of this system that rain quickly changed over to snow across north Georgia with dynamic cooling and additional cold air spreading southward as the attendant surface low moved from the eastern Gulf coastal region during the afternoon of the 25th to off the South Carolina/North Carolina coast by the morning of the 26th. This system later produced a major blizzard in the northeastern U.S. Snowfall of six to eight inches was common across many north Georgia counties, with snowfall of three to four inches common across the north Atlanta metropolitan counties and one to two inches across the south Atlanta metropolitan counties. Only a trace to one-half inch of snowfall was reported further south toward Columbus and Macon, where snow fell only briefly at the end of the precipitation event. Snow lingered in east central Georgia counties on the 26th as the surface deepened off the South Carolina/North Carolina coast. Snow showers and flurries lingered across much of north Georgia and even the northern parts of central Georgia on the 26th as temperatures struggled to even rise above freezing across north Georgia. For Atlanta, this was the first measurable snowfall on Christmas day since 1881. In addition, the 1.3 inches of snowfall that fell at the Atlanta airport before midnight on the 26th was just shy of the 1881 record of 1.6 inches of snowfall for Christmas day. The snowfall fell at a very busy travel time and combined with the subsequent

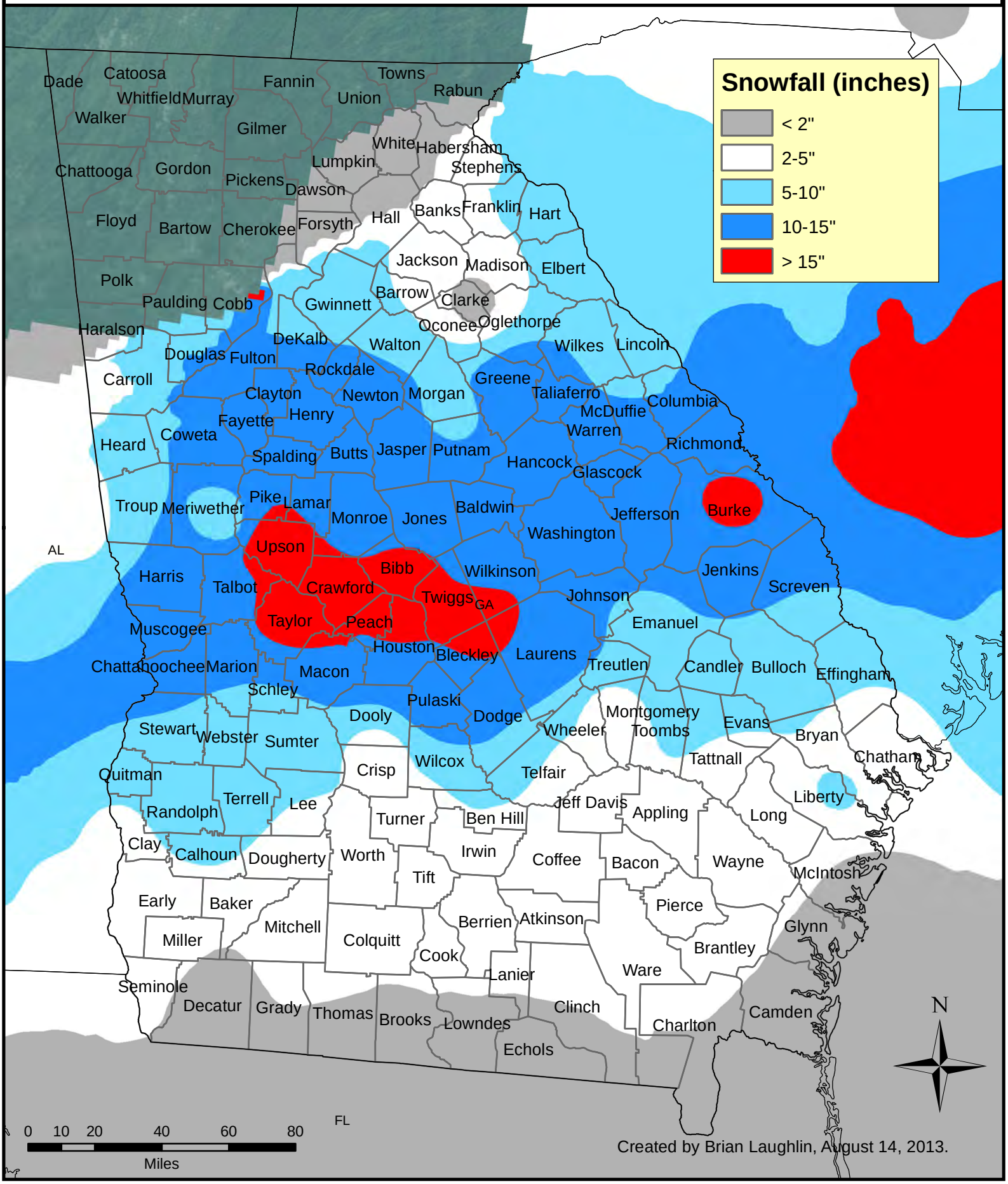
EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
501829	JEFFERSON		2/12/2014	700	Ice Storm	Emergency	The second major winter storm in as many weeks hit north and central Georgia on February 12th. An area of extremely strong cold air damming moved down the Eastern Seaboard and into north Georgia on the 12th. Southwest flow aloft allowed significant moisture to move across the Southeast, with a disturbance pushing across the southern tier of the country. A surface low developed in the northern Gulf on the 12th, pushing into extreme Southeast Georgia on the 13th. Moisture overspread the area in advance of the surface low and with cold surface temperatures in place from the cold air damming, another significant winter storm hit the area.||This storm was different from the storm two weeks prior for two main reasons: firstly, residents across north and central Georgia were well-prepared for the event, and secondly, this storm brought with it catastrophic accumulations of ice along the Interstate 20 corridor east of Atlanta towards Athens. Significant amounts of snow fell in north Georgia as well. The crippling nature of this winter storm, unlike the first, was not necessarily due to the societal impacts but rather to the significant accumulations of ice and snow and resulting widespread power outages.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
733795	JEFFERSON		1/17/2018	500	Winter Wea	Emergency	A strong surface low and cold front associated with a large and deep upper-level trough, brought light to moderate snow to much of north and central Georgia from the afternoon of the January 16th through the morning of January 17th. With most of the precipitation post-frontal, temperatures were well below freezing (lower to mid 20s) as the snow occurred. This resulted in widespread icy and snow-packed roadways across the area, especially those that were not pre-treated by GDOT or Public Works.

February 9-11, 1973 Winter Storm

RSI = 12.52, Category 4

NOAA

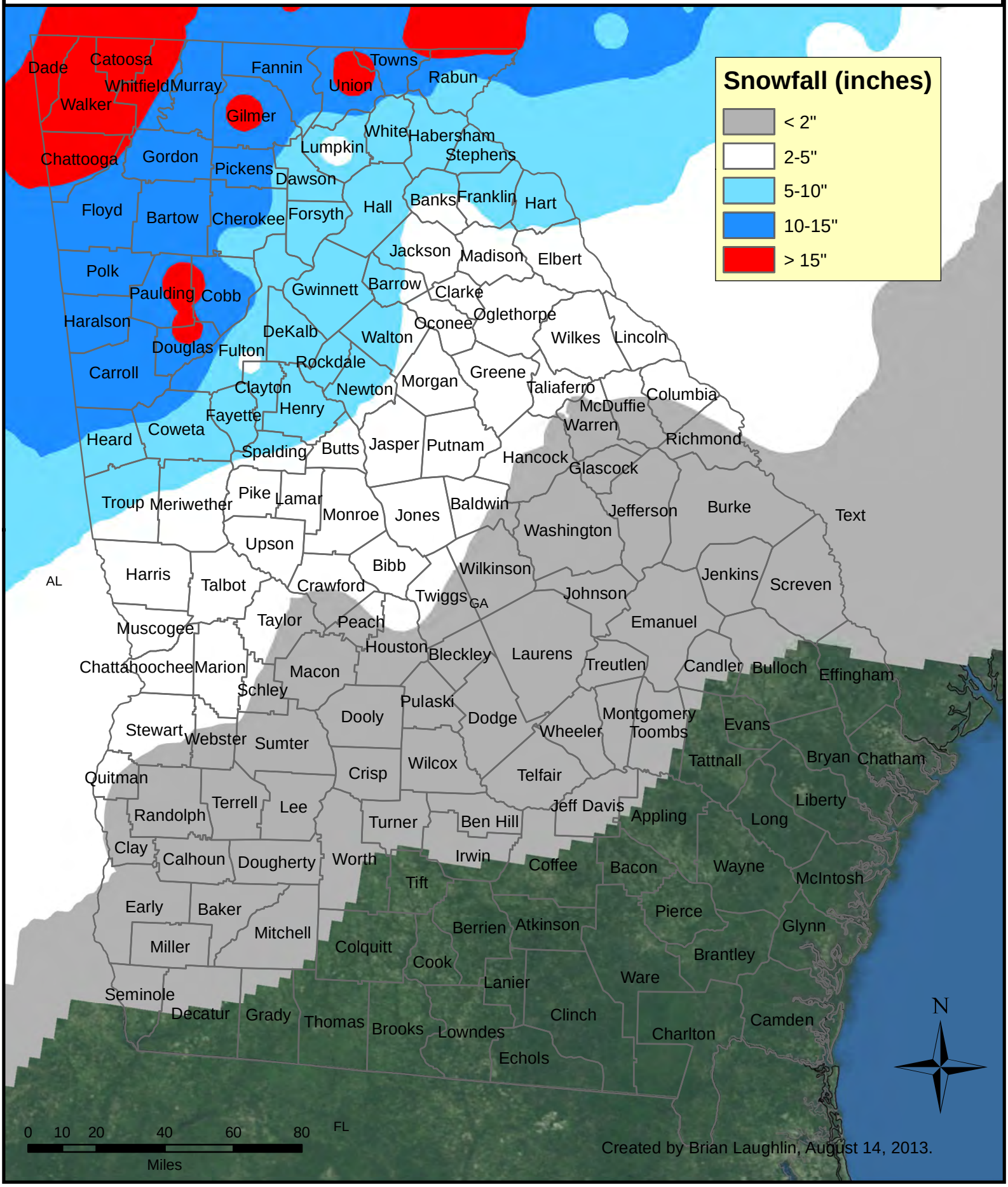


Created by Brian Laughlin, August 14, 2013.

March 12-15, 1993 Winter Storm

RSI = 20.572, Category 5

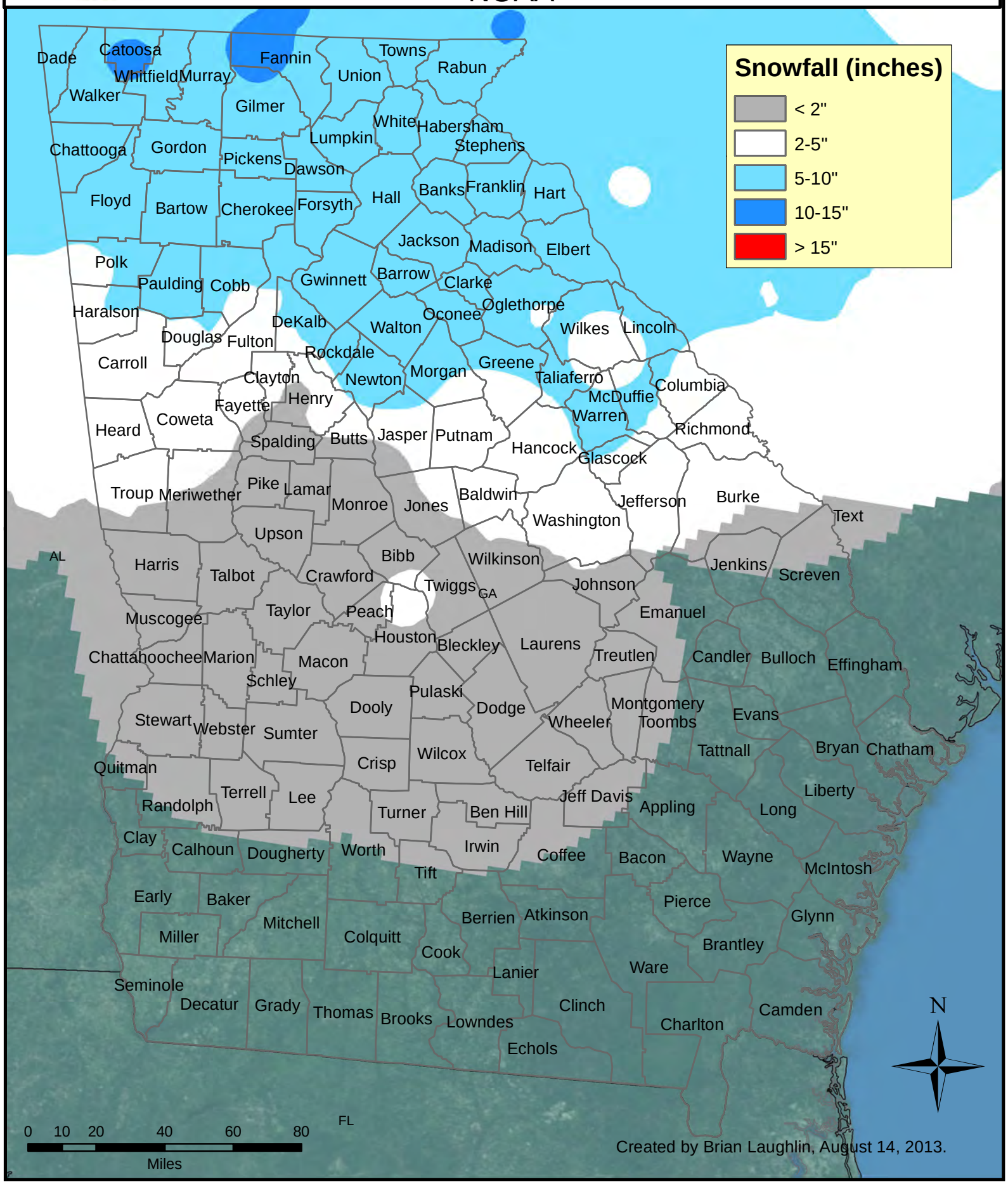
NOAA



January 9-11, 2011 Winter Storm

RSI = 4.158, Category 2

NOAA



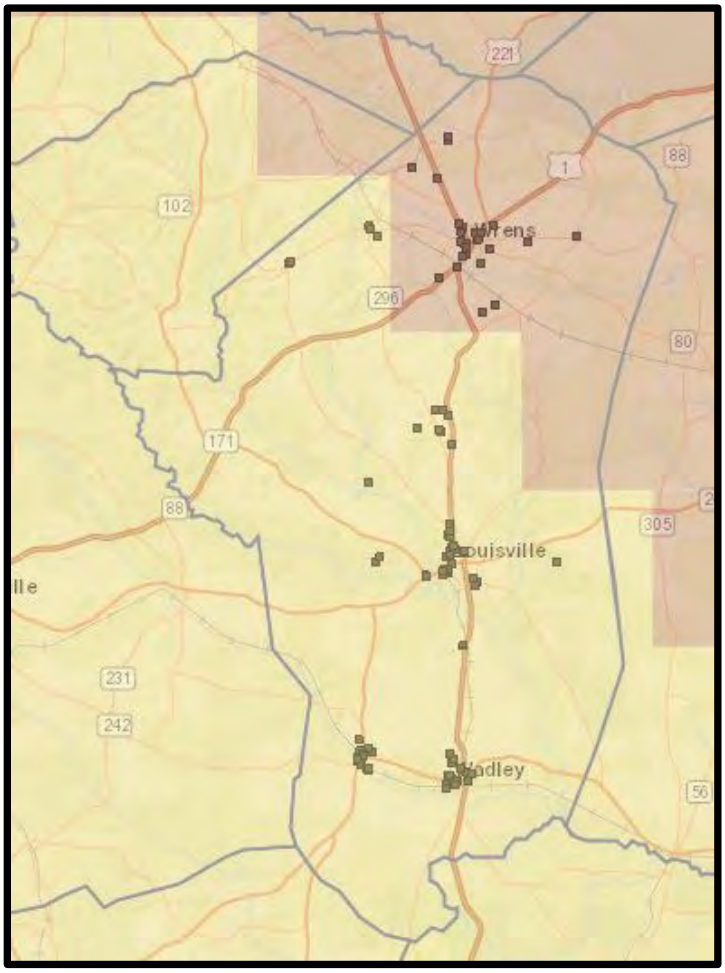
EARTHQUAKE

Earthquakes are one of nature’s most damaging hazards. An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of Earth’s tectonic plates. The severity of these effects is dependent on the amount of energy released from the fault or epicenter. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and after just a few seconds can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. If the earthquake occurs in a populated area, it may cause many deaths, injuries and extensive property damage.

Magnitude and intensity measure different characteristics of earthquakes. Magnitude measures the energy released at the source of the earthquake and is determined from measurements on seismographs. Intensity measures the strength of shaking produced by the earthquake at a certain location and is determined from effects on people, human structures, and the natural environment.

There has never been a reported earthquake event events reported in the last 68 years. Based on a 20-year cycle hazard history there is less than a 1% probability of an annual earthquake event. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly less than $1.3 billon with a population of 16,930.

Jefferson County Seismic Georgia Mitigation Information System

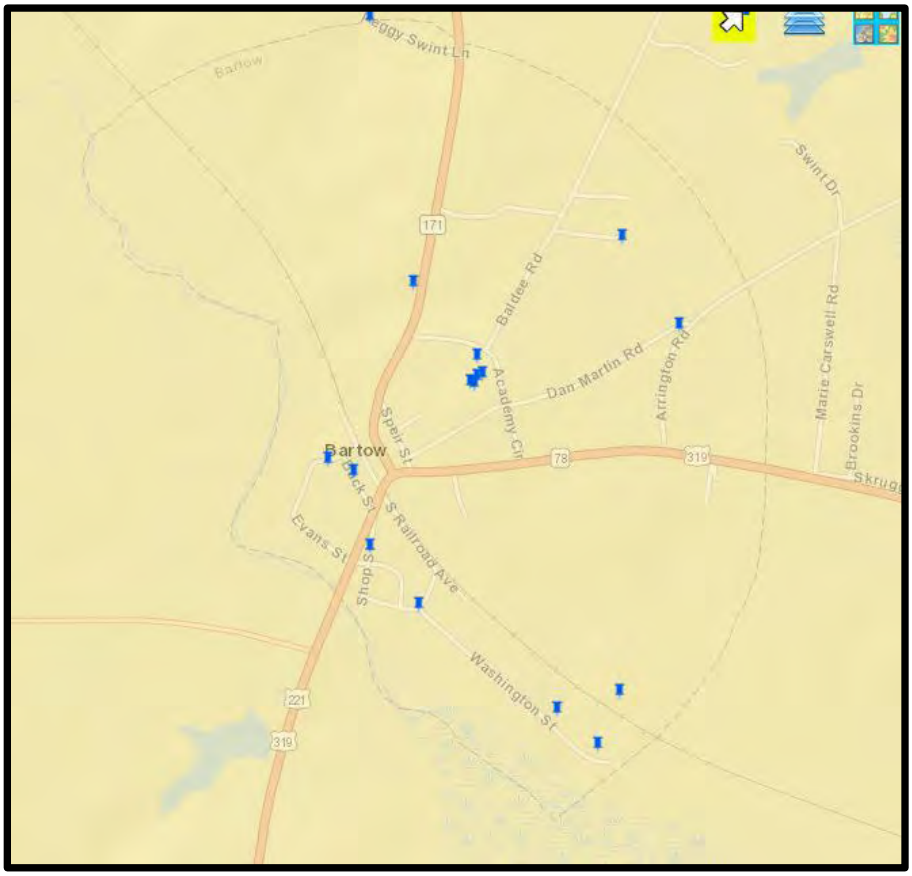


	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Avera Seismic Georgia Mitigation Information System

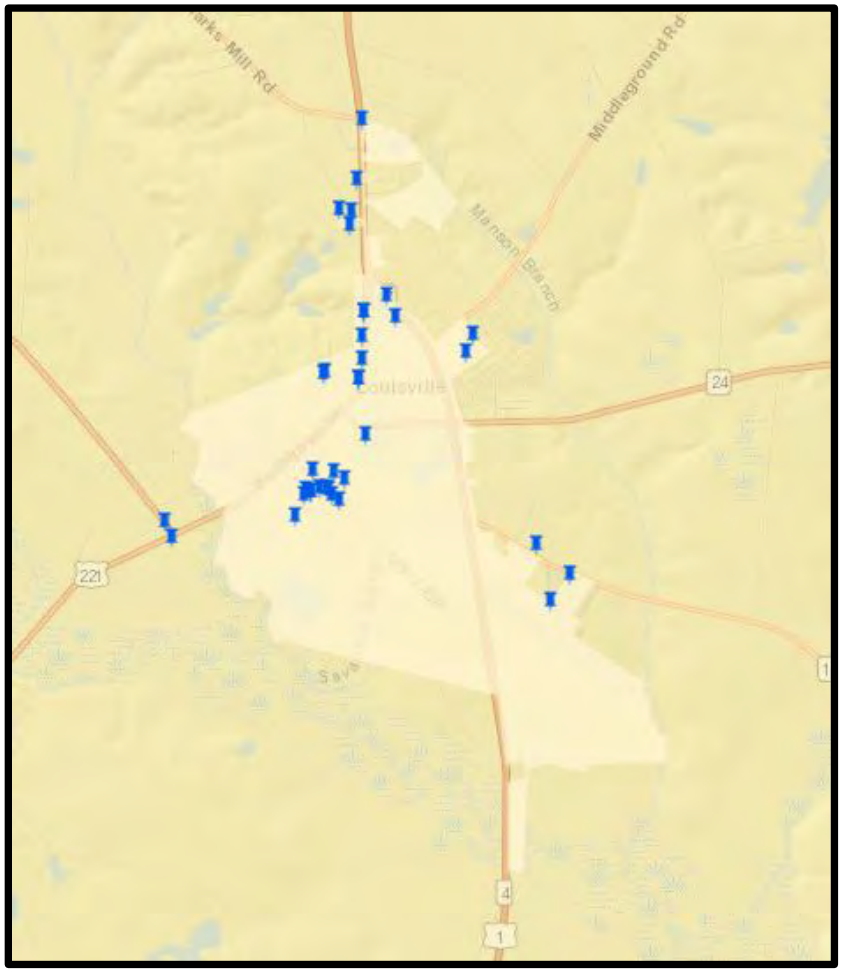
	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Bartow Seismic Georgia Mitigation Information System



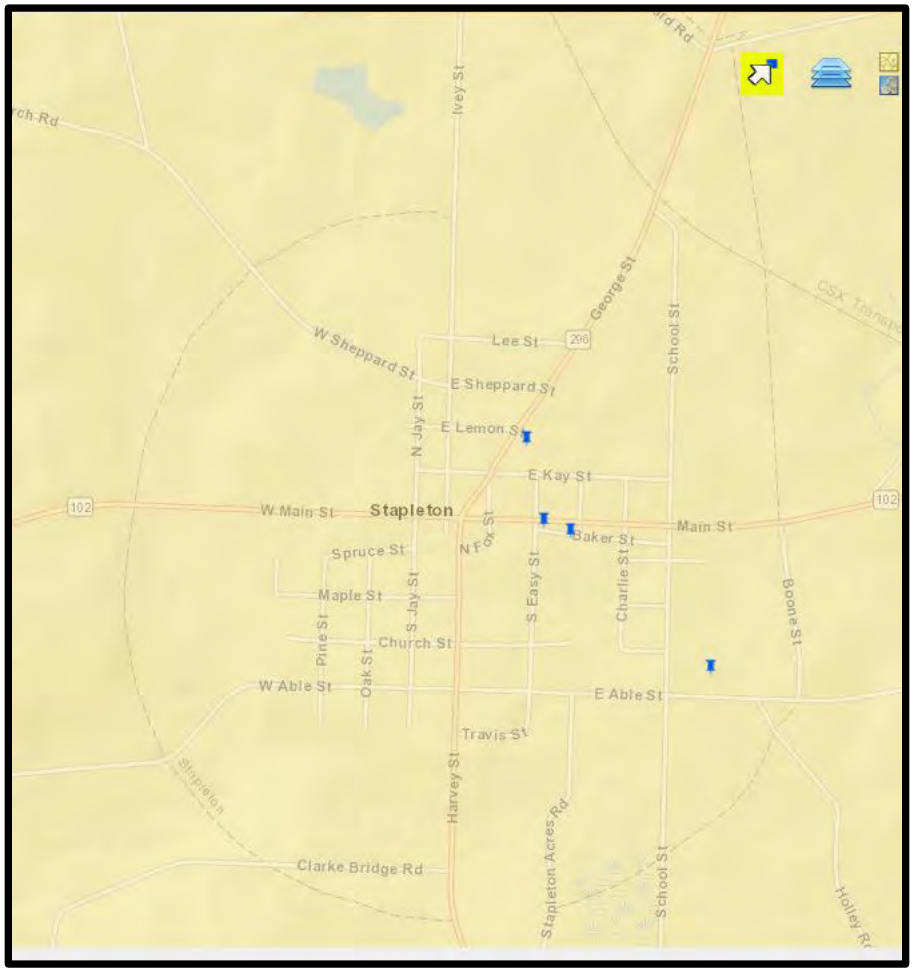
	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Louisville Seismic Georgia Mitigation Information System



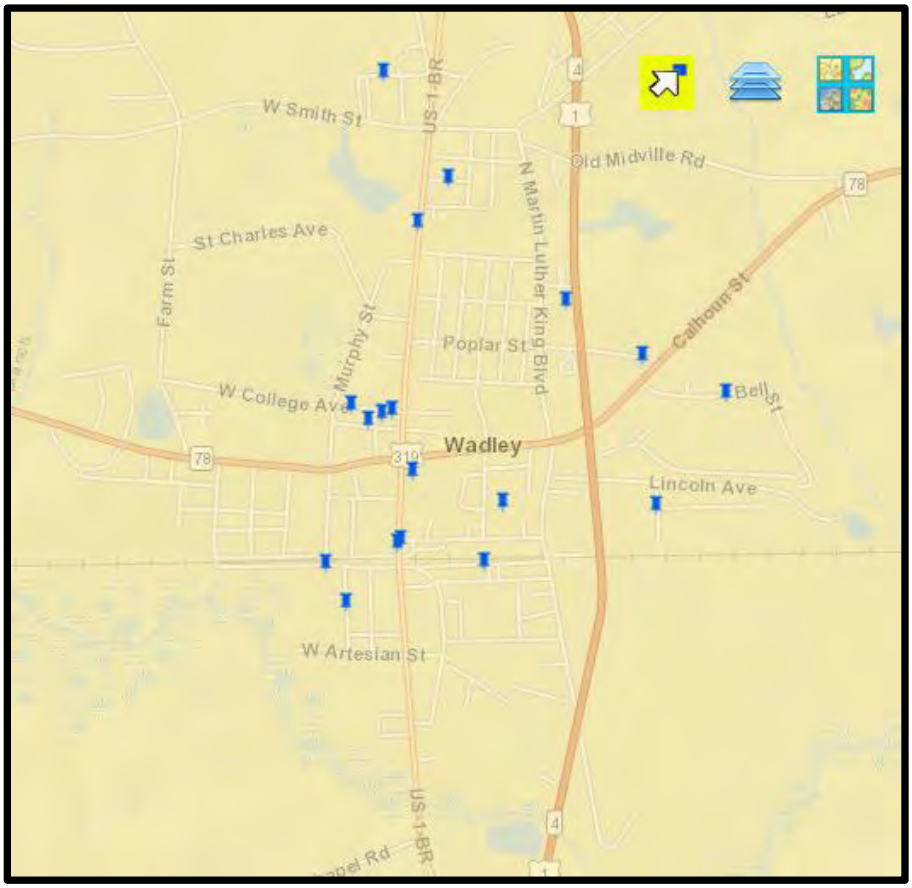
	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Stapleton Seismic Georgia Mitigation Information System



	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Wadley Seismic Georgia Mitigation Information System



	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Wrens Seismic Georgia Mitigation Information System

	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*	Not applicable	All other values

APPENDIX B

GROWTH
AND
DEVELOPMENT TRENDS
COMMUNITY INFORMATION

FLOOD

Flood plains are relatively flat lands that border streams and rivers that are normally dry, but are covered with water during floods. 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 in order to construct a building, then valuable water storage areas and recharge areas are lost. This causes unnecessary flooding in previously dry areas and can damage buildings or other structures.

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 period can result in flash flood conditions. A small amount of rain can also result in floods in locations where the soil is saturated from a previous wet period or if the 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 in that water runoff is greater in areas with steep slopes and little or no vegetation.

While severe flooding within Jefferson County is a relatively infrequent event. The county has 54 streams/rivers, 39 reservoirs and three lakes which makes the potential for flooding significant. There have been eight flooding events recorded in the last 89 years. These events resulted in school closings, roads washing out and $2.1 million in property damages. The flood of 1990 also caused a dam failure. The Jefferson County Hazard Frequency table calculates a 9.47% chance of an annual flooding event. Hazard frequency tables can be found in Appendix D for all jurisdictions. Based on tax data, parcel and flood maps all or a portion of 263 known structures/properties valued at approximately $10.2 million and a population of 397 located in known floodplains.

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
1st Baptist Church Evac Center	Jefferson County	0	3500000	2024		Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Important, Special Consideration	5	0
Carver Elementary	Jefferson County	0	12750000	2024	510000	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	292	0
Choices Academy	Jefferson County	0	15250000	2024		Education, Education, K - 12, K - 12		250	
Hardeman Building (Swann)	Jefferson County	0	250000	2024	17000	Medical, Medical, EMS, EMS	Historic Consideration, Important, Special Consideration	1	0
JC Building Department	Jefferson County	0	51090	2024	17500	Government, Government, Water/Sewer, Water/Sewer	Important	3	
JC Radio Tower	Jefferson County	0	27885	2024	8000	Government, Government, Water/Sewer, Water/Sewer	Essential		
Jefferson County Library	Jefferson County	0	66085	2024	848000	Education, Education, Library, Library	Important	10	0

Jefferson County Chamber of Commerce/Murphy House	Jefferson County	0	361433	2024	122700	Law Enforcement, Law Enforcement, Jails, Jails	Historic Consideration, Important	8	0
Jefferson County Commissioners Office/Long House	Jefferson County	0	339300	2024	110300	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	30	0
Jefferson County Courthouse	Jefferson County	0	5147708	2024	125000	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Historic Consideration	25	
Jefferson County Leisure Center	Jefferson County	0	586170	2024	86000	Government, Government, Non-Profit, Non-Profit	Essential, Special Consideration, Vulnerable Population	75	0
Jefferson County Magistrate	Jefferson County	0	24001242	2024	8400	Law Enforcement, Law Enforcement, Court House, Court House	Essential	20	0
Jefferson County Middle School	Jefferson County	0				Education, K - 12		500	
Jefferson Hospital	Jefferson County	0	97000000	2024		Medical, Medical, Hospital, Hospital	Essential, Lifeline, Vulnerable Population	200	150

Louisville Academy Elementary	Jefferson County	0	15250000	2024	610000	NGO, NGO, Water/Sewer, Water/Sewer	Economic Assets, Essential, Vulnerable Population	568	0
Louisville EMS/Morgue	Jefferson County	0				Emergency Services, EMS		30	10
National Guard Equipment Shed 1	Jefferson County	0	292900	2024		Emergency Services, Emergency Services, EMA, EMA	Essential		
National Guard Equipment Shed 2	Jefferson County	0	338500	2024		Emergency Services, Emergency Services, EMA, EMA	Essential		
National Guard Garage (Road Dept)	Jefferson County	0	461800	2024	209000	Emergency Services, Emergency Services, EMA, EMA	Essential		
National Guard Shop	Jefferson County	0	470400	2024	470400	Emergency Services, Emergency Services, EMA, EMA	Essential		
Old County Jail/IT/Purchasing	Jefferson County	0	500000	2024	28000	Law Enforcement, Law Enforcement, Jails, Jails	Essential, Historic Consideration	1	0

Physicians Health Group Wrens	Jefferson County	0	1015350	2024	500000	Education, Education, Private, Private	Essential, Important	20	
Tax Commissioners Office	Jefferson County	0	825500	2024	323000	Government, Government, Government Offices, Government Offices	Essential	20	
Wrens Elementary	Jefferson County	0	20500000	2024	820000	NGO, NGO, Water/Sewer, Water/Sewer		637	0
Wrens Middle School (vacant)	Jefferson County	0	17000000	2024	680000	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	0	0
25		25	$ 215,985,363.00		$ 5,493,300.00			2695	160
Hillcrest Station	Jefferson County	1	45700	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
JC Fire TowerShop/Supply Building	Jefferson County	1	241236	2024	9800	Government, Government, Water/Sewer, Water/Sewer	Essential	4	
JC Recreation Dept	Jefferson County	1	1300621	2024	29600	Government, Government, Water/Sewer, Water/Sewer	Important	4	

Jefferson Co. Correction Facility	Jefferson County	1	5261231	2024	833800	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	200	200
Jefferson Co. Law Enforcement Center	Jefferson County	1	8041785	2024	1139700	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	225	225
Jefferson County Armory Transit EMA	Jefferson County	1	2380171	2024	724500	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	10	4
Jefferson County Bus Shop	Jefferson County	1	750000	2024	140000	Medical, Medical, Hospital, Hospital	Important	5	0
Jefferson County Health Dept	Jefferson County	1	841815	2024	191700	Education, Education, Private, Private	Essential	20	
Jefferson County High School	Jefferson County	1	55000000	2024	2200000	Medical, Medical, Hospital, Hospital	Economic Assets, Essential, Vulnerable Population	937	0
Jefferson County Landfill (New)	Jefferson County	1	1062166	2024	363200	NGO, NGO, Water/Sewer, Water/Sewer	Hazardous Materials, Important	6	
Jefferson County Office Park	Jefferson County	1	23500000	2024	940000	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	45	0

JEFFERSON CO-US 1 (AVERA RD) (SL)	Jefferson County	1	1500000	2024		Government, Government, Water/Sewer, Water/Sewer	Important		
Lions Club Evac. Center	Jefferson County	1	12000	2024		Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Historic Consideration	8	
Matthews Station	Jefferson County	1	47500	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Oconee Fall Line Technical College	Jefferson County	1	1930505	2024	7500	Education, Education, VoTech, VoTech	Economic Assets, Important, Vulnerable Population	75	75
Ogeechee Service Center	Jefferson County	1	900000	2024		Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	50	0
16		16	$ 102,814,730.00		$ 6,579,800.00			1589	504

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Avera City Hall	Avera city	1	312500	2024	200000	Government, Government, Private, Private	Essential	1	0
Avera Fire Station	Avera city	1	100000	2024	200000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Avera Water Tank	Avera city	1	325000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0
3		3	$ 737,500.00		$ 400,000.00			1	0

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Bartow Wastewater Lift Station #4	Bartow town	1	60500	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			60500		0			0	0
1									
Bartow City Hall	Bartow town	0	209300	2024	53500	Government, Government, Private, Private	Economic Assets, Essential, Important, Lifeline	3	1
Bartow Community Center & Auditorium	Bartow town	0	1342200	2024	250000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets	1	1
Bartow Fire Dept & Communications Bldg	Bartow town	0	17100	2024	60000	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline, Special Consideration	0	0
Bartow Fire Dept and Emergency Shelter	Bartow town	0	330630	2024	38500	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets, Essential, Important, Lifeline	1	1
Bartow Museum	Bartow town	0	826847	2024		Government, Government, Water/Sewer, Water/Sewer	Historic Consideration	1	0

Bartow wastewater Lift Station #1	Bartow town	0	70300	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Lift Station #2	Bartow town	0	71400	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Lift Station #3	Bartow town	0	69000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Lift Station #5	Bartow town	0	90200	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Sewage Effluent Pump Station	Bartow town	0	63700	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Wastewater Sewage Holding Pond	Bartow town	0	46400	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Bartow Wastewater Sewage Treatment Pond	Bartow town	0	50400	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Water Tower	Bartow town	0	393000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Water Well	Bartow town	0	111800	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow Water Well #2	Bartow town	0	119700	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
15		15	$ 3,811,977.00		$ 402,000.00			6	3

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Louisvill City Hall	Louisville city	0	550000	2024	350000	Government, Government, Private, Private	Essential	10	4
Louisville Fire Station	Louisville city	0	750000	2024	850000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	4	
Pumping Station (2nd Street)	Louisville city	0	0	2024		Emergency Services, Emergency Services, Water/Sewer, Water/Sewer	Essential		
Louisville WPCP	Louisville city	0	15000000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline	2	
City of Louisville Water Tank	Louisville city	0	500000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important		
Louisville Water Works	Louisville city	0	4425000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		

Highway 24 Lift Station	Louisville city	0	150000	2016		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
US # 1 Bypass Lift Station	Louisville city	0	150000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Market House	Louisville city	0	100000	2024		Government, Government, Water/Sewer, Water/Sewer	Historic Consideration, Special Consideration		
Physicians Health Group Louisville	Louisville city	0	2400000	2024	500000	Government, Government, Water/Sewer, Water/Sewer	Important	20	
American Renal Assoc NCA Dialysis Center	Louisville city	0	1261225	2024		Medical, Medical, Private, Private	Important, Vulnerable Population	10	
OCI Nursing Home	Louisville city	0	5000000	2024		Education, Education, Library, Library	Vulnerable Population	225	200
Grange Rd water Plant	Louisville city	0	5000000	2024		Government, Government, Water/Sewer, Water/Sewer			
Pumping Station (Jewel Lane)	Louisville city	0				Government, Water/Sewer			
14		14	$ 35,286,225.00		$ 1,700,000.00			271	204

Louisville City WaterTower	Louisville city	1	950000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Special Consideration		
Booster pump station	Louisville city	1	175000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville Lift Station at HS	Louisville city	1	150000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville Tech Lift Station	Louisville city	1	125000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville City Airport	Louisville city	1	543665	2024		NGO, NGO, Transportation, Transportation	Important, Transportation		
Louisville Water Tower	Louisville city	1	712500	2024		Government, Government, Water/Sewer, Water/Sewer			
6		6	$ 2,656,165.00						

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Stapleton City Hall & Emergency Shelter	Stapleton city	0	508109	2024	74000	Government, Government, Private, Private	Essential	2	
Stapleton Fire house & Emergency Shelter	Stapleton city	0	509327	2024	700000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Important, Lifeline		
Stapleton Water Tank #1	Stapleton city	0	771603	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Stapleton Water Tank #2	Stapleton city	0	795253	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		
4		4	$ 2,584,292.00		$ 774,000.00			2	

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Daytime Occupancy	Nighttime Occupancy
Glendale Nursing Home	Wadley city	0	1610863	2024	750000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Important, Special Consideration, Vulnerable Population	120	90
Physicans Health Group Wadley	Wadley city	0	405650	2024	250000	Education, Education, Private, Private	Important	10	
Wadley City Hall	Wadley city	0	1500000	2024	250000	Government, Government, Private, Private	Economic Assets, Essential	5	0
Wadley Community Complex	Wadley city	0	800000	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Historic Consideration, Important		
Wadley Elevated Water Tank	Wadley city	0	650000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wadley Fire Station	Wadley city	0	300000	2024	500000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential		

Wadley Gym	Wadley city	0	400000	2024		Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Historic Consideration, Important		
Wadley Lift Station #1	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #2	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #3	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #4	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley Lift Station #5	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer			
Wadley Lift Station #6	Wadley city	0	20690	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		

Wadley Police Department	Wadley city	0	900000	2024	200000	Law Enforcement, Law Enforcement, Police, Police	Essential	6	2
Wadley Public Library	Wadley city	0	510000	2024	538200	Education, Education, Library, Library	Economic Assets, Important	5	5
Wadley Water Tower #2	Wadley city	0	500000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	
Wadley Well House	Wadley city	0	600000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
17		17	$ 8,300,653.00		$ 2,488,200.00			146	97

Name	Jurisdiction	Hazard Score	Replacement Value	Valuation Year	Content value	Facility type	Risk	Day Occupancy	Night Occupancy
Bushy Creek Lift Station	Wrens city	0	400000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
City of Wrens Airport	Wrens city	0	504388	2024		Emergency Services, Emergency Services, EMA, EMA	Essential		
City of Wrens Wastewater Treatment Plant	Wrens city	0	180307	2024		Government, Government, Water/Sewer, Water/Sewer	Essential		
Family Y/ City of Wrens Recreation	Wrens city	0	2080755	2024		Education, Education, K - 12, K - 12	Vulnerable Population		
Gold Cross and Food Bank Development Center	Wrens city	0	96907	2024		Emergency Services, Emergency Services, EMS, EMS	Economic Assets		
Water Booster Station	Wrens city	0	500000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens City Hall	Wrens city	0	1125000	2024	150000	Government, Government, Private, Private	Economic Assets, Essential	10	

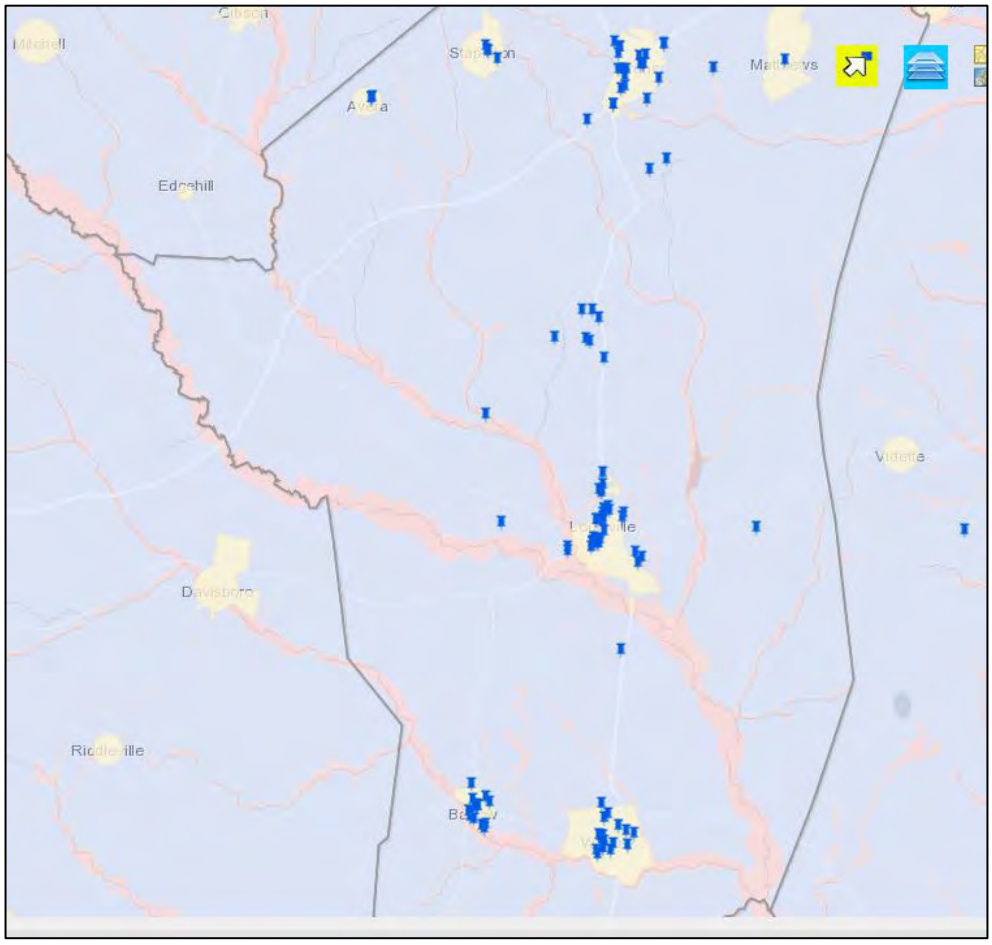
Wrens Community Center	Wrens city	0	500000	2024	50000	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets	20	
Wrens Medical Center	Wrens city	0	875000	2024	200000	Government, Government, Water/Sewer, Water/Sewer	Important, Vulnerable Population	20	
Wrens Old Library Building	Wrens city	0	625000	2024	549200	Education, Education, Library, Library	Economic Assets, Historic Consideration, Important		
Wrens Water Pumping Station	Wrens city	0	300000	2024	50000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Pumping Station	Wrens city	0	75000	2024	25000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Tank	Wrens city	0	625000	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Tank	Wrens city	0	625000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Wrens Water Tank	Wrens city	0	625000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
15		15	$ 9,137,357.00		$ 1,024,200.00			50	
Border Regulator Station	Wrens city	1	100000	2024		Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Lifeline		
Calcine Meter Set	Wrens city	1	225000	2024		Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Highway 88 Lift Station	Wrens city	1	350000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
IMERYS Meter Set	Wrens city	1	300000	2024		Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials		

KA-MIN #1	Wrens city	1	250000	2024		Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Important, Lifeline		
Ka-Min #2	Wrens city	1	250000	2024		Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials, Lifeline		
King Mill Well (Well E)	Wrens city	1	750000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Southern Tap #1	Wrens city	1	750000	2024	2024	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Southern Tap #2	Wrens city	1	750000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline		
Stephens St Lift Station	Wrens city	1	350000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

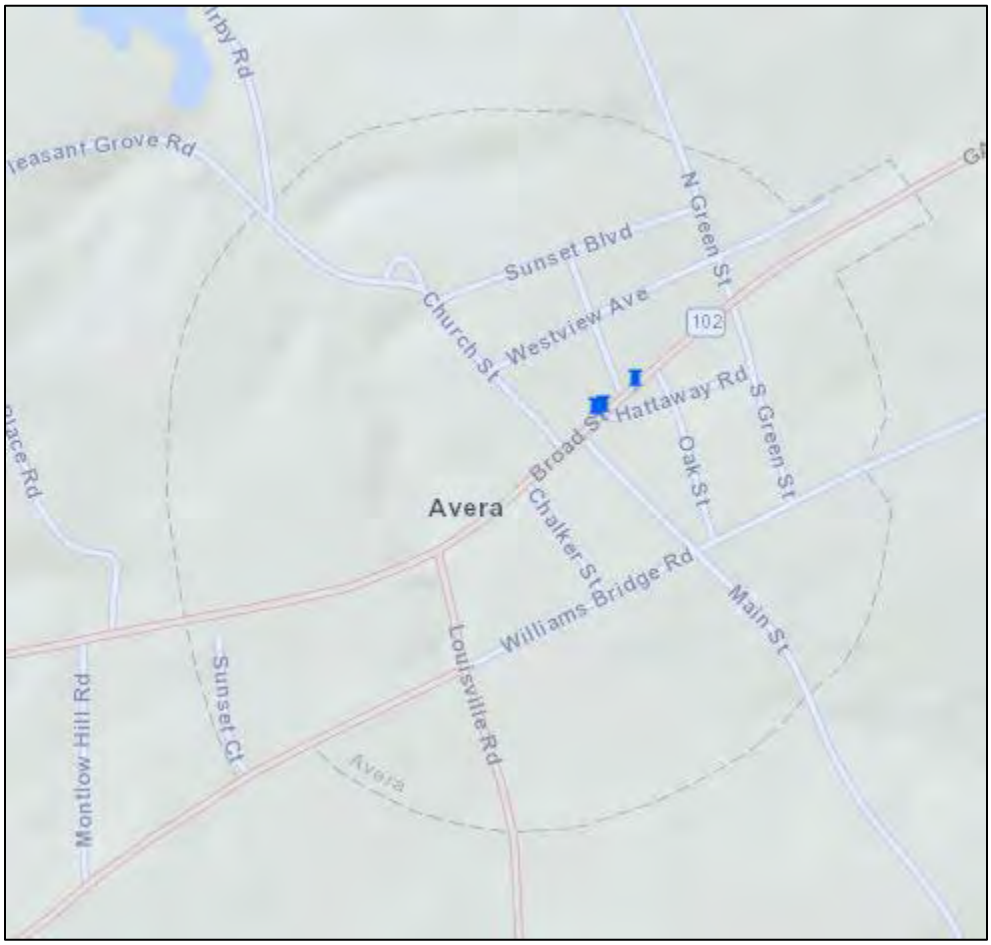
Waynesboro Highway Lift Station	Wrens city	1	400000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens Water Pumping Station	Wrens city	1	125000	2024	25000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens Water Tank	Wrens city	1	687500	2024		Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
13		13	$ 5,287,500.00		$ 27,024.00				
West Walker St Lift Station	Wrens city	3	300000	2024		Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens Sewage Treatment Plant	Wrens city	3	3250000	2024	125000	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Hazardous Materials		
2		2	$ 3,550,000.00						

Jefferson County Flood Plains Georgia Mitigation Information System



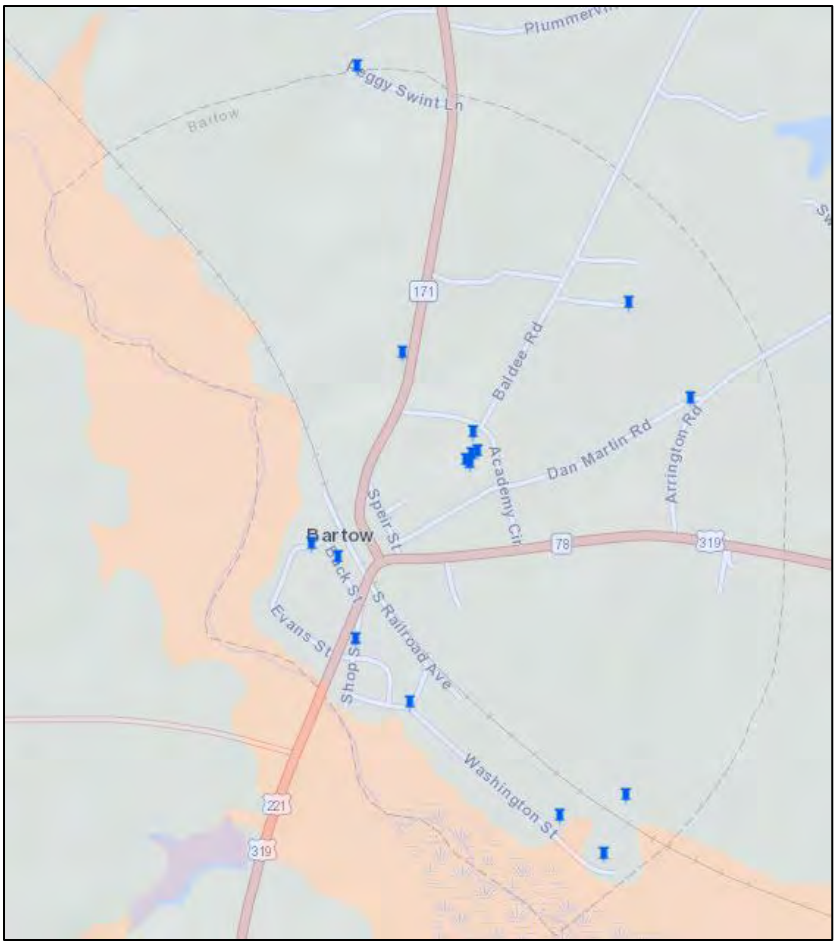
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Avera Flood Plains Georgia Mitigation Information System



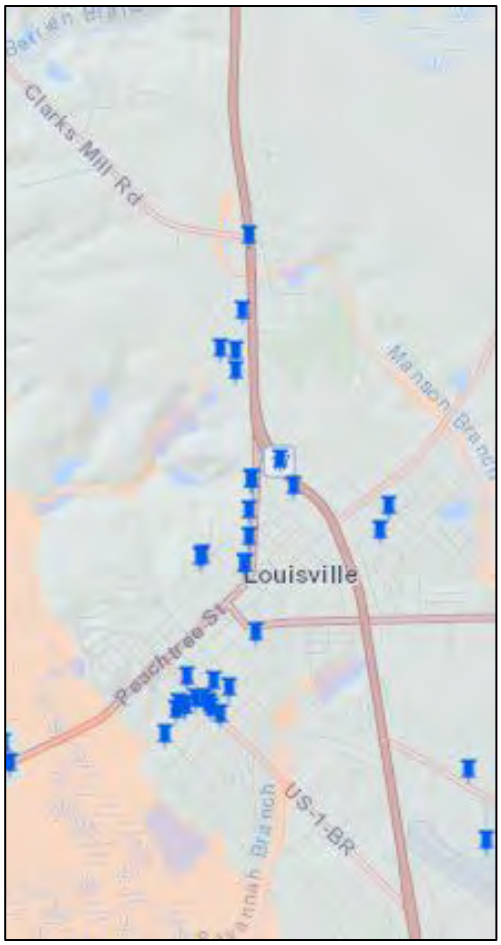
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Bartow Flood Plains Georgia Mitigation Information System



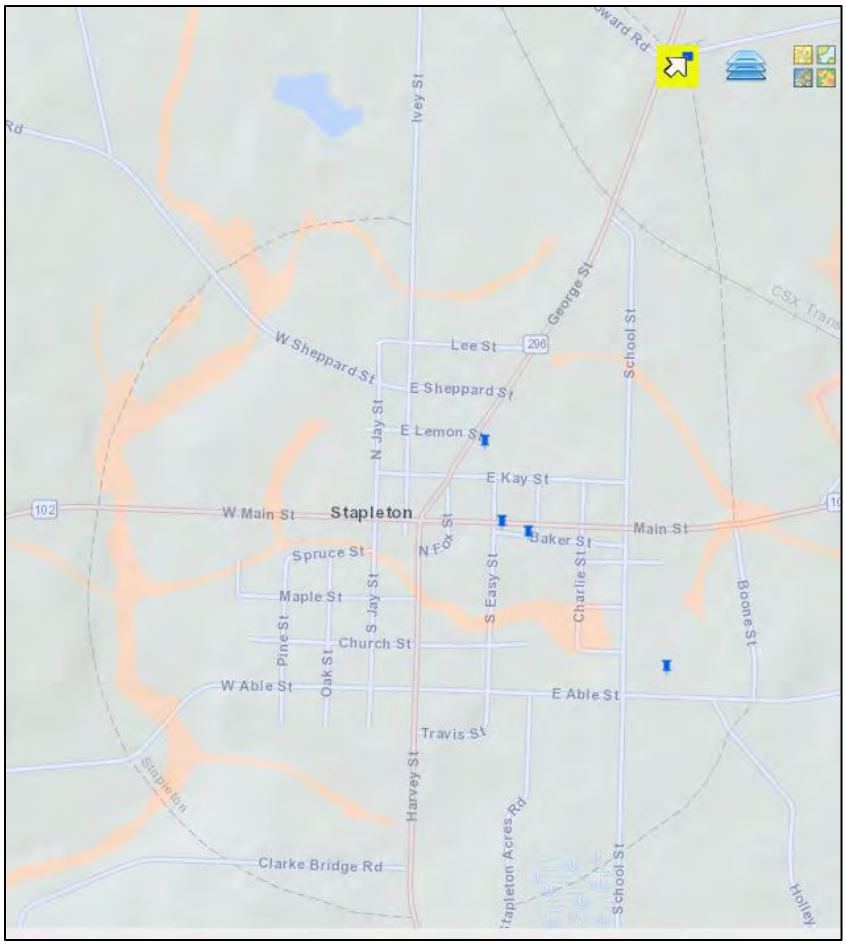
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Louisville Flood Plains Georgia Mitigation Information System



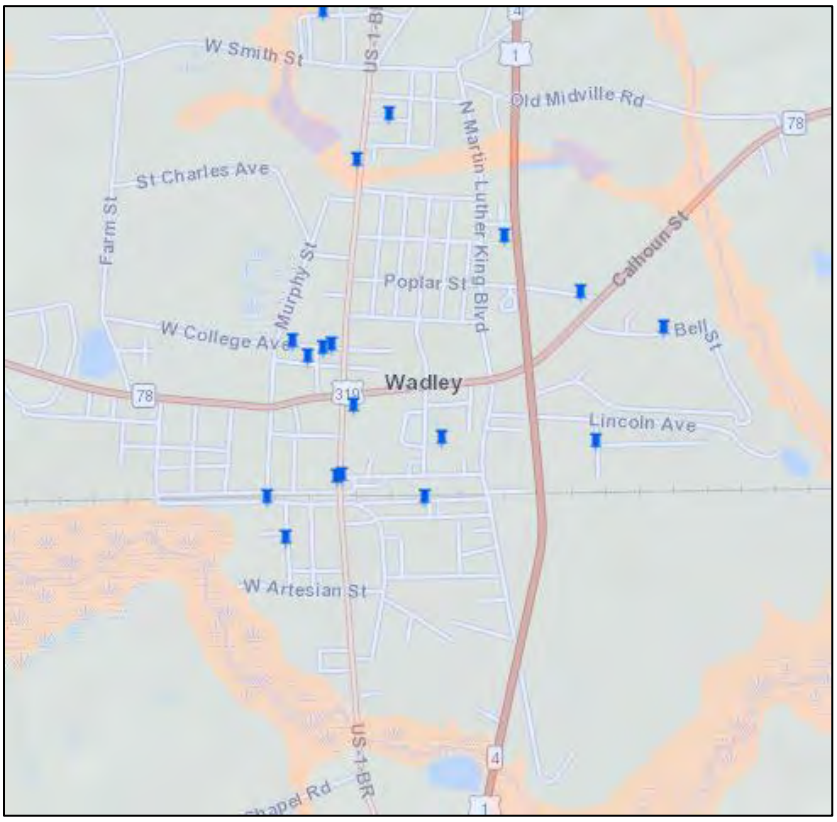
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Stapleton Flood Plains Georgia Mitigation Information System



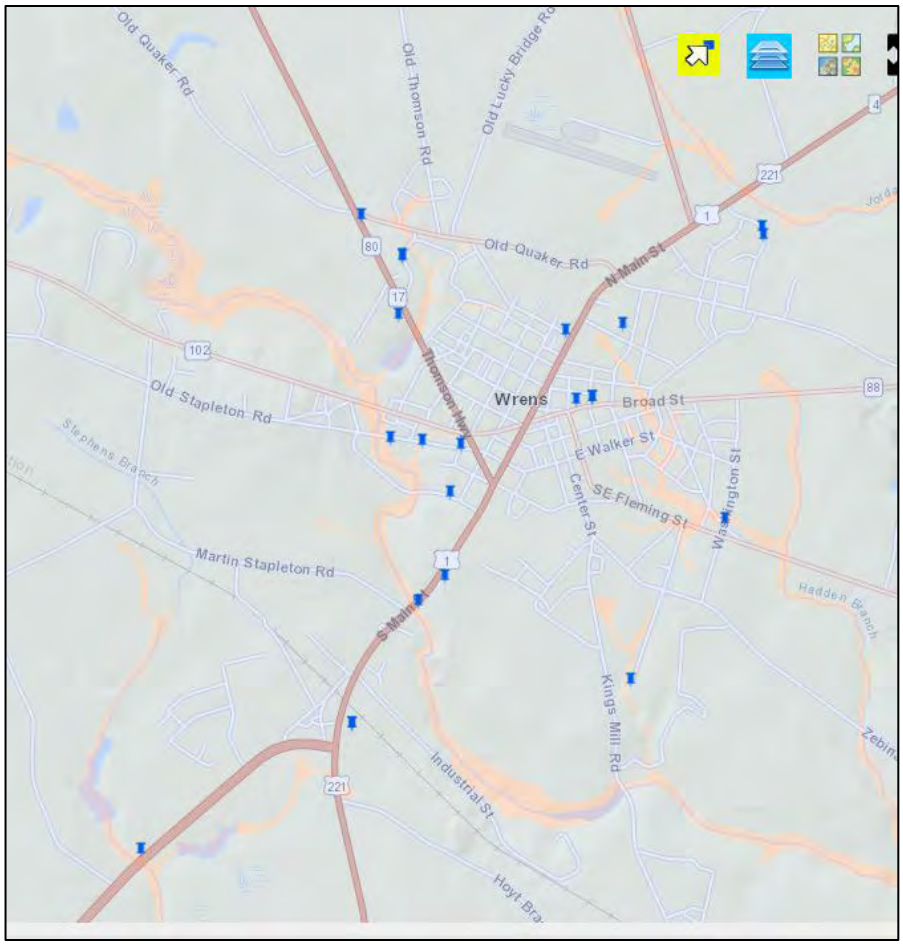
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood 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

Wadley Flood Plains Georgia Mitigation Information System



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

Wrens Flood Plains Georgia Mitigation Information System



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

Dam Failures

Dam failures and incidents involve unintended release or surges of impounded water. They can destroy property and cause injury and death downstream. While they may involve the total collapse of a dam, that is not always the case. Damaged spillways, overtopping of a dam or other problems may result in a hazardous situation. Dam failures may be caused by structural deficiencies in the dam itself. Dam failures may also come from other factors including but not limited to debris blocking spillways, flooding, earthquakes, improper operation and vandalism. Dam failures are potentially the worst flood events. When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path and posing a threat to life and property.

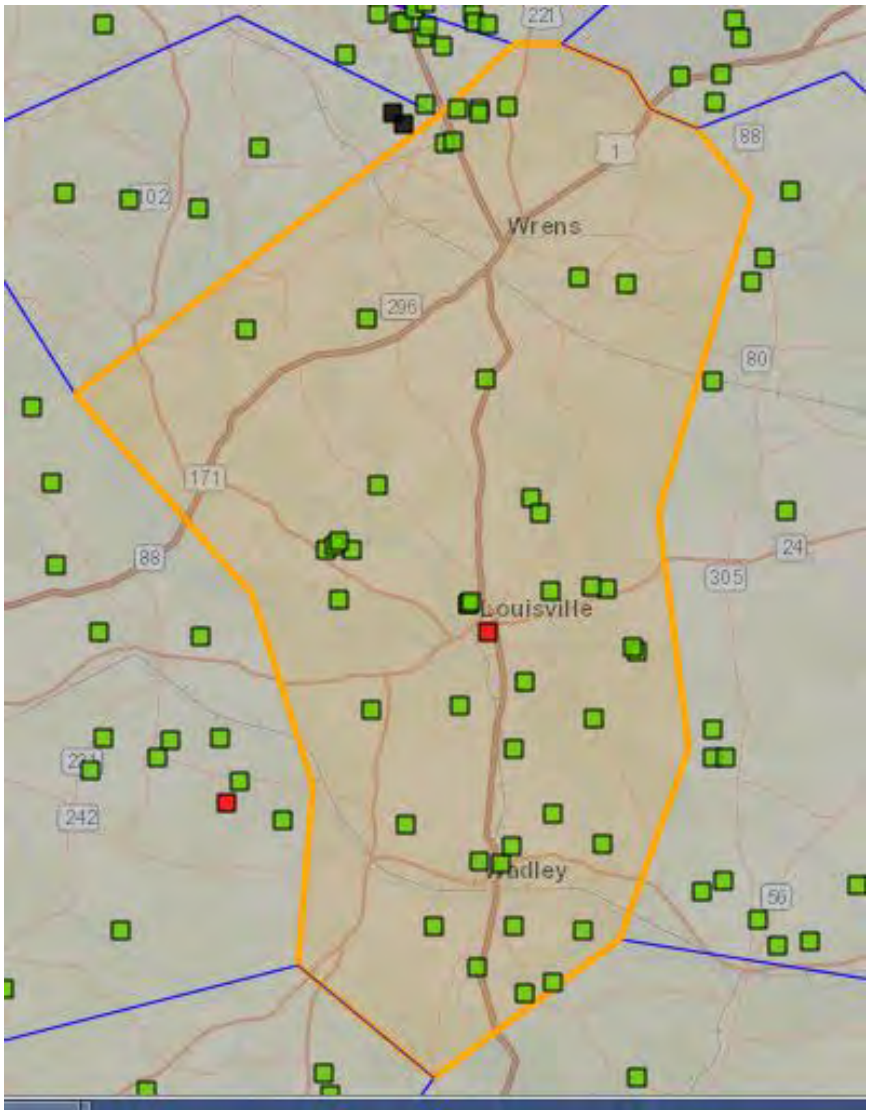
Dams are classified into three categories:
• High Hazard – Dams where failure or disoperation will probably cause loss of human life.
• Significant Hazard – Dams where failure or disoperation will probably not result in loss of life, but can cause economic loss, environmental damage, and disruption of lifeline facilities or other concerns.
• Low Hazard – Dams where failure or disoperation will probably not result in loss of life and cause only low economic and/or environmental loss.

A review of the National Inventory of Dams shows that Jefferson County has 42 dams with 41 classified as low hazard and 1 classified as high hazard. A high hazard classification is based upon the finding that a probable loss of life would occur in the event of a dam failure. If the 1 high hazard dam fails there is the potential for loss of life and property and economic losses. The remaining 41 dams are low hazard were potential losses are limited to minimal property damage. The potential losses due to dam failure flooding are unknown and cannot be estimated at this time. The County has population of 16,930 and 37,363 structures/properties valued at slightly less than $1.3 billion at risk of potential loss. (See Appendix A Section II and Appendix D).

National Inventory of Dams - Jefferson County, GA						
Dam Name	NID ID	State Regulated Dam	Federally Regulated Dam	Federal Agency Involvement Regulatory	Hazard Potential Classification	EAP Prepared
Georgia Kaolin Reject Pond Dam	GA04666	No	No		Low	Not Required
E.C.C.I West Settling Pond	GA04374	No	No		Low	Not Required
Lake Marian Dam	GA03259	Yes	No		High	Yes
Cunningham Corner Irrigation Pond Dam	GA02665	No	No		Low	Not Required
Kelly's Pond Dam	GA04660	No	No		Low	Not Required
Clarks Millpond Dam	GA04659	No	No		Low	Not Required
Gambrel Irrigation Pond Dam	GA04624	No	No		Low	Not Required
Smith Farms Irrigation Pond Dam	GA03034	No	No		Low	Not Required
Newberry Irrigation Pond Dam # 2	GA04669	No	No		Low	Not Required
Pilcher Lake Dam	GA00191	No	No		Low	Not Required
Lost Lake Dam	GA02662	No	No		Low	Not Required
Huber Wrens Plant Wastewater Pond Dam	GA04662	No	No		Low	Not Required
Cobb Irrigation Pond Dam	GA03030	No	No		Low	Not Required
Mcneely - Hannah Lake Dam	GA02660	No	No		Low	Not Required
Redfield Farms, INC. New Irrigation Pond Dam	GA04668	No	No		Low	Not Required
Newberry Irrigation Pond Dam # 1	GA03026	No	No		Low	Not Required
Weeks Lake Dam	GA02661	No	No		Low	Not Required
Union Camp Lake Dam (Upper)	GA03364	No	No		Low	Not Required
Stapleton Millpond Dam	GA00190	No	No		Low	Not Required
Radcliffe Farms Lake Dam # 02	GA04671	No	No		Low	Not Required
Lake Rabun Dam	GA03258	No	No		Low	Not Required
Redfield Farms, INC. Irrigation Pond Dam	GA04665	No	No		Low	Not Required
Pennington Irrigation Lake Dam	GA03032	No	No		Low	Not Required
Pennington Tailings Pond Dam	GA04670	No	No		Low	Not Required
Adams Lake Dam	GA03035	No	No		Low	Not Required
Hancock Pond Dam	GA03033	No	No		Low	Not Required
Rocky Comfort, INC. Irrigation Dam	GA04663	No	No		Low	Not Required

National Inventory of Dams - Jefferson County, GA						
Dam Name	NID ID	State Regulated Dam	Federally Regulated Dam	Federal Agency Involvement Regulatory	Hazard Potential Classification	EAP Prepared
Proposed J. M Huber Holley Impoundment	GA05782	No	No		Low	Not Required
Rachels Millpond Dam	GA03260	No	No		Low	Not Required
Brett Pond Dam	GA03031	No	No		Low	Not Required
Evans Lake Dam	GA00185	No	No		Low	Not Required
Smith Pond Dam	GA04664	No	No		Low	Not Required
Radcliffe Farm Lake Dam # 03	GA04667	No	No		Low	Not Required
Union Camp Lake Dam (Lower)	GA04656	No	No		Low	Not Required
Radcliffe Farms Lake Dam # 01	GA04672	No	No		Low	Not Required
Hadden Pond Dam	GA03024	No	No		Low	Not Required
Wommack Lake Dam	GA02659	No	No		Low	Not Required
Davis Lake Dam (Lower)	GA02663	No	No		Low	Not Required
Henderson Lake Dam	GA00184	No	No		Low	Not Required
Davis Lake Dam (Upper)	GA04657	No	No		Low	Not Required
Mcdonalds Lake Dam	GA04658	No	No		Low	Not Required
Battle Lake Dam	GA03028	No	No		Low	Not Required

Jefferson County Dam Map



Hazard Potential Type

- High
- Significant
- Low
- Undetermined
- Not Available

Drought

Drought is not spatially defined and has the potential to affect the entire planning area equally. Jefferson County has a total area of 339,200 acres of which 151,521 acres dedicated to agricultural. According to the USDA 2022 Census of Agriculture 13,373 head of livestock. Agricultural losses due to drought have been the primary losses. No critical facilities have sustained any damage or functional downtime due to dry weather conditions. The last drought event in Jefferson County ran from August 2016 to January 2017.

There have been 25 drought events in the county in the last 69 years with estimated crop losses at $6.6 million. According to the USDA Farm Subsidies Database, from 1995-2023, Jefferson County received a total of $125.95 million in farm subsidy payments of which an $13 million was for disaster assistance. Historical data is only for the county as a whole. Based on a 20-year cycle hazard history along with available data there is a 91.67% chance of an annual drought event in Jefferson County. In addition to an increased threat of wildfires, drought can affect municipal and industrial water supplies, stream-water quality, water recreation facilities, hydropower generation, as well as agricultural and forest resources.

In summary, for Jefferson County as a whole, there are a total of 7,690 agricultural/forestry properties in Jefferson County valued at more than $467 million with a population of 622 and includes 13,373 head of livestock that are at the greatest risk due to a drought event. There is a population of 16,930 and approximately 40,626 structures/properties in the county with a value just slightly less than $1.3 billion which could be affected if wildfires break out as a result of drought conditions.

Jefferson County U. S. Drought Moitor Data

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
1/4/2000	0	100	100	0.63	0	0	201
1/11/2000	0	100	100	0	0	0	200
1/18/2000	0	100	100	0	0	0	200
1/25/2000	0	100	100	0	0	0	200
2/1/2000	0	100	100	0	0	0	200
2/8/2000	0	100	100	0	0	0	200
2/15/2000	0	100	100	0	0	0	200
2/22/2000	0	100	100	0	0	0	200
2/29/2000	0	100	100	0	0	0	200
3/7/2000	0	100	100	0	0	0	200
3/14/2000	0	100	100	0	0	0	200
3/21/2000	0	100	100	0	0	0	200
3/28/2000	0	100	100	0	0	0	200
4/4/2000	0	100	100	0	0	0	200
4/11/2000	0	100	100	0	0	0	200
4/18/2000	0	100	100	54.99	0	0	255
4/25/2000	0	100	100	0.06	0	0	200
5/2/2000	0	100	100	0.06	0	0	200
5/9/2000	0	100	100	0.02	0	0	200
5/16/2000	0	100	100	100	0	0	300
5/23/2000	0	100	100	100	0	0	300
5/30/2000	0	100	100	100	100	0	400
6/6/2000	0	100	100	100	100	0	400
6/13/2000	0	100	100	100	100	100	500
6/20/2000	0	100	100	100	100	98.57	499
6/27/2000	0	100	100	100	100	100	500
7/4/2000	0	100	100	100	100	100	500
7/11/2000	0	100	100	100	100	100	500
7/18/2000	0	100	100	100	100	43.71	444
7/25/2000	0	100	100	100	100	38.18	438
8/1/2000	0	100	100	100	100	19.3	419
8/8/2000	0	100	100	100	100	0	400
8/15/2000	0	100	100	100	100	0	400
8/22/2000	0	100	100	100	100	0	400
8/29/2000	0	100	100	100	100	0	400
9/5/2000	0	100	100	100	90.8	0	391
9/12/2000	0	100	100	100	90.79	0	391
9/19/2000	0	100	100	100	90.8	0	391
9/26/2000	0	100	100	29.48	0	0	229
10/3/2000	0	100	100	30.18	0	0	230
10/10/2000	0	100	100	30.18	0	0	230
10/17/2000	0	100	100	97.2	0	0	297

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/24/2000	0	100	100	100	0	0	300
10/31/2000	0	100	100	100	0	0	300
11/7/2000	0	100	100	100	0	0	300
11/14/2000	0	100	100	100	0	0	300
11/21/2000	0	100	100	100	0	0	300
11/28/2000	0	100	100	99.99	0	0	300
12/5/2000	0	100	100	100	0	0	300
12/12/2000	0	100	100	100	0	0	300
12/19/2000	0	100	100	0	0	0	200
12/26/2000	0	100	100	0	0	0	200
1/2/2001	0	100	100	0	0	0	200
1/9/2001	0	100	100	0	0	0	200
1/16/2001	0	100	100	0	0	0	200
1/23/2001	0	100	100	0	0	0	200
1/30/2001	0	100	100	0	0	0	200
2/6/2001	0	100	100	0	0	0	200
2/13/2001	0	100	100	0	0	0	200
2/20/2001	0	100	100	0	0	0	200
2/27/2001	0	100	100	0	0	0	200
3/6/2001	0	100	100	0	0	0	200
3/13/2001	0	100	100	0	0	0	200
3/20/2001	0	100	100	0	0	0	200
3/27/2001	0	100	100	0	0	0	200
4/3/2001	0	100	100	0	0	0	200
4/10/2001	0	100	100	0	0	0	200
4/17/2001	0	100	100	0	0	0	200
4/24/2001	0	100	100	0	0	0	200
5/1/2001	0	100	100	0	0	0	200
5/8/2001	0	100	100	0	0	0	200
5/15/2001	0	100	100	100	0	0	300
5/22/2001	0	100	100	100	0	0	300
5/29/2001	0	100	100	100	0	0	300
6/5/2001	0	100	100	100	0	0	300
6/12/2001	0	100	100	100	0	0	300
6/19/2001	0	100	0	0	0	0	100
6/26/2001	0	100	0	0	0	0	100
7/3/2001	0	100	0	0	0	0	100
7/10/2001	16.69	83.31	0	0	0	0	83
7/17/2001	16.69	83.31	0	0	0	0	83
7/24/2001	9.51	90.49	0	0	0	0	90
7/31/2001	13.61	86.39	0	0	0	0	86
8/7/2001	51.45	48.55	0	0	0	0	49
8/14/2001	86.03	13.97	0	0	0	0	14

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/21/2001	93.57	6.43	0	0	0	0	6
8/28/2001	95.28	4.72	0	0	0	0	5
9/4/2001	94.48	5.52	0	0	0	0	6
9/11/2001	94.48	5.52	0	0	0	0	6
9/18/2001	0	100	0	0	0	0	100
9/25/2001	0	100	0	0	0	0	100
10/2/2001	0	100	54.2	0	0	0	154
10/9/2001	0	100	56.92	0	0	0	157
10/16/2001	0	100	58.5	0	0	0	159
10/23/2001	0	100	100	0	0	0	200
10/30/2001	0	100	100	100	0	0	300
11/6/2001	0	100	100	100	0	0	300
11/13/2001	0	100	100	100	0	0	300
11/20/2001	0	100	100	100	0	0	300
11/27/2001	0	100	100	100	0	0	300
12/4/2001	0	100	100	100	0	0	300
12/11/2001	0	100	100	100	0	0	300
12/18/2001	0	100	100	100	0	0	300
12/25/2001	0	100	100	100	0	0	300
1/1/2002	0	100	100	100	26.23	0	326
1/8/2002	0	100	100	100	8.4	0	308
1/15/2002	0	100	100	100	0	0	300
1/22/2002	0	100	100	100	0	0	300
1/29/2002	0	100	100	100	0	0	300
2/5/2002	0	100	100	100	100	0	400
2/12/2002	0	100	100	100	100	0	400
2/19/2002	0	100	100	100	100	0	400
2/26/2002	0	100	100	100	100	0	400
3/5/2002	0	100	100	100	100	0	400
3/12/2002	0	100	100	100	100	0	400
3/19/2002	0	100	100	100	100	0	400
3/26/2002	0	100	100	100	100	0	400
4/2/2002	0	100	100	100	42.26	0	342
4/9/2002	0	100	100	100	47.94	0	348
4/16/2002	0	100	100	100	0	0	300
4/23/2002	0	100	100	100	0	0	300
4/30/2002	0	100	100	100	89.14	0	389
5/7/2002	0	100	100	100	100	0	400
5/14/2002	0	100	100	100	100	0	400
5/21/2002	0	100	100	100	100	0	400
5/28/2002	0	100	100	100	97.9	0	398
6/4/2002	0	100	100	100	92.78	0	393
6/11/2002	0	100	100	100	87.88	0	388

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
6/18/2002	0	100	100	100	100	0	400
6/25/2002	0	100	100	100	100	0	400
7/2/2002	0	100	100	100	100	0	400
7/9/2002	0	100	100	100	100	0	400
7/16/2002	0	100	100	100	100	0	400
7/23/2002	0	100	100	100	100	0	400
7/30/2002	0	100	100	100	100	0	400
8/6/2002	0	100	100	100	100	0	400
8/13/2002	0	100	100	100	100	100	500
8/20/2002	0	100	100	100	100	100	500
8/27/2002	0	100	100	100	100	100	500
9/3/2002	0	100	100	100	100	89.68	490
9/10/2002	0	100	100	100	100	46.75	447
9/17/2002	0	100	100	100	87.25	0	387
9/24/2002	0	100	100	100	0	0	300
10/1/2002	0	100	100	100	0	0	300
10/8/2002	0	100	100	100	0	0	300
10/15/2002	0	100	100	100	0	0	300
10/22/2002	0	100	100	100	0	0	300
10/29/2002	0	100	100	100	0	0	300
11/5/2002	0	100	100	100	0	0	300
11/12/2002	0	100	100	0	0	0	200
11/19/2002	0	100	100	0	0	0	200
11/26/2002	0	100	100	0	0	0	200
12/3/2002	0	100	100	0	0	0	200
12/10/2002	0	100	100	0	0	0	200
12/17/2002	0	100	0	0	0	0	100
12/24/2002	0	100	0	0	0	0	100
12/31/2002	14.38	85.62	0	0	0	0	86
1/7/2003	3.78	96.22	0	0	0	0	96
1/14/2003	8.22	91.78	0	0	0	0	92
1/21/2003	3.56	96.44	0	0	0	0	96
1/28/2003	4.56	95.44	0	0	0	0	95
2/4/2003	0	100	0	0	0	0	100
2/11/2003	0	100	0	0	0	0	100
2/18/2003	0	100	0	0	0	0	100
2/25/2003	0	100	0	0	0	0	100
3/4/2003	0	100	0	0	0	0	100
3/11/2003	0	100	0	0	0	0	100
3/18/2003	0	100	0	0	0	0	100
3/25/2003	100	0	0	0	0	0	0
4/1/2003	100	0	0	0	0	0	0
4/8/2003	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
4/15/2003	100	0	0	0	0	0	0
4/22/2003	100	0	0	0	0	0	0
4/29/2003	100	0	0	0	0	0	0
5/6/2003	100	0	0	0	0	0	0
5/13/2003	100	0	0	0	0	0	0
5/20/2003	100	0	0	0	0	0	0
5/27/2003	100	0	0	0	0	0	0
6/3/2003	100	0	0	0	0	0	0
6/10/2003	100	0	0	0	0	0	0
6/17/2003	100	0	0	0	0	0	0
6/24/2003	100	0	0	0	0	0	0
7/1/2003	100	0	0	0	0	0	0
7/8/2003	100	0	0	0	0	0	0
7/15/2003	100	0	0	0	0	0	0
7/22/2003	100	0	0	0	0	0	0
7/29/2003	100	0	0	0	0	0	0
8/5/2003	100	0	0	0	0	0	0
8/12/2003	100	0	0	0	0	0	0
8/19/2003	100	0	0	0	0	0	0
8/26/2003	100	0	0	0	0	0	0
9/2/2003	100	0	0	0	0	0	0
9/9/2003	100	0	0	0	0	0	0
9/16/2003	100	0	0	0	0	0	0
9/23/2003	100	0	0	0	0	0	0
9/30/2003	100	0	0	0	0	0	0
10/7/2003	100	0	0	0	0	0	0
10/14/2003	100	0	0	0	0	0	0
10/21/2003	100	0	0	0	0	0	0
10/28/2003	100	0	0	0	0	0	0
11/4/2003	100	0	0	0	0	0	0
11/11/2003	100	0	0	0	0	0	0
11/18/2003	100	0	0	0	0	0	0
11/25/2003	100	0	0	0	0	0	0
12/2/2003	100	0	0	0	0	0	0
12/9/2003	100	0	0	0	0	0	0
12/16/2003	100	0	0	0	0	0	0
12/23/2003	100	0	0	0	0	0	0
12/30/2003	100	0	0	0	0	0	0
1/6/2004	100	0	0	0	0	0	0
1/13/2004	100	0	0	0	0	0	0
1/20/2004	100	0	0	0	0	0	0
1/27/2004	100	0	0	0	0	0	0
2/3/2004	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
2/10/2004	100	0	0	0	0	0	0
2/17/2004	100	0	0	0	0	0	0
2/24/2004	100	0	0	0	0	0	0
3/2/2004	100	0	0	0	0	0	0
3/9/2004	100	0	0	0	0	0	0
3/16/2004	100	0	0	0	0	0	0
3/23/2004	0	100	0	0	0	0	100
3/30/2004	0	100	0	0	0	0	100
4/6/2004	0	100	0	0	0	0	100
4/13/2004	0	100	0	0	0	0	100
4/20/2004	0	100	52.01	0	0	0	152
4/27/2004	0	100	100	0	0	0	200
5/4/2004	0	100	100	0	0	0	200
5/11/2004	0	100	100	0	0	0	200
5/18/2004	0	100	100	0	0	0	200
5/25/2004	0	100	100	100	0	0	300
6/1/2004	0	100	100	100	0	0	300
6/8/2004	0	100	100	100	0	0	300
6/15/2004	0	100	100	100	0	0	300
6/22/2004	0	100	100	0.2	0	0	200
6/29/2004	0	100	0.09	0	0	0	100
7/6/2004	0	100	0	0	0	0	100
7/13/2004	0	100	0	0	0	0	100
7/20/2004	0	100	0	0	0	0	100
7/27/2004	0	100	0	0	0	0	100
8/3/2004	0	100	0	0	0	0	100
8/10/2004	0	100	0	0	0	0	100
8/17/2004	13.13	86.87	0	0	0	0	87
8/24/2004	1.1	98.9	0	0	0	0	99
8/31/2004	6.47	93.53	0	0	0	0	94
9/7/2004	100	0	0	0	0	0	0
9/14/2004	100	0	0	0	0	0	0
9/21/2004	100	0	0	0	0	0	0
9/28/2004	100	0	0	0	0	0	0
10/5/2004	100	0	0	0	0	0	0
10/12/2004	100	0	0	0	0	0	0
10/19/2004	100	0	0	0	0	0	0
10/26/2004	100	0	0	0	0	0	0
11/2/2004	100	0	0	0	0	0	0
11/9/2004	100	0	0	0	0	0	0
11/16/2004	100	0	0	0	0	0	0
11/23/2004	100	0	0	0	0	0	0
11/30/2004	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
12/7/2004	100	0	0	0	0	0	0
12/14/2004	100	0	0	0	0	0	0
12/21/2004	100	0	0	0	0	0	0
12/28/2004	100	0	0	0	0	0	0
1/4/2005	100	0	0	0	0	0	0
1/11/2005	100	0	0	0	0	0	0
1/18/2005	100	0	0	0	0	0	0
1/25/2005	100	0	0	0	0	0	0
2/1/2005	100	0	0	0	0	0	0
2/8/2005	100	0	0	0	0	0	0
2/15/2005	100	0	0	0	0	0	0
2/22/2005	100	0	0	0	0	0	0
3/1/2005	100	0	0	0	0	0	0
3/8/2005	100	0	0	0	0	0	0
3/15/2005	100	0	0	0	0	0	0
3/22/2005	100	0	0	0	0	0	0
3/29/2005	100	0	0	0	0	0	0
4/5/2005	100	0	0	0	0	0	0
4/12/2005	100	0	0	0	0	0	0
4/19/2005	100	0	0	0	0	0	0
4/26/2005	100	0	0	0	0	0	0
5/3/2005	100	0	0	0	0	0	0
5/10/2005	100	0	0	0	0	0	0
5/17/2005	100	0	0	0	0	0	0
5/24/2005	100	0	0	0	0	0	0
5/31/2005	100	0	0	0	0	0	0
6/7/2005	100	0	0	0	0	0	0
6/14/2005	100	0	0	0	0	0	0
6/21/2005	100	0	0	0	0	0	0
6/28/2005	100	0	0	0	0	0	0
7/5/2005	100	0	0	0	0	0	0
7/12/2005	100	0	0	0	0	0	0
7/19/2005	100	0	0	0	0	0	0
7/26/2005	100	0	0	0	0	0	0
8/2/2005	100	0	0	0	0	0	0
8/9/2005	100	0	0	0	0	0	0
8/16/2005	100	0	0	0	0	0	0
8/23/2005	100	0	0	0	0	0	0
8/30/2005	100	0	0	0	0	0	0
9/6/2005	100	0	0	0	0	0	0
9/13/2005	100	0	0	0	0	0	0
9/20/2005	100	0	0	0	0	0	0
9/27/2005	34.75	65.25	0	0	0	0	65

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/4/2005	100	0	0	0	0	0	0
10/11/2005	100	0	0	0	0	0	0
10/18/2005	100	0	0	0	0	0	0
10/25/2005	100	0	0	0	0	0	0
11/1/2005	100	0	0	0	0	0	0
11/8/2005	100	0	0	0	0	0	0
11/15/2005	100	0	0	0	0	0	0
11/22/2005	100	0	0	0	0	0	0
11/29/2005	100	0	0	0	0	0	0
12/6/2005	100	0	0	0	0	0	0
12/13/2005	100	0	0	0	0	0	0
12/20/2005	100	0	0	0	0	0	0
12/27/2005	100	0	0	0	0	0	0
1/3/2006	100	0	0	0	0	0	0
1/10/2006	100	0	0	0	0	0	0
1/17/2006	100	0	0	0	0	0	0
1/24/2006	100	0	0	0	0	0	0
1/31/2006	100	0	0	0	0	0	0
2/7/2006	100	0	0	0	0	0	0
2/14/2006	100	0	0	0	0	0	0
2/21/2006	100	0	0	0	0	0	0
2/28/2006	100	0	0	0	0	0	0
3/7/2006	100	0	0	0	0	0	0
3/14/2006	100	0	0	0	0	0	0
3/21/2006	100	0	0	0	0	0	0
3/28/2006	100	0	0	0	0	0	0
4/4/2006	0	100	0	0	0	0	100
4/11/2006	0	100	0	0	0	0	100
4/18/2006	0	100	0	0	0	0	100
4/25/2006	0	100	0	0	0	0	100
5/2/2006	0	100	0	0	0	0	100
5/9/2006	0	100	0	0	0	0	100
5/16/2006	0	100	0	0	0	0	100
5/23/2006	0	100	0	0	0	0	100
5/30/2006	0	100	0	0	0	0	100
6/6/2006	0	100	44.79	0	0	0	145
6/13/2006	0	100	100	0	0	0	200
6/20/2006	0	100	35.72	0	0	0	136
6/27/2006	0	100	35.72	0	0	0	136
7/4/2006	0	100	37.13	0	0	0	137
7/11/2006	0	100	21.03	0	0	0	121
7/18/2006	0	100	21.03	0	0	0	121
7/25/2006	0	100	100	0	0	0	200

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/1/2006	0	100	100	0	0	0	200
8/8/2006	0	100	100	0	0	0	200
8/15/2006	0	100	100	0	0	0	200
8/22/2006	0	100	100	3.34	0	0	203
8/29/2006	0	100	100	0	0	0	200
9/5/2006	0	100	100	0	0	0	200
9/12/2006	0	100	100	0	0	0	200
9/19/2006	0	100	55.93	0	0	0	156
9/26/2006	0	100	55.93	0	0	0	156
10/3/2006	0	100	100	0	0	0	200
10/10/2006	0	100	100	0	0	0	200
10/17/2006	0	100	100	0	0	0	200
10/24/2006	0	100	100	0	0	0	200
10/31/2006	0	100	100	0	0	0	200
11/7/2006	0	100	100	0	0	0	200
11/14/2006	0	100	100	0	0	0	200
11/21/2006	0	100	0	0	0	0	100
11/28/2006	100	0	0	0	0	0	0
12/5/2006	100	0	0	0	0	0	0
12/12/2006	0	100	0	0	0	0	100
12/19/2006	0	100	0	0	0	0	100
12/26/2006	0	100	0	0	0	0	100
1/2/2007	0	100	0	0	0	0	100
1/9/2007	0	100	0	0	0	0	100
1/16/2007	100	0	0	0	0	0	0
1/23/2007	100	0	0	0	0	0	0
1/30/2007	100	0	0	0	0	0	0
2/6/2007	100	0	0	0	0	0	0
2/13/2007	100	0	0	0	0	0	0
2/20/2007	8.84	91.16	0	0	0	0	91
2/27/2007	0	100	0	0	0	0	100
3/6/2007	100	0	0	0	0	0	0
3/13/2007	100	0	0	0	0	0	0
3/20/2007	0	100	0	0	0	0	100
3/27/2007	0	100	0	0	0	0	100
4/3/2007	0	100	0	0	0	0	100
4/10/2007	0	100	0	0	0	0	100
4/17/2007	0	100	0	0	0	0	100
4/24/2007	0	100	100	0	0	0	200
5/1/2007	0	100	100	0	0	0	200
5/8/2007	0	100	100	0	0	0	200
5/15/2007	0	100	100	0	0	0	200
5/22/2007	0	100	100	73.4	0	0	273

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
5/29/2007	0	100	100	73.4	0	0	273
6/5/2007	0	100	74.45	0	0	0	174
6/12/2007	0	100	74.45	0	0	0	174
6/19/2007	0	100	74.45	0	0	0	174
6/26/2007	0	100	74.45	0	0	0	174
7/3/2007	0	100	30.43	0	0	0	130
7/10/2007	0	100	30.43	0	0	0	130
7/17/2007	0	100	30.43	0	0	0	130
7/24/2007	0	100	30.43	0	0	0	130
7/31/2007	0	100	30.43	0	0	0	130
8/7/2007	0	100	100	0	0	0	200
8/14/2007	0	100	100	0	0	0	200
8/21/2007	0	100	100	100	0	0	300
8/28/2007	0	100	100	100	0	0	300
9/4/2007	0	100	92.96	5.14	0	0	198
9/11/2007	0	100	92.96	10.29	0	0	203
9/18/2007	16.62	83.38	20.19	0	0	0	104
9/25/2007	16.62	83.38	20.19	0	0	0	104
10/2/2007	16.62	83.38	20.19	0	0	0	104
10/9/2007	9.22	90.78	44.74	1.55	0	0	137
10/16/2007	0	100	85.59	28.85	0	0	214
10/23/2007	0	100	85.59	28.85	0	0	214
10/30/2007	0	100	85.59	28.85	0	0	214
11/6/2007	0	100	85.59	28.85	0	0	214
11/13/2007	0	100	100	74	9.27	0	283
11/20/2007	0	100	100	74	9.27	0	283
11/27/2007	0	100	100	74	9.27	0	283
12/4/2007	0	100	100	94.46	41.32	0	336
12/11/2007	0	100	100	100	85.45	23.32	409
12/18/2007	0	100	100	100	85.45	23.32	409
12/25/2007	0	100	100	100	85.45	23.32	409
1/1/2008	0	100	100	91.42	2.29	0	294
1/8/2008	0	100	100	91.42	2.29	0	294
1/15/2008	0	100	100	91.42	2.29	0	294
1/22/2008	0	100	100	49.62	0	0	250
1/29/2008	0	100	100	49.62	0	0	250
2/5/2008	0	100	100	49.62	0	0	250
2/12/2008	0	100	100	49.62	0	0	250
2/19/2008	0	100	100	49.62	0	0	250
2/26/2008	0	100	85.59	0.98	0	0	187
3/4/2008	0	100	85.59	0.98	0	0	187
3/11/2008	0.29	99.71	0.8	0	0	0	101
3/18/2008	0.29	99.71	0.8	0	0	0	101

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
3/25/2008	0.29	99.71	0.8	0	0	0	101
4/1/2008	0.29	99.71	0.8	0	0	0	101
4/8/2008	0.29	99.71	0.8	0	0	0	101
4/15/2008	0.29	99.71	0.8	0	0	0	101
4/22/2008	0.29	99.71	0.8	0	0	0	101
4/29/2008	0.29	99.71	0.8	0	0	0	101
5/6/2008	0.29	99.71	0.8	0	0	0	101
5/13/2008	0.29	99.71	0.8	0	0	0	101
5/20/2008	0	100	0.8	0	0	0	101
5/27/2008	0	100	0.8	0	0	0	101
6/3/2008	0	100	10.64	0	0	0	111
6/10/2008	0	100	10.64	0	0	0	111
6/17/2008	0	100	100	0	0	0	200
6/24/2008	0	100	100	0	0	0	200
7/1/2008	0	100	100	68.06	0	0	268
7/8/2008	0	100	100	68.06	0	0	268
7/15/2008	0	100	100	68.06	0	0	268
7/22/2008	0	100	100	100	0	0	300
7/29/2008	0	100	100	100	0	0	300
8/5/2008	0	100	100	100	0	0	300
8/12/2008	0	100	100	100	0	0	300
8/19/2008	0	100	100	100	0	0	300
8/26/2008	0	100	100	100	0	0	300
9/2/2008	0	100	100	100	0	0	300
9/9/2008	0	100	100	100	0	0	300
9/16/2008	0	100	100	100	0	0	300
9/23/2008	0	100	100	100	0	0	300
9/30/2008	0	100	100	100	89.55	0	390
10/7/2008	0	100	100	100	89.55	0	390
10/14/2008	0	100	100	100	90.27	0	390
10/21/2008	0	100	100	100	90.27	0	390
10/28/2008	0	100	100	100	15.84	0	316
11/4/2008	0	100	100	100	15.84	0	316
11/11/2008	0	100	100	100	15.84	0	316
11/18/2008	0	100	100	100	0	0	300
11/25/2008	0	100	100	100	0	0	300
12/2/2008	0	100	100	18.19	0	0	218
12/9/2008	0	100	22.27	0	0	0	122
12/16/2008	100	0	0	0	0	0	0
12/23/2008	100	0	0	0	0	0	0
12/30/2008	100	0	0	0	0	0	0
1/6/2009	100	0	0	0	0	0	0
1/13/2009	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
1/20/2009	100	0	0	0	0	0	0
1/27/2009	100	0	0	0	0	0	0
2/3/2009	100	0	0	0	0	0	0
2/10/2009	0	100	0	0	0	0	100
2/17/2009	0	100	0	0	0	0	100
2/24/2009	0	100	100	0	0	0	200
3/3/2009	0	100	100	0	0	0	200
3/10/2009	0	100	100	0	0	0	200
3/17/2009	0	100	100	0	0	0	200
3/24/2009	0	100	100	0	0	0	200
3/31/2009	0	100	47.56	0	0	0	148
4/7/2009	100	0	0	0	0	0	0
4/14/2009	100	0	0	0	0	0	0
4/21/2009	100	0	0	0	0	0	0
4/28/2009	100	0	0	0	0	0	0
5/5/2009	100	0	0	0	0	0	0
5/12/2009	100	0	0	0	0	0	0
5/19/2009	100	0	0	0	0	0	0
5/26/2009	100	0	0	0	0	0	0
6/2/2009	100	0	0	0	0	0	0
6/9/2009	100	0	0	0	0	0	0
6/16/2009	100	0	0	0	0	0	0
6/23/2009	100	0	0	0	0	0	0
6/30/2009	100	0	0	0	0	0	0
7/7/2009	0	100	0	0	0	0	100
7/14/2009	25.74	74.26	0	0	0	0	74
7/21/2009	25.74	74.26	0	0	0	0	74
7/28/2009	25.74	74.26	0	0	0	0	74
8/4/2009	25.74	74.26	0	0	0	0	74
8/11/2009	25.74	74.26	0	0	0	0	74
8/18/2009	25.74	74.26	0	0	0	0	74
8/25/2009	25.74	74.26	0	0	0	0	74
9/1/2009	25.74	74.26	0	0	0	0	74
9/8/2009	25.65	74.35	0	0	0	0	74
9/15/2009	97.47	2.53	0	0	0	0	3
9/22/2009	100	0	0	0	0	0	0
9/29/2009	100	0	0	0	0	0	0
10/6/2009	100	0	0	0	0	0	0
10/13/2009	100	0	0	0	0	0	0
10/20/2009	100	0	0	0	0	0	0
10/27/2009	100	0	0	0	0	0	0
11/3/2009	100	0	0	0	0	0	0
11/10/2009	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
11/17/2009	100	0	0	0	0	0	0
11/24/2009	100	0	0	0	0	0	0
12/1/2009	100	0	0	0	0	0	0
12/8/2009	100	0	0	0	0	0	0
12/15/2009	100	0	0	0	0	0	0
12/22/2009	100	0	0	0	0	0	0
12/29/2009	100	0	0	0	0	0	0
1/5/2010	100	0	0	0	0	0	0
1/12/2010	100	0	0	0	0	0	0
1/19/2010	100	0	0	0	0	0	0
1/26/2010	100	0	0	0	0	0	0
2/2/2010	100	0	0	0	0	0	0
2/9/2010	100	0	0	0	0	0	0
2/16/2010	100	0	0	0	0	0	0
2/23/2010	100	0	0	0	0	0	0
3/2/2010	100	0	0	0	0	0	0
3/9/2010	100	0	0	0	0	0	0
3/16/2010	100	0	0	0	0	0	0
3/23/2010	100	0	0	0	0	0	0
3/30/2010	100	0	0	0	0	0	0
4/6/2010	100	0	0	0	0	0	0
4/13/2010	100	0	0	0	0	0	0
4/20/2010	100	0	0	0	0	0	0
4/27/2010	100	0	0	0	0	0	0
5/4/2010	100	0	0	0	0	0	0
5/11/2010	100	0	0	0	0	0	0
5/18/2010	100	0	0	0	0	0	0
5/25/2010	100	0	0	0	0	0	0
6/1/2010	100	0	0	0	0	0	0
6/8/2010	100	0	0	0	0	0	0
6/15/2010	100	0	0	0	0	0	0
6/22/2010	100	0	0	0	0	0	0
6/29/2010	100	0	0	0	0	0	0
7/6/2010	100	0	0	0	0	0	0
7/13/2010	100	0	0	0	0	0	0
7/20/2010	91.92	8.08	0	0	0	0	8
7/27/2010	71.36	28.64	0	0	0	0	29
8/3/2010	100	0	0	0	0	0	0
8/10/2010	100	0	0	0	0	0	0
8/17/2010	99.99	0.01	0	0	0	0	0
8/24/2010	100	0	0	0	0	0	0
8/31/2010	100	0	0	0	0	0	0
9/7/2010	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
9/14/2010	0	100	0	0	0	0	100
9/21/2010	0	100	0	0	0	0	100
9/28/2010	0	100	0	0	0	0	100
10/5/2010	0	100	0	0	0	0	100
10/12/2010	0	100	0	0	0	0	100
10/19/2010	0	100	0	0	0	0	100
10/26/2010	0	100	0	0	0	0	100
11/2/2010	0	100	0	0	0	0	100
11/9/2010	0	100	0	0	0	0	100
11/16/2010	0	100	0	0	0	0	100
11/23/2010	0	100	100	0	0	0	200
11/30/2010	0	100	100	0	0	0	200
12/7/2010	0	100	100	0	0	0	200
12/14/2010	0	100	100	0	0	0	200
12/21/2010	0	100	100	0	0	0	200
12/28/2010	0	100	100	0	0	0	200
1/4/2011	0	100	100	0	0	0	200
1/11/2011	0	100	100	0	0	0	200
1/18/2011	0	100	100	0	0	0	200
1/25/2011	0	100	100	0	0	0	200
2/1/2011	0	100	100	0	0	0	200
2/8/2011	0	100	15.12	0	0	0	115
2/15/2011	0	100	15.12	0	0	0	115
2/22/2011	0	100	15.12	0	0	0	115
3/1/2011	0	100	15.12	0	0	0	115
3/8/2011	0	100	15.12	0	0	0	115
3/15/2011	0	100	32.43	0	0	0	132
3/22/2011	0	100	100	0	0	0	200
3/29/2011	0	100	100	0	0	0	200
4/5/2011	0	100	100	0	0	0	200
4/12/2011	0	100	100	0	0	0	200
4/19/2011	0	100	100	0	0	0	200
4/26/2011	0	100	100	0	0	0	200
5/3/2011	0	100	100	0	0	0	200
5/10/2011	0	100	100	0	0	0	200
5/17/2011	0	100	100	98.91	0	0	299
5/24/2011	0	100	100	98.91	0	0	299
5/31/2011	0	100	100	100	1.11	0	301
6/7/2011	0	100	100	100	1.02	0	301
6/14/2011	0	100	100	100	0.92	0	301
6/21/2011	0	100	100	100	100	0.08	400
6/28/2011	0	100	100	100	100	0.08	400
7/5/2011	0	100	100	100	100	0.08	400

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
7/12/2011	0	100	100	100	100	0.08	400
7/19/2011	0	100	100	100	100	0	400
7/26/2011	0	100	100	100	100	0	400
8/2/2011	0	100	100	100	100	0	400
8/9/2011	0	100	100	100	5.97	0	306
8/16/2011	0	100	100	100	5.97	0	306
8/23/2011	0	100	100	100	5.97	0	306
8/30/2011	0	100	100	100	100	0	400
9/6/2011	0	100	100	100	100	0	400
9/13/2011	0	100	100	100	100	0	400
9/20/2011	0	100	100	100	100	0	400
9/27/2011	0	100	100	100	100	0	400
10/4/2011	0	100	100	100	100	0	400
10/11/2011	0	100	100	100	100	0	400
10/18/2011	0	100	100	100	45	0	345
10/25/2011	0	100	100	100	43.71	0	344
11/1/2011	0	100	100	100	43.71	0	344
11/8/2011	0	100	100	100	43.71	0	344
11/15/2011	0	100	100	100	34.61	0	335
11/22/2011	0	100	100	100	34.61	0	335
11/29/2011	0	100	100	100	34.61	0	335
12/6/2011	0	100	100	100	34.61	0	335
12/13/2011	0	100	100	100	34.61	0	335
12/20/2011	0	100	100	100	100	0	400
12/27/2011	0	100	100	100	100	0	400
1/3/2012	0	100	100	100	100	0	400
1/10/2012	0	100	100	100	100	0	400
1/17/2012	0	100	100	100	100	0	400
1/24/2012	0	100	100	100	100	0	400
1/31/2012	0	100	100	100	100	0	400
2/7/2012	0	100	100	100	100	0	400
2/14/2012	0	100	100	100	100	0.01	400
2/21/2012	0	100	100	100	100	0	400
2/28/2012	0	100	100	100	100	0	400
3/6/2012	0	100	100	100	100	0	400
3/13/2012	0	100	100	100	100	0	400
3/20/2012	0	100	100	100	100	0	400
3/27/2012	0	100	100	100	100	0	400
4/3/2012	0	100	100	100	100	0	400
4/10/2012	0	100	100	100	100	83.8	484
4/17/2012	0	100	100	100	100	83.8	484
4/24/2012	0	100	100	100	100	83.8	484
5/1/2012	0	100	100	100	100	92.61	493

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
5/8/2012	0	100	100	100	100	92.61	493
5/15/2012	0	100	100	100	100	100	500
5/22/2012	0	100	100	100	100	100	500
5/29/2012	0	100	100	100	100	100	500
6/5/2012	0	100	100	100	100	54.12	454
6/12/2012	0	100	100	100	74.25	47.4	422
6/19/2012	0	100	100	100	74.25	53.83	428
6/26/2012	0	100	100	100	74.25	53.83	428
7/3/2012	0	100	100	100	74.25	53.83	428
7/10/2012	0	100	100	100	74.25	53.83	428
7/17/2012	0	100	100	100	74.25	53.83	428
7/24/2012	0	100	100	100	74.25	53.83	428
7/31/2012	0	100	100	100	74.25	53.83	428
8/7/2012	0	100	100	100	74.25	53.83	428
8/14/2012	0	100	100	99.66	74.25	22.9	397
8/21/2012	0	100	100	99.66	74.25	22.9	397
8/28/2012	0	100	100	84.26	66.86	19.69	371
9/4/2012	0	100	100	83.72	44.4	19.69	348
9/11/2012	0	100	100	83.72	44.4	19.69	348
9/18/2012	0	100	100	83.72	44.4	19.69	348
9/25/2012	0	100	100	83.72	44.84	19.69	348
10/2/2012	0	100	100	83.72	44.84	22.04	351
10/9/2012	0	100	100	83.72	44.84	22.04	351
10/16/2012	0	100	100	83.72	44.84	22.04	351
10/23/2012	0	100	100	83.72	44.84	22.04	351
10/30/2012	0	100	100	83.72	44.84	22.04	351
11/6/2012	0	100	100	82.85	44.84	22.04	350
11/13/2012	0	100	100	99.15	46.36	22.04	368
11/20/2012	0	100	100	100	48.71	22.04	371
11/27/2012	0	100	100	100	48.71	22.04	371
12/4/2012	0	100	100	100	71.68	22.04	394
12/11/2012	0	100	100	100	72.05	22.04	394
12/18/2012	0	100	100	100	72.05	22.04	394
12/25/2012	0	100	100	100	72.05	22.04	394
1/1/2013	0	100	100	100	72.05	22.04	394
1/8/2013	0	100	100	100	72.05	22.04	394
1/15/2013	0	100	100	100	73.6	22.04	396
1/22/2013	0	100	100	100	73.6	22.04	396
1/29/2013	0	100	100	100	86.63	22.04	409
2/5/2013	0	100	100	100	86.63	22.04	409
2/12/2013	0	100	100	100	72.48	0	372
2/19/2013	0	100	100	100	72.48	0	372
2/26/2013	0	100	100	72.78	0	0	273

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
3/5/2013	0	100	83.41	57.63	0	0	241
3/12/2013	0	100	83.41	57.63	0	0	241
3/19/2013	0	100	77.53	1.55	0	0	179
3/26/2013	21.39	78.61	2.08	0	0	0	81
4/2/2013	21.39	78.61	2.08	0	0	0	81
4/9/2013	98.14	1.86	0	0	0	0	2
4/16/2013	98.14	1.86	0	0	0	0	2
4/23/2013	98.37	1.63	0	0	0	0	2
4/30/2013	100	0	0	0	0	0	0
5/7/2013	100	0	0	0	0	0	0
5/14/2013	100	0	0	0	0	0	0
5/21/2013	100	0	0	0	0	0	0
5/28/2013	100	0	0	0	0	0	0
6/4/2013	100	0	0	0	0	0	0
6/11/2013	100	0	0	0	0	0	0
6/18/2013	100	0	0	0	0	0	0
6/25/2013	100	0	0	0	0	0	0
7/2/2013	100	0	0	0	0	0	0
7/9/2013	100	0	0	0	0	0	0
7/16/2013	100	0	0	0	0	0	0
7/23/2013	100	0	0	0	0	0	0
7/30/2013	100	0	0	0	0	0	0
8/6/2013	100	0	0	0	0	0	0
8/13/2013	100	0	0	0	0	0	0
8/20/2013	100	0	0	0	0	0	0
8/27/2013	100	0	0	0	0	0	0
9/3/2013	100	0	0	0	0	0	0
9/10/2013	100	0	0	0	0	0	0
9/17/2013	100	0	0	0	0	0	0
9/24/2013	100	0	0	0	0	0	0
10/1/2013	100	0	0	0	0	0	0
10/8/2013	100	0	0	0	0	0	0
10/15/2013	100	0	0	0	0	0	0
10/22/2013	41.13	58.87	0	0	0	0	59
10/29/2013	34.79	65.21	0	0	0	0	65
11/5/2013	34.79	65.21	0	0	0	0	65
11/12/2013	35.99	64.01	0	0	0	0	64
11/19/2013	0	100	0	0	0	0	100
11/26/2013	0	100	0	0	0	0	100
12/3/2013	0	100	0	0	0	0	100
12/10/2013	0.19	99.81	0	0	0	0	100
12/17/2013	0.19	99.81	0	0	0	0	100
12/24/2013	0.19	99.81	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
12/31/2013	100	0	0	0	0	0	0
1/7/2014	100	0	0	0	0	0	0
1/14/2014	100	0	0	0	0	0	0
1/21/2014	100	0	0	0	0	0	0
1/28/2014	100	0	0	0	0	0	0
2/4/2014	100	0	0	0	0	0	0
2/11/2014	100	0	0	0	0	0	0
2/18/2014	100	0	0	0	0	0	0
2/25/2014	100	0	0	0	0	0	0
3/4/2014	100	0	0	0	0	0	0
3/11/2014	100	0	0	0	0	0	0
3/18/2014	100	0	0	0	0	0	0
3/25/2014	100	0	0	0	0	0	0
4/1/2014	100	0	0	0	0	0	0
4/8/2014	100	0	0	0	0	0	0
4/15/2014	100	0	0	0	0	0	0
4/22/2014	100	0	0	0	0	0	0
4/29/2014	100	0	0	0	0	0	0
5/6/2014	100	0	0	0	0	0	0
5/13/2014	100	0	0	0	0	0	0
5/20/2014	100	0	0	0	0	0	0
5/27/2014	100	0	0	0	0	0	0
6/3/2014	100	0	0	0	0	0	0
6/10/2014	100	0	0	0	0	0	0
6/17/2014	100	0	0	0	0	0	0
6/24/2014	92.74	7.26	0	0	0	0	7
7/1/2014	93.07	6.93	0	0	0	0	7
7/8/2014	93.07	6.93	0	0	0	0	7
7/15/2014	76.18	23.82	0	0	0	0	24
7/22/2014	100	0	0	0	0	0	0
7/29/2014	100	0	0	0	0	0	0
8/5/2014	100	0	0	0	0	0	0
8/12/2014	100	0	0	0	0	0	0
8/19/2014	100	0	0	0	0	0	0
8/26/2014	100	0	0	0	0	0	0
9/2/2014	28.77	71.23	0	0	0	0	71
9/9/2014	28.77	71.23	0	0	0	0	71
9/16/2014	28.77	71.23	0	0	0	0	71
9/23/2014	28.77	71.23	0	0	0	0	71
9/30/2014	28.77	71.23	0	0	0	0	71
10/7/2014	30.18	69.82	0	0	0	0	70
10/14/2014	30.87	69.13	0	0	0	0	69
10/21/2014	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/28/2014	0	100	0	0	0	0	100
11/4/2014	0	100	96.05	0	0	0	196
11/11/2014	0	100	96.05	0	0	0	196
11/18/2014	0	100	96.05	0	0	0	196
11/25/2014	0	100	58.52	0	0	0	159
12/2/2014	0	100	95.36	0	0	0	195
12/9/2014	0	100	99.34	0	0	0	199
12/16/2014	0	100	100	0	0	0	200
12/23/2014	0	100	100	0	0	0	200
12/30/2014	0	100	0	0	0	0	100
1/6/2015	0.95	99.05	0	0	0	0	99
1/13/2015	13.24	86.76	0	0	0	0	87
1/20/2015	13.24	86.76	0	0	0	0	87
1/27/2015	13.24	86.76	0	0	0	0	87
2/3/2015	13.24	86.76	0	0	0	0	87
2/10/2015	13.24	86.76	0	0	0	0	87
2/17/2015	13.24	86.76	0	0	0	0	87
2/24/2015	13.24	86.76	0	0	0	0	87
3/3/2015	100	0	0	0	0	0	0
3/10/2015	100	0	0	0	0	0	0
3/17/2015	100	0	0	0	0	0	0
3/24/2015	100	0	0	0	0	0	0
3/31/2015	100	0	0	0	0	0	0
4/7/2015	100	0	0	0	0	0	0
4/14/2015	100	0	0	0	0	0	0
4/21/2015	100	0	0	0	0	0	0
4/28/2015	100	0	0	0	0	0	0
5/5/2015	100	0	0	0	0	0	0
5/12/2015	100	0	0	0	0	0	0
5/19/2015	100	0	0	0	0	0	0
5/26/2015	100	0	0	0	0	0	0
6/2/2015	100	0	0	0	0	0	0
6/9/2015	100	0	0	0	0	0	0
6/16/2015	100	0	0	0	0	0	0
6/23/2015	34.05	65.95	0	0	0	0	66
6/30/2015	34.05	65.95	0	0	0	0	66
7/7/2015	34.05	65.95	0	0	0	0	66
7/14/2015	34.04	65.96	0	0	0	0	66
7/21/2015	33.94	66.06	0	0	0	0	66
7/28/2015	0	100	4.53	0	0	0	105
8/4/2015	0	100	94.53	0	0	0	195
8/11/2015	0	100	94.53	0	0	0	195
8/18/2015	0	100	94.53	0	0	0	195

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/25/2015	0	100	94.53	0	0	0	195
9/1/2015	6.45	93.55	69.93	0	0	0	163
9/8/2015	6.45	93.55	69.93	0	0	0	163
9/15/2015	31.43	68.57	27.93	0	0	0	97
9/22/2015	63.62	36.38	3.86	0	0	0	40
9/29/2015	85.09	14.91	0.34	0	0	0	15
10/6/2015	95.59	4.41	0	0	0	0	4
10/13/2015	95.6	4.4	0	0	0	0	4
10/20/2015	95.6	4.4	0	0	0	0	4
10/27/2015	95.6	4.4	0	0	0	0	4
11/3/2015	100	0	0	0	0	0	0
11/10/2015	100	0	0	0	0	0	0
11/17/2015	100	0	0	0	0	0	0
11/24/2015	100	0	0	0	0	0	0
12/1/2015	100	0	0	0	0	0	0
12/8/2015	100	0	0	0	0	0	0
12/15/2015	100	0	0	0	0	0	0
12/22/2015	100	0	0	0	0	0	0
12/29/2015	100	0	0	0	0	0	0
1/5/2016	100	0	0	0	0	0	0
1/12/2016	100	0	0	0	0	0	0
1/19/2016	100	0	0	0	0	0	0
1/26/2016	100	0	0	0	0	0	0
2/2/2016	100	0	0	0	0	0	0
2/9/2016	100	0	0	0	0	0	0
2/16/2016	100	0	0	0	0	0	0
2/23/2016	100	0	0	0	0	0	0
3/1/2016	100	0	0	0	0	0	0
3/8/2016	100	0	0	0	0	0	0
3/15/2016	100	0	0	0	0	0	0
3/22/2016	99.98	0.02	0	0	0	0	0
3/29/2016	81.07	18.93	0	0	0	0	19
4/5/2016	100	0	0	0	0	0	0
4/12/2016	100	0	0	0	0	0	0
4/19/2016	100	0	0	0	0	0	0
4/26/2016	100	0	0	0	0	0	0
5/3/2016	8.85	91.15	0	0	0	0	91
5/10/2016	8.85	91.15	0	0	0	0	91
5/17/2016	8.85	91.15	0	0	0	0	91
5/24/2016	32.21	67.79	0	0	0	0	68
5/31/2016	52.68	47.32	0	0	0	0	47
6/7/2016	100	0	0	0	0	0	0
6/14/2016	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
6/21/2016	100	0	0	0	0	0	0
6/28/2016	100	0	0	0	0	0	0
7/5/2016	100	0	0	0	0	0	0
7/12/2016	100	0	0	0	0	0	0
7/19/2016	54.26	45.74	0	0	0	0	46
7/26/2016	54.26	45.74	0	0	0	0	46
8/2/2016	54.26	45.74	0	0	0	0	46
8/9/2016	54.26	45.74	0	0	0	0	46
8/16/2016	11.48	88.52	0.05	0	0	0	89
8/23/2016	0	100	1.29	0	0	0	101
8/30/2016	0	100	1.29	0	0	0	101
9/6/2016	98.59	1.41	0	0	0	0	1
9/13/2016	98.59	1.41	0	0	0	0	1
9/20/2016	98.59	1.41	0	0	0	0	1
9/27/2016	15.23	84.77	0	0	0	0	85
10/4/2016	15.41	84.59	0	0	0	0	85
10/11/2016	12.22	87.78	1.02	0	0	0	89
10/18/2016	12.02	87.98	47.32	0	0	0	135
10/25/2016	12.02	87.98	47.32	0	0	0	135
11/1/2016	12.02	87.98	47.32	0	0	0	135
11/8/2016	0	100	54.12	0	0	0	154
11/15/2016	0	100	54.12	0.3	0	0	154
11/22/2016	0	100	100	25.01	0.01	0	225
11/29/2016	0	100	100	99.08	22.78	0	322
12/6/2016	0	100	100	100	40.65	0	341
12/13/2016	0	100	100	100	40.65	0	341
12/20/2016	0	100	100	100	40.65	0	341
12/27/2016	0	100	100	100	40.65	0	341
1/3/2017	0	100	100	0	0	0	200
1/10/2017	0	100	0	0	0	0	100
1/17/2017	0	100	0	0	0	0	100
1/24/2017	100	0	0	0	0	0	0
1/31/2017	100	0	0	0	0	0	0
2/7/2017	100	0	0	0	0	0	0
2/14/2017	100	0	0	0	0	0	0
2/21/2017	100	0	0	0	0	0	0
2/28/2017	100	0	0	0	0	0	0
3/7/2017	100	0	0	0	0	0	0
3/14/2017	100	0	0	0	0	0	0
3/21/2017	37.78	62.22	0	0	0	0	62
3/28/2017	25.14	74.86	0	0	0	0	75
4/4/2017	25.14	74.86	0	0	0	0	75
4/11/2017	25.14	74.86	0	0	0	0	75

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
4/18/2017	0	100	41.61	0	0	0	142
4/25/2017	0	100	41.62	0	0	0	142
5/2/2017	0	100	41.62	0	0	0	142
5/9/2017	0	100	41.62	0	0	0	142
5/16/2017	0	100	41.62	0	0	0	142
5/23/2017	0	100	41.61	0	0	0	142
5/30/2017	0	100	41.61	0	0	0	142
6/6/2017	0	100	27.63	0	0	0	128
6/13/2017	0	100	14.45	0	0	0	114
6/20/2017	0	100	14.45	0	0	0	114
6/27/2017	0	100	0	0	0	0	100
7/4/2017	100	0	0	0	0	0	0
7/11/2017	100	0	0	0	0	0	0
7/18/2017	100	0	0	0	0	0	0
7/25/2017	100	0	0	0	0	0	0
8/1/2017	100	0	0	0	0	0	0
8/8/2017	100	0	0	0	0	0	0
8/15/2017	100	0	0	0	0	0	0
8/22/2017	100	0	0	0	0	0	0
8/29/2017	100	0	0	0	0	0	0
9/5/2017	100	0	0	0	0	0	0
9/12/2017	100	0	0	0	0	0	0
9/19/2017	100	0	0	0	0	0	0
9/26/2017	100	0	0	0	0	0	0
10/3/2017	100	0	0	0	0	0	0
10/10/2017	100	0	0	0	0	0	0
10/17/2017	8.5	91.5	0	0	0	0	92
10/24/2017	8.98	91.02	0	0	0	0	91
10/31/2017	8.98	91.02	0	0	0	0	91
11/7/2017	8.98	91.02	0	0	0	0	91
11/14/2017	0	100	70.41	0	0	0	170
11/21/2017	0	100	70.41	0	0	0	170
11/28/2017	0	100	100	0	0	0	200
12/5/2017	0	100	100	0	0	0	200
12/12/2017	0	100	69.33	0	0	0	169
12/19/2017	0	100	69.33	0	0	0	169
12/26/2017	0	100	64.69	0	0	0	165
1/2/2018	0	100	64.69	0	0	0	165
1/9/2018	0	100	64.69	0	0	0	165
1/16/2018	0	100	60.31	0	0	0	160
1/23/2018	0	100	60.31	0	0	0	160
1/30/2018	0	100	0	0	0	0	100
2/6/2018	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
2/13/2018	0	100	0	0	0	0	100
2/20/2018	0	100	0	0	0	0	100
2/27/2018	0	100	0	0	0	0	100
3/6/2018	0	100	69.14	0	0	0	169
3/13/2018	0	100	100	0	0	0	200
3/20/2018	0	100	77.06	0	0	0	177
3/27/2018	0	100	77.05	0	0	0	177
4/3/2018	0	100	77.05	0	0	0	177
4/10/2018	0	100	100	0	0	0	200
4/17/2018	0	100	100	0	0	0	200
4/24/2018	0	100	100	0	0	0	200
5/1/2018	0	100	92.93	0	0	0	193
5/8/2018	0	100	92.93	0	0	0	193
5/15/2018	0	100	92.93	0	0	0	193
5/22/2018	6.51	93.49	0	0	0	0	93
5/29/2018	100	0	0	0	0	0	0
6/5/2018	100	0	0	0	0	0	0
6/12/2018	100	0	0	0	0	0	0
6/19/2018	100	0	0	0	0	0	0
6/26/2018	100	0	0	0	0	0	0
7/3/2018	100	0	0	0	0	0	0
7/10/2018	100	0	0	0	0	0	0
7/17/2018	100	0	0	0	0	0	0
7/24/2018	100	0	0	0	0	0	0
7/31/2018	100	0	0	0	0	0	0
8/7/2018	100	0	0	0	0	0	0
8/14/2018	100	0	0	0	0	0	0
8/21/2018	100	0	0	0	0	0	0
8/28/2018	100	0	0	0	0	0	0
9/4/2018	33.33	66.67	0	0	0	0	67
9/11/2018	33.33	66.67	0	0	0	0	67
9/18/2018	33.33	66.67	0.05	0	0	0	67
9/25/2018	20.36	79.64	34.8	0	0	0	114
10/2/2018	19.03	80.97	37.54	0	0	0	119
10/9/2018	19.03	80.97	37.54	0	0	0	119
10/16/2018	55.09	44.91	0	0	0	0	45
10/23/2018	55.09	44.91	0	0	0	0	45
10/30/2018	100	0	0	0	0	0	0
11/6/2018	100	0	0	0	0	0	0
11/13/2018	100	0	0	0	0	0	0
11/20/2018	100	0	0	0	0	0	0
11/27/2018	100	0	0	0	0	0	0
12/4/2018	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
12/11/2018	100	0	0	0	0	0	0
12/18/2018	100	0	0	0	0	0	0
12/25/2018	100	0	0	0	0	0	0
1/1/2019	100	0	0	0	0	0	0
1/8/2019	100	0	0	0	0	0	0
1/15/2019	100	0	0	0	0	0	0
1/22/2019	100	0	0	0	0	0	0
1/29/2019	100	0	0	0	0	0	0
2/5/2019	100	0	0	0	0	0	0
2/12/2019	100	0	0	0	0	0	0
2/19/2019	100	0	0	0	0	0	0
2/26/2019	100	0	0	0	0	0	0
3/5/2019	100	0	0	0	0	0	0
3/12/2019	0	100	0	0	0	0	100
3/19/2019	0	100	0	0	0	0	100
3/26/2019	0	100	0	0	0	0	100
4/2/2019	0	100	29.79	0	0	0	130
4/9/2019	0	100	14.07	0	0	0	114
4/16/2019	0	100	14.08	0	0	0	114
4/23/2019	0	100	14.08	0	0	0	114
4/30/2019	0	100	17.02	0	0	0	117
5/7/2019	0	100	17.02	0	0	0	117
5/14/2019	0	100	15.77	0	0	0	116
5/21/2019	0	100	15.77	0	0	0	116
5/28/2019	0	100	15.77	0	0	0	116
6/4/2019	0	100	66.3	0	0	0	166
6/11/2019	0	100	1.75	0	0	0	102
6/18/2019	97.89	2.11	0	0	0	0	2
6/25/2019	100	0	0	0	0	0	0
7/2/2019	100	0	0	0	0	0	0
7/9/2019	100	0	0	0	0	0	0
7/16/2019	100	0	0	0	0	0	0
7/23/2019	100	0	0	0	0	0	0
7/30/2019	100	0	0	0	0	0	0
8/6/2019	99.57	0.43	0	0	0	0	0
8/13/2019	17.71	82.29	0	0	0	0	82
8/20/2019	97.07	2.93	0	0	0	0	3
8/27/2019	100	0	0	0	0	0	0
9/3/2019	91.1	8.9	0	0	0	0	9
9/10/2019	91.1	8.9	0	0	0	0	9
9/17/2019	90.37	9.63	0	0	0	0	10
9/24/2019	0	100	0.01	0	0	0	100
10/1/2019	0	100	0.01	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
10/8/2019	0	100	100	0	0	0	200
10/15/2019	0	100	100	4.48	0	0	204
10/22/2019	0	100	100	0.05	0	0	200
10/29/2019	0	100	100	0.05	0	0	200
11/5/2019	0	100	69.75	0	0	0	170
11/12/2019	29.51	70.49	0	0	0	0	70
11/19/2019	99.99	0.01	0	0	0	0	0
11/26/2019	99.99	0.01	0	0	0	0	0
12/3/2019	100	0	0	0	0	0	0
12/10/2019	100	0	0	0	0	0	0
12/17/2019	100	0	0	0	0	0	0
12/24/2019	100	0	0	0	0	0	0
12/31/2019	100	0	0	0	0	0	0
1/7/2020	100	0	0	0	0	0	0
1/14/2020	100	0	0	0	0	0	0
1/21/2020	100	0	0	0	0	0	0
1/28/2020	100	0	0	0	0	0	0
2/4/2020	100	0	0	0	0	0	0
2/11/2020	100	0	0	0	0	0	0
2/18/2020	100	0	0	0	0	0	0
2/25/2020	100	0	0	0	0	0	0
3/3/2020	100	0	0	0	0	0	0
3/10/2020	100	0	0	0	0	0	0
3/17/2020	100	0	0	0	0	0	0
3/24/2020	100	0	0	0	0	0	0
3/31/2020	100	0	0	0	0	0	0
4/7/2020	100	0	0	0	0	0	0
4/14/2020	100	0	0	0	0	0	0
4/21/2020	100	0	0	0	0	0	0
4/28/2020	100	0	0	0	0	0	0
5/5/2020	100	0	0	0	0	0	0
5/12/2020	100	0	0	0	0	0	0
5/19/2020	100	0	0	0	0	0	0
5/26/2020	100	0	0	0	0	0	0
6/2/2020	100	0	0	0	0	0	0
6/9/2020	100	0	0	0	0	0	0
6/16/2020	100	0	0	0	0	0	0
6/23/2020	100	0	0	0	0	0	0
6/30/2020	100	0	0	0	0	0	0
7/7/2020	100	0	0	0	0	0	0
7/14/2020	100	0	0	0	0	0	0
7/21/2020	35.08	64.92	0	0	0	0	65
7/28/2020	22.92	77.08	0	0	0	0	77

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
8/4/2020	8.45	91.55	0	0	0	0	92
8/11/2020	99.03	0.97	0	0	0	0	1
8/18/2020	100	0	0	0	0	0	0
8/25/2020	100	0	0	0	0	0	0
9/1/2020	100	0	0	0	0	0	0
9/8/2020	100	0	0	0	0	0	0
9/15/2020	100	0	0	0	0	0	0
9/22/2020	100	0	0	0	0	0	0
9/29/2020	100	0	0	0	0	0	0
10/6/2020	100	0	0	0	0	0	0
10/13/2020	100	0	0	0	0	0	0
10/20/2020	100	0	0	0	0	0	0
10/27/2020	96.1	3.9	0	0	0	0	4
11/3/2020	86.39	13.61	0	0	0	0	14
11/10/2020	83.96	16.04	0	0	0	0	16
11/17/2020	84.24	15.76	0	0	0	0	16
11/24/2020	0	100	0	0	0	0	100
12/1/2020	0	100	0	0	0	0	100
12/8/2020	0	100	0	0	0	0	100
12/15/2020	0	100	0	0	0	0	100
12/22/2020	0	100	0	0	0	0	100
12/29/2020	0	100	0	0	0	0	100
1/5/2021	100	0	0	0	0	0	0
1/12/2021	100	0	0	0	0	0	0
1/19/2021	100	0	0	0	0	0	0
1/26/2021	100	0	0	0	0	0	0
2/2/2021	100	0	0	0	0	0	0
2/9/2021	100	0	0	0	0	0	0
2/16/2021	100	0	0	0	0	0	0
2/23/2021	100	0	0	0	0	0	0
3/2/2021	100	0	0	0	0	0	0
3/9/2021	100	0	0	0	0	0	0
3/16/2021	100	0	0	0	0	0	0
3/23/2021	100	0	0	0	0	0	0
3/30/2021	100	0	0	0	0	0	0
4/6/2021	100	0	0	0	0	0	0
4/13/2021	100	0	0	0	0	0	0
4/20/2021	0	100	0	0	0	0	100
4/27/2021	0	100	0	0	0	0	100
5/4/2021	0	100	0	0	0	0	100
5/11/2021	100	0	0	0	0	0	0
5/18/2021	100	0	0	0	0	0	0
5/25/2021	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
6/1/2021	90.63	9.37	0	0	0	0	9
6/8/2021	100	0	0	0	0	0	0
6/15/2021	100	0	0	0	0	0	0
6/22/2021	100	0	0	0	0	0	0
6/29/2021	100	0	0	0	0	0	0
7/6/2021	100	0	0	0	0	0	0
7/13/2021	100	0	0	0	0	0	0
7/20/2021	100	0	0	0	0	0	0
7/27/2021	100	0	0	0	0	0	0
8/3/2021	100	0	0	0	0	0	0
8/10/2021	100	0	0	0	0	0	0
8/17/2021	100	0	0	0	0	0	0
8/24/2021	100	0	0	0	0	0	0
8/31/2021	100	0	0	0	0	0	0
9/7/2021	100	0	0	0	0	0	0
9/14/2021	100	0	0	0	0	0	0
9/21/2021	100	0	0	0	0	0	0
9/28/2021	100	0	0	0	0	0	0
10/5/2021	100	0	0	0	0	0	0
10/12/2021	100	0	0	0	0	0	0
10/19/2021	96.85	3.15	0	0	0	0	3
10/26/2021	58.35	41.65	0	0	0	0	42
11/2/2021	58.35	41.65	0	0	0	0	42
11/9/2021	59.51	40.49	0	0	0	0	40
11/16/2021	57.28	42.72	0	0	0	0	43
11/23/2021	0.53	99.47	0	0	0	0	99
11/30/2021	0	100	0	0	0	0	100
12/7/2021	0	100	100	0	0	0	200
12/14/2021	0	100	57.55	0	0	0	158
12/21/2021	34.72	65.28	0	0	0	0	65
12/28/2021	24.79	75.21	0	0	0	0	75
1/4/2022	100	0	0	0	0	0	0
1/11/2022	100	0	0	0	0	0	0
1/18/2022	100	0	0	0	0	0	0
1/25/2022	100	0	0	0	0	0	0
2/1/2022	100	0	0	0	0	0	0
2/8/2022	100	0	0	0	0	0	0
2/15/2022	100	0	0	0	0	0	0
2/22/2022	100	0	0	0	0	0	0
3/1/2022	11.85	88.15	0	0	0	0	88
3/8/2022	0	100	0	0	0	0	100
3/15/2022	0	100	0	0	0	0	100
3/22/2022	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
3/29/2022	0	100	96.3	0	0	0	196
4/5/2022	0	100	96.3	0	0	0	196
4/12/2022	0	100	5.48	0	0	0	105
4/19/2022	0	100	5.48	0	0	0	105
4/26/2022	0	100	5.48	0	0	0	105
5/3/2022	0	100	7.37	0	0	0	107
5/10/2022	0	100	7.37	0	0	0	107
5/17/2022	0	100	7.37	0	0	0	107
5/24/2022	84.69	15.31	0	0	0	0	15
5/31/2022	84.69	15.31	0	0	0	0	15
6/7/2022	84.69	15.31	0	0	0	0	15
6/14/2022	0	100	4.39	0	0	0	104
6/21/2022	0	100	11.45	0	0	0	111
6/28/2022	0	100	60.18	0	0	0	160
7/5/2022	39.26	60.74	0.01	0	0	0	61
7/12/2022	34.98	65.02	0	0	0	0	65
7/19/2022	99.19	0.81	0	0	0	0	1
7/26/2022	100	0	0	0	0	0	0
8/2/2022	100	0	0	0	0	0	0
8/9/2022	95.08	4.92	0	0	0	0	5
8/16/2022	100	0	0	0	0	0	0
8/23/2022	100	0	0	0	0	0	0
8/30/2022	100	0	0	0	0	0	0
9/6/2022	100	0	0	0	0	0	0
9/13/2022	100	0	0	0	0	0	0
9/20/2022	100	0	0	0	0	0	0
9/27/2022	100	0	0	0	0	0	0
10/4/2022	100	0	0	0	0	0	0
10/11/2022	0	100	0	0	0	0	100
10/18/2022	100	0	0	0	0	0	0
10/25/2022	100	0	0	0	0	0	0
11/1/2022	92.94	7.06	0	0	0	0	7
11/8/2022	60.37	39.63	5.27	0	0	0	45
11/15/2022	67.25	32.75	5.27	0	0	0	38
11/22/2022	67.25	32.75	5.27	0	0	0	38
11/29/2022	67.99	32.01	5.27	0	0	0	37
12/6/2022	73.6	26.4	0	0	0	0	26
12/13/2022	73.6	26.4	0	0	0	0	26
12/20/2022	81.05	18.95	0	0	0	0	19
12/27/2022	81.05	18.95	0	0	0	0	19
1/3/2023	81.05	18.95	0	0	0	0	19
1/10/2023	98.56	1.44	0	0	0	0	1
1/17/2023	98.56	1.44	0	0	0	0	1

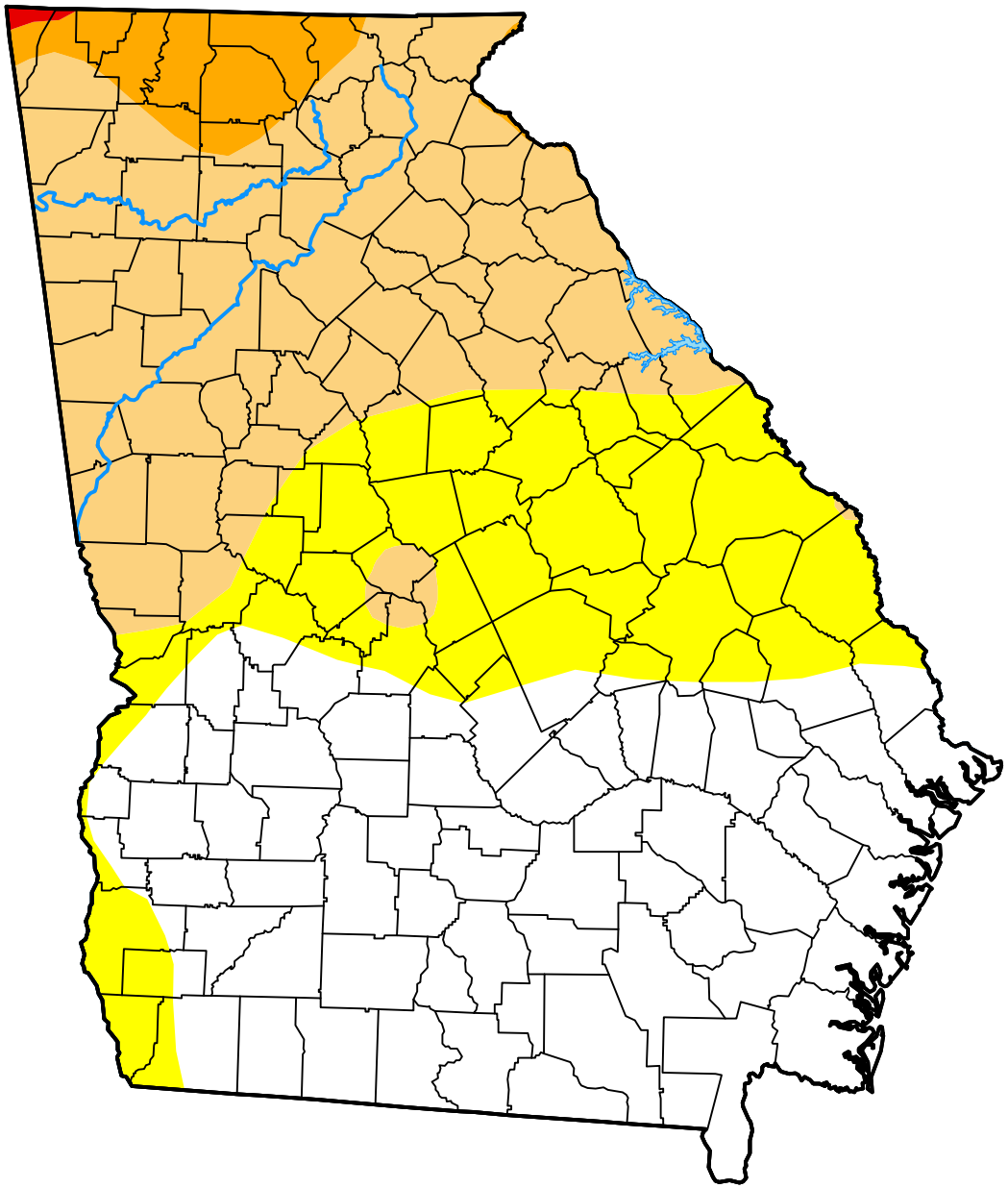
Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
1/24/2023	100	0	0	0	0	0	0
1/31/2023	100	0	0	0	0	0	0
2/7/2023	100	0	0	0	0	0	0
2/14/2023	100	0	0	0	0	0	0
2/21/2023	100	0	0	0	0	0	0
2/28/2023	100	0	0	0	0	0	0
3/7/2023	100	0	0	0	0	0	0
3/14/2023	100	0	0	0	0	0	0
3/21/2023	100	0	0	0	0	0	0
3/28/2023	100	0	0	0	0	0	0
4/4/2023	100	0	0	0	0	0	0
4/11/2023	100	0	0	0	0	0	0
4/18/2023	100	0	0	0	0	0	0
4/25/2023	100	0	0	0	0	0	0
5/2/2023	100	0	0	0	0	0	0
5/9/2023	100	0	0	0	0	0	0
5/16/2023	100	0	0	0	0	0	0
5/23/2023	100	0	0	0	0	0	0
5/30/2023	100	0	0	0	0	0	0
6/6/2023	100	0	0	0	0	0	0
6/13/2023	100	0	0	0	0	0	0
6/20/2023	100	0	0	0	0	0	0
6/27/2023	100	0	0	0	0	0	0
7/4/2023	100	0	0	0	0	0	0
7/11/2023	100	0	0	0	0	0	0
7/18/2023	100	0	0	0	0	0	0
7/25/2023	100	0	0	0	0	0	0
8/1/2023	100	0	0	0	0	0	0
8/8/2023	100	0	0	0	0	0	0
8/15/2023	100	0	0	0	0	0	0
8/22/2023	100	0	0	0	0	0	0
8/29/2023	100	0	0	0	0	0	0
9/5/2023	100	0	0	0	0	0	0
9/12/2023	100	0	0	0	0	0	0
9/19/2023	100	0	0	0	0	0	0
9/26/2023	100	0	0	0	0	0	0
10/3/2023	100	0	0	0	0	0	0
10/10/2023	100	0	0	0	0	0	0
10/17/2023	100	0	0	0	0	0	0
10/24/2023	100	0	0	0	0	0	0
10/31/2023	100	0	0	0	0	0	0
11/7/2023	100	0	0	0	0	0	0
11/14/2023	100	0	0	0	0	0	0

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
11/21/2023	100	0	0	0	0	0	0
11/28/2023	100	0	0	0	0	0	0
12/5/2023	100	0	0	0	0	0	0
12/12/2023	100	0	0	0	0	0	0
12/19/2023	100	0	0	0	0	0	0
12/26/2023	100	0	0	0	0	0	0
1/2/2024	100	0	0	0	0	0	0
1/9/2024	100	0	0	0	0	0	0
1/16/2024	100	0	0	0	0	0	0
1/23/2024	100	0	0	0	0	0	0
1/30/2024	100	0	0	0	0	0	0
2/6/2024	100	0	0	0	0	0	0
2/13/2024	100	0	0	0	0	0	0
2/20/2024	100	0	0	0	0	0	0
2/27/2024	100	0	0	0	0	0	0
3/5/2024	100	0	0	0	0	0	0
3/12/2024	100	0	0	0	0	0	0
3/19/2024	100	0	0	0	0	0	0
3/26/2024	100	0	0	0	0	0	0
4/2/2024	100	0	0	0	0	0	0
4/9/2024	100	0	0	0	0	0	0
4/16/2024	100	0	0	0	0	0	0
4/23/2024	100	0	0	0	0	0	0
4/30/2024	100	0	0	0	0	0	0
5/7/2024	100	0	0	0	0	0	0
5/14/2024	100	0	0	0	0	0	0
5/21/2024	100	0	0	0	0	0	0
5/28/2024	100	0	0	0	0	0	0
6/4/2024	100	0	0	0	0	0	0
6/11/2024	100	0	0	0	0	0	0
6/18/2024	100	0	0	0	0	0	0
6/25/2024	0	100	0	0	0	0	100
7/2/2024	0	100	70.15	0	0	0	170
7/9/2024	28.9	71.1	45.41	0	0	0	117
7/16/2024	28.9	71.1	46.25	0	0	0	117
7/23/2024	53.75	46.25	0	0	0	0	46
7/30/2024	100	0	0	0	0	0	0
8/6/2024	100	0	0	0	0	0	0
8/13/2024	100	0	0	0	0	0	0
8/20/2024	100	0	0	0	0	0	0
8/27/2024	100	0	0	0	0	0	0
9/3/2024	100	0	0	0	0	0	0
9/10/2024	0	100	0	0	0	0	100

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
9/17/2024	0	100	0	0	0	0	100
9/24/2024	0	100	0	0	0	0	100
10/1/2024	100	0	0	0	0	0	0
10/8/2024	100	0	0	0	0	0	0
10/15/2024	100	0	0	0	0	0	0
10/22/2024	100	0	0	0	0	0	0
10/29/2024	0	100	0	0	0	0	100
11/5/2024	0	100	0	0	0	0	100
11/12/2024	100	0	0	0	0	0	0
11/19/2024	100	0	0	0	0	0	0

U.S. Drought Monitor

Georgia



September 17, 2024

(Released Thursday, Sep. 19, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.18	56.82	34.07	4.03	0.12	0.00
Last Week *09-10-2024*	31.27	68.73	40.27	1.71	0.00	0.00
3 Months Ago *06-18-2024*	65.42	34.58	1.54	0.00	0.00	0.00
Start of Calendar Year *01-02-2024*	46.66	53.34	28.92	11.91	0.07	0.00
Start of Water Year *09-26-2023*	78.43	21.57	4.17	0.00	0.00	0.00
One Year Ago *09-19-2023*	83.52	16.48	1.62	0.00	0.00	0.00

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

Author:

Brad Rippey

U.S. Department of Agriculture

droughtmonitor.unl.edu

Wildfire

Jefferson County has a total area of 339,200 acres of which 14,847 acres (4.4%) dedicated to agricultural and 287,186 acres (84.5%) dedicated to forestry. Given the right weather conditions and variables, wildfire, due to natural causes, creates a potential threat to the lives of residents and property in the planning area. The NCEI has never reported a significant wildfire event in Jefferson County.

The committee reviewed historical data from the Georgia Forestry Commission, which is not found in the NCEI database, to research wildfire events in Jefferson County. The GFC provides wildfire data on man-made 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 2022, there have been 3,104 fire events burning a total of 17,277 acres for an average extent of 5.56 acres. Of these 3,104 fire events 168 were a result of lightning strikes that burned 1,505 acres. Based on best available data 180 wildfire events as a result of lightning occurred in the unincorporated areas of the county. While data was collected looking at 60 years of data, frequency rate was calculated using a 20-year hazard cycle per guidance from GEMA. Based on a 20-year hazard cycle there is a 276% chance of an annual wildfire due to a lightning strike or statistically the county can expect 4 wildfires as a result of lightning annually.

The GMIS has 15 critical facilities with a hazard score of four (high), 78 with a hazards score of three (moderate), 12 with a hazard score of 2 (low) and four with a hazard score of one (very low probability). The remaining 22 critical facilities have a hazard score of zero. The 109 critical facilities with a wildfire hazard score greater than zero have an estimated potential loss of more than $307 million. The loss for all critical facilities is $393,112,262. According to FEMA Worksheet #3a there are 40,626 structures/properties with a population of 16,930 with a value of slightly less than $1.3 billion worth of assets countywide.

Jefferon County Wildfire by number of Acres										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1957	413.41	0	11	67.1	194.21	130.3	0	0	0	10.8
1958	533.8	10.14	97.12	115.81	56.83	143.84	81.72	0	0	28.34
1959	443.74	0	5	131.61	21.89	179.95	3.79	0	0	101.5
1960	543.54	19.04	0.92	41.78	100.2	236.32	0.67	0	0	144.61
1961	420.3	0	20.77	38.62	59.8	290.24	0.81	1.89	0	8.17
1962	412.22	16.59	12.05	0	78.88	268.38	36.32	0	0	0
1963	201.7	0	13.48	0	67.97	107.82	0	12.43	0	0
1964	218.27	0	39.95	0	95.85	57.64	24.83	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	747.03	0	1.24	0	159.08	117.98	461.23	7.5	0	0
1967	315.77	0	12.33	0	60.8	161.7	48.16	32.78	0	0
1968	262.85	7.91	11.26	0	27.02	126.85	82.25	7.56	0	0
1969	259.42	1.38	28.18	0	62.5	126.13	16.24	24.99	0	0
1970	139.94	28.19	12.45	9.27	15.67	70.51	1.47	2.38	0	0
1971	102.15	0	0.94	0	13.31	59.94	25.69	2.27	0	0
1972	140.04	4.66	2.92	0	41.36	56.16	32.56	2.38	0	0
1973	237.89	4.76	1.35	0	83.68	131.67	12.87	3.56	0	0
1974	222.75	8.21	13.63	0	48.98	125.09	20.92	5.92	0	0
1975	130.91	33.32	11.87	0	11.83	45.55	22.13	4.51	0.14	1.56
1976	205.18	9.48	21.72	0	9.67	143.9	19.9	0	0.51	0
1977	232.25	63.11	69.93	0	34.14	45.11	2.31	0	11.22	6.43
1978	217.14	2.34	20.38	0	8.18	172.47	2.26	0	0	11.51
1979	161.73	0	1.78	0.07	20.91	129.41	9.56	0	0	0
1980	392.81	3.42	5.27	0.13	39.39	336.93	5.22	0	0	2.45
1981	210.83	5.16	5.09	0	8.04	145.57	15.88	0	2.02	29.07
1982	92.61	0	44.51	0	11.66	17.11	2.71	0	0	16.62
1983	183.74	15.41	35.04	0.93	1.52	123.79	1.35	0	0	5.7
1984	183.64	0	55.92	0	19.51	32.2	0	0	0	76.01
1985	346.92	62.6	4.35	0	69.15	105.26	11.64	64.19	1.12	28.61
1986	161.64	47.07	9.58	0.84	31.27	48.48	0	0	7.88	16.52
1987	158.35	36.48	9.4	0	50.46	36.05	0.26	0.45	0	25.25

Jefferon County Wildfire by number of Acres										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1988	177.73	23.7	0	0	9.32	129.83	2.94	0	5.3	6.64
1989	99.14	0	0	0	39.55	55.3	0	0	0.45	3.84
1990	186.05	37.45	0.12	0	36.95	47.92	0.83	0	5.58	57.2
1991	295.07	0	0.79	0	12.65	114.22	82.22	1.77	0	83.42
1992	182.2	1.74	0	0	0	29.98	143.91	0	0	6.57
1993	372.05	196.21	12.26	0	5.76	147.6	0	0	1.81	8.41
1994	143.15	47.05	36.19	0	13.49	43.24	0.34	0	2.08	0.76
1995	109.18	21.86	0	0	26.32	37.78	0	0	6.13	17.09
1996	173.59	0.79	8.18	0	16.76	69.27	1.89	0	0	76.7
1997	202.84	0.66	20.62	0	32.79	100.43	20.09	0	0	28.25
1998	181.56	33.69	10.3	0	12.58	119.54	4.64	0	0	0.81
1999	241.71	35.06	2.05	0	74.8	105.67	18.94	0	1.5	3.69
1987	158.35	36.48	9.4	0	50.46	36.05	0.26	0.45	0	25.25
1988	177.73	23.7	0	0	9.32	129.83	2.94	0	5.3	6.64
1989	99.14	0	0	0	38.43	55.3	1.12	0	0.45	3.84
1990	186.05	37.45	0.12	0	36.95	47.92	25.28	0	5.58	32.75
1991	295.07	0	0.79	0	12.65	114.22	82.22	1.77	0	83.42
1992	182.2	1.74	0	0	0	29.98	143.91	0	0	6.57
1993	372.05	196.21	12.26	0	5.76	147.6	0.03	0	1.81	8.38
1994	143.15	47.05	36.19	0	12.48	43.24	1.59	0	1.84	0.76
1995	109.18	21.86	0	0	26.32	37.78	0	0	6.13	17.09
1996	173.59	0.79	8.18	0	16.76	69.27	1.89	0	0	76.7
1997	202.84	0.66	20.62	0	32.79	100.43	20.09	0	0	28.25
1998	181.56	33.69	10.3	0	12.58	119.54	4.64	0	0	0.81
1999	326.61	61.1	4.96	0.6	78.48	126.41	47.12	0	0.68	7.26
2000	262.55	24.48	108.05	0	3.31	93.52	0.1	0	0.56	32.53
2001	221.93	64.91	38.52	0	3.77	100.06	0	0	4.7	9.97
2002	333.93	55.29	22.82	11.22	10.18	79.59	5.32	0	0.11	149.4
2003	37.01	3.1	2.41	0	0	29.09	0	0	0	2.41
2004	245.47	19.13	35.05	0	1.4	182.92	0.15	0	3.72	3.1
2005	171.89	0.67	42.59	0	0	86.36	0	9.3	2.36	30.61

Jefferon County Wildfire by number of Acres										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
2006	233.34	4.2	98	1.56	5.88	93.72	0.01	0.22	0.9	28.85
2007	223.88	19.86	42.55	2.91	0	60.81	40.12	0.37	1.67	55.59
2008	234.22	7.66	30.94	0	3.33	178.97	0	0	0.97	12.35
2009	137.13	0.74	9.16	0	0	123.47	0.52	0	0.03	3.21
2010	165.06	9.01	6.26	20.58	0	122.42	0.2	0	1.5	5.09
2011	266.61	34.18	96.63	0.52	0.02	106.03	0	1.9	4.77	22.56
2012	99.05	23.06	2.17	0	0	45.34	0	4.13	0.58	23.77
2013	100.8	0	7.65	0.01	0	69.44	0.79	7.64	2.3	12.97
2014	233.51	2.79	56.59	5.26	0	100.97	1.7	0	0.4	65.8
2015	112.54	0	7.31	0	0	56.54	0	0	0	48.69
2016	87.24	16.57	8.2	0	0	19.06	0	1.99	0.28	41.14
2017	154.84	0.51	0	1.25	0	147.01	0	0	0.61	5.46
2018	126.09	18.6	0.75	0.5	0	81.3	0	0	0	24.94
2019	318.51	127.5	5.63	0	3.3	146.68	0	8.82	0	26.58
2020	33.41	7.3	0.51	3.8	0	13.8	0.25	0.2	0.1	7.45
2021	138.49	0	56.78	0	0	77.91	2.1	0	1.1	0.6
2022	74.4	0	26.66	0.87	0	29.06	0	0	9.03	8.78
	17276.26	1677.77								

Jefferson County Wildfire by Number										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1957	41	0	1	6	8	23	0	0	0	3
1958	44	1	3	12	10	10	5	0	0	3
1959	35	0	1	3	5	18	2	0	0	6
1960	55	1	2	4	12	28	1	0	0	7
1961	60	0	3	8	11	32	1	1	0	4
1962	49	5	3	0	16	24	1	0	0	0
1963	47	0	4	0	18	22	0	3	0	0
1964	40	0	5	0	14	20	1	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	76	0	2	0	17	28	27	2	0	0
1967	54	0	6	0	14	18	15	1	0	0
1968	53	1	5	0	7	30	7	3	0	0
1969	51	2	4	0	14	23	3	5	0	0
1970	39	4	3	1	4	24	1	2	0	0
1971	29	0	1	0	3	18	3	4	0	0
1972	45	2	2	0	10	24	5	2	0	0
1973	53	1	2	0	10	26	12	2	0	0
1974	59	1	5	0	7	32	8	6	0	0
1975	45	1	5	0	5	22	8	1	2	1
1976	61	3	11	0	3	37	5	0	2	0
1977	51	5	10	0	9	21	1	0	1	4
1978	54	2	9	0	6	31	3	0	0	3
1979	43	0	3	1	10	22	7	0	0	0
1980	46	2	4	1	9	27	1	0	0	2
1981	61	1	6	0	5	33	8	0	2	6
1982	24	0	4	0	5	11	1	0	0	3
1983	57	3	29	1	3	17	1	0	0	3
1984	43	0	9	0	9	22	0	0	0	3
1985	58	2	2	0	13	30	2	4	1	4
1986	44	10	5	1	7	12	0	0	2	7
1987	55	8	2	0	13	22	1	1	0	8

Jefferson County Wildfire by Number										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1988	39	2	0	0	4	25	1	0	3	4
1989	24	0	0	0	6	14	1	0	1	2
1990	51	4	1	0	9	19	2	0	3	13
1991	35	0	1	0	2	22	5	3	0	2
1992	20	1	0	0	0	11	4	0	0	4
1993	62	15	6	0	4	25	1	0	3	8
1994	33	1	2	0	5	18	4	0	1	2
1995	39	5	0	0	6	20	0	0	2	6
1996	44	3	4	0	7	26	1	0	0	3
1997	40	1	4	0	3	23	4	0	0	5
1998	34	4	4	0	6	17	2	0	0	1
1999	69	3	3	1	13	28	15	0	1	5
2000	34	5	6	0	2	12	1	0	1	7
2001	39	2	5	0	5	20	0	0	2	5
2002	56	14	4	1	3	15	3	0	1	15
2003	13	1	1	0	0	9	0	0	0	2
2004	69	2	13	0	1	41	1	0	3	8
2005	72	3	26	0	0	28	0	1	2	12
2006	101	5	23	2	4	47	1	1	6	12
2007	92	7	19	2	0	38	9	1	3	13
2008	74	6	18	0	2	38	0	0	3	7
2009	41	4	6	0	0	26	1	0	1	3
2010	60	4	10	3	0	28	1	0	5	9
2011	112	13	17	2	2	42	0	1	13	22
2012	48	8	5	0	0	20	0	2	3	10
2013	41	0	5	1	0	26	1	2	1	5
2014	71	2	6	2	0	36	1	0	2	22
2015	30	0	3	0	0	16	0	0	0	11
2016	45	2	6	0	0	18	0	4	2	13
2017	28	2	0	1	0	16	0	0	1	8
2018	23	2	2	1	0	12	0	0	0	6

Jefferson County Wildfire by Number										
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
2019	28	3	3	0	1	11	0	4	0	6
2020	16	1	2	1	0	6	1	1	1	3
2021	20	0	2	0	0	12	1	0	1	4
2022	29	0	7	1	0	16	0	0	1	4
	3104	180								

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Avera city	Avera City Hall	3	312500	2024	1000	200000	2024	0	Government, Government,	Essential	1	0
Avera city	Avera Fire Station	3	100000	2024	4250	200000	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	0	0
Avera city	Avera Water Tank	3	325000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	0
			$ 737,500.00			$ 400,000.00						
Bartow town	Bartow Wastewater Sewage Effluent Pump Station	1	$ 63,700.00	2024	100	$ -	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow wastewater Lift Station #1	2	70300	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Wastewater Lift Station #2	2	71400	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Bartow town	Bartow Wastewater Sewage Holding Pond	2	46400	2024	13509		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Wastewater Sewage Treatment Pond	2	50400	2024	10307	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			$ 238,500.00		24016							
Bartow town	Bartow City Hall	3	209300	2024	1920	53500	2024	0	Government, Government, Private, Private	Economic Assets, Essential, Important, Lifeline	3	1
Bartow town	Bartow Museum	3	826847	2024	2450		2024	0	Government, Government, Water/Sewer, Water/Sewer	Historic Consideration	1	0
Bartow town	Bartow Wastewater Lift Station #4	3	60500	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Wastewater Lift Station #5	3	90200	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Bartow town	Bartow Water Well #2	3	119700	2024	275	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			$ 1,306,547.00			$ 53,500.00						
Bartow town	Bartow Community Center & Auditorium	4	1342200	2024	11232	250000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets	1	1
Bartow town	Bartow Fire Dept & Communications Bldg	4	17100	2024	64	60000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline, Special Consideration	0	0
Bartow town	Bartow Fire Dept and Emergency Shelter	4	330630	2024	7500	38500	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets, Essential, Important, Lifeline	1	1
Bartow town	Bartow Wastewater Lift Station #3	4	69000	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
Bartow town	Bartow Water Tower	4	393000	2024	100	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Bartow town	Bartow Water Well	4	111800	2024	275	0	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Important, Lifeline	0	0
			$ 2,263,730.00			$ 348,500.00						
Jefferson County	Hillcrest Station	0	45700	2024	5068		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	
Jefferson County	Jefferson County High School	0	55000000	2024	179142	2200000	2024	0	Medical, Medical, Hospital, Hospital	Economic Assets, Essential, Vulnerable Population	937	0
Jefferson County	Jefferson County Leisure Center	0	586170	2024	4924	86000	2024	0	Government, Government, Non-Profit, Non-Profit	Essential, Special Consideration, Vulnerable Population	75	0
Jefferson County	National Guard Equipment Shed 1	0	292900	2024			2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	Oconee Fall Line Technical College	0	1930505	2024	10000	7500	2024	0	Education, Education, VoTech, VoTech	Economic Assets, Important, Vulnerable Population	75	75

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Tax Commissioners Office	0	825500	2024		323000	2024	0	Government, Government, Government Offices, Government Offices	Essential	20	
	6		$ 58,680,775.00			$ 2,616,500.00					0	
											0	
Jefferson County	JEFFERSON CO-US 1 (AVERA RD) (SL)	1	$ 1,500,000.00	2024	########	5,233,000.00	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important		
Jefferson County	Jefferson County Middle School	2	2100000	2024			2024	0	Education, Education, K - 12, K - 12	Essential	500	
Jefferson County	Lions Club Evac. Center	2	12000	2024	1000		2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Historic Consideration	8	
			$ 2,112,000.00		1,000.00							
Jefferson County	1st Baptist Church Evac Center	3	3500000	2024	45075		2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Important, Special Consideration	0	0
Jefferson County	Carver Elementary	3	12750000	2024	6600	510000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	0	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Choices Academy	3	15250000	2024			2024	0	Education, Education, K - 12, K - 12		250	
Jefferson County	Hardeman Building (Swann)	3	250000	2024	8278	17000	2024	0	Medical, Medical, EMS, EMS	Historic Consideration, Important, Special Consideration	1	0
Jefferson County	JC Fire TowerShop/Supply Building	3	241236	2024	4072	9800	2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential	4	
Jefferson County	JC Building Department	3	51090	2024	1000	17500	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important	3	
Jefferson County	JC Radio Tower	3	27885	2024	100	8000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Jefferson County	Jefferson County Library	3	66085	2024	5000	848000	2024	0	Education, Education, Library, Library	Important	10	0
Jefferson County	Jefferson Co. Correction Facility	3	5261231	2024	42446	833800	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	200	200

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Jefferson Co. Law Enforcement Center	3	8041785	2024	39892	1139700	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	225	225
Jefferson County	Jefferson County Armory Transit EMA	3	2380171	2024	14040	724500	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	10	4
Jefferson County	Jefferson County Bus Shop	3	750000	2024	4920	140000	2024	0	Medical, Medical, Hospital, Hospital	Important	5	0
Jefferson County	Jefferson County Chamber of Commerce/Murphy House	3	361433	2024	3281	122700	2024	0	Law Enforcement, Law Enforcement, Jails, Jails	Historic Consideration, Important	8	0
Jefferson County	Jefferson County Commissioners Office/Long House	3	339300	2024	3080	110300	2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential	30	0
Jefferson County	Jefferson County Courthouse	3	5147708	2024	6065	125000	2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Historic Consideration	25	

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Jefferson County Health Dept	3	841815	2024	6341	191700	2024	0	Education, Education, Private, Private	Essential	20	
Jefferson County	Jefferson County Landfill (New)	3	1062166	2024	15000	363200	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Hazardous Materials, Important	6	
Jefferson County	Jefferson County Magistrate	3	24001242	2024	22000	8400	2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential	20	0
Jefferson County	Jefferson County Office Park	3	23500000	2024	81642	940000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	45	0
Jefferson County	Jefferson Hospital	3	97000000	2024	76000		2024	0	Medical, Medical, Hospital, Hospital	Essential, Lifeline, Vulnerable Population	200	150
Jefferson County	Louisville Academy Elementary	3	15250000	2024	25047	610000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Economic Assets, Essential, Vulnerable Population	568	0
Jefferson County	Louisville EMS/Morgue	3	600000	2024		300000	2024	0	Emergency Services, Emergency Services, EMS, EMS	Essential	30	10
Jefferson County	Matthews Station	3	47500	2024	2052		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	National Guard Equipment Shed 2	3	338500	2024			2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	National Guard Garage (Road Dept)	3	461800	2024		209000	2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	National Guard Shop	3	470400	2024		470400	2024	0	Emergency Services, Emergency Services, EMA, EMA	Essential		
Jefferson County	Ogeechee Service Center	3	900000	2024	10650		2024	0	Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, High Potential Loss, Important, Vulnerable Population	50	0
Jefferson County	Old County Jail/IT/Purchasing	3	500000	2024	7742	28000	2024	0	Law Enforcement, Law Enforcement, Jails, Jails	Essential, Historic Consideration	1	0
Jefferson County	Physicians Health Group Wrens	3	1015350	2024	5802	500000	2024	0	Education, Education, Private, Private	Essential, Important	20	
Jefferson County	Wrens Elementary	3	20500000	2024	78216	820000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer		637	0

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Jefferson County	Wrens Middle School (vacant)	3	17000000	2024	59902	680000	2024	0	NGO, NGO, Water/Sewer, Water/Sewer	Essential, Vulnerable Population	0	0
	31		$ 257,906,697.00		574243	$ 9,727,000.00					0	
											0	
Jefferson County	JC Recreation Dept	4	$ 1,300,621.00	2024	1867	$ 29,600.00	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important	4	
Louisville city	Grange Rd water Plant	0	5000000	2024				0	Government, Government, Water/Sewer, Water/Sewer			
Louisville city	Highway 24 Lift Station	0	150000	2016	1000			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville City Airport	0	543665	2024	3200			0	NGO, NGO, Transportation, Transportation	Important, Transportation		
Louisville city	Louisville Tech Lift Station	0	125000	2024	50		2024	1E+05	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville WPCP	0	15000000	2024				0	Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline	2	

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Louisville city	Pumping Station (2nd Street)	0	0	2024			2024	0	Emergency Services, Emergency Services, Water/Sewer, Water/Sewer	Essential		
	6		$ 20,818,665.00									
Louisville city	Louisville City WaterTower	1	$ 950,000.00	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Special Consideration		
Louisville city	Booster pump station	2	175000	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville Lift Station at HS	2	150000	2024	50		2024	2E+05	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Louisville city	Louisville Water Tower	2	712500	2024	100			0	Government, Government, Water/Sewer, Water/Sewer			
			$ 1,037,500.00									

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Louisville city	American Renal Assoc NCA Dialysis Center	3	1261225	2024	7207			0	Medical, Medical, Private, Private	Important, Vulnerable Population	10	
Louisville city	City of Louisville Water Tank	3	500000	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Important		
Louisville city	Louisvill City Hall	3	550000	2024	7200	350,000.00	2024	0	Government, Government, Private, Private	Essential	10	4
Louisville city	Louisville Fire Station	3	750000	2024	7200	850,000.00	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	4	
Louisville city	Louisville Water Works	3	4425000	2024	2400			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		
Louisville city	Market House	3	100000	2024	600			0	Government, Government, Water/Sewer, Water/Sewer	Historic Consideration, Special Consideration		
Louisville city	Physicians Health Group Louisville	3	2400000	2024	9560	500,000.00	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important	20	

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Louisville city	Pumping Station (Jewel Lane)	3	200000	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Louisville city	US # 1 Bypass Lift Station	3	150000	2024	100			0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
	9		$ 10,336,225.00			$ 1,700,000.00						
Louisville city	OCI Nursing Home	4	$ 5,000,000.00	2024	45062			0	Education, Education, Library, Library	Vulnerable Population	225	200
Stapleton city	Stapleton City Hall & Emergency Shelter	3	508109	2024	3000	74000	2024	2E+05	Government, Government, Private, Private	Essential	2	
Stapleton city	Stapleton Fire house & Emergency Shelter	3	509327	2024	6000	700000	2024	1E+05	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Important, Lifeline	2	
Stapleton city	Stapleton Water Tank #1	3	771603	2024	100		2024	2E+05	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Stapleton city	Stapleton Water Tank #2	3	795253	2024	100		2024	2E+05	Government, Government, Water/Sewer, Water/Sewer	Essential, Important, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
	4		$ 2,584,292.00			$ 774,000.00						
Wadley city	Physicans Health Group Wadley	3	405650	2024	2318	250000	2024	0	Education, Education, Private, Private	Important	10	
Wadley city	Wadley City Hall	3	1500000	2024	3645	250000	2024	0	Government, Government, Private, Private	Economic Assets, Essential	5	0
Wadley city	Wadley Lift Station #1	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #2	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #3	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #4	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wadley city	Wadley Lift Station #5	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer			
Wadley city	Wadley Lift Station #6	3	20690	2024			2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wadley city	Wadley Police Department	3	900000	2024		200000	2024	0	Law Enforcement, Law Enforcement, Police, Police	Essential	6	2
Wadley city	Wadley Water Tower #2	3	500000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	0	
	10		$ 3,429,790.00			$ 700,000.00						
Wadley city	Glendale Nursing Home	4	1610863	2024	26500	750000	2026	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Important, Special Consideration, Vulnerable Population	120	90
Wadley city	Wadley Community Complex	4	800000	2024	6000		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Historic Consideration, Important		
Wadley city	Wadley Elevated Water Tank	4	650000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wadley city	Wadley Fire Station	4	300000	2024		500000	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential		
Wadley city	Wadley Gym	4	400000	2024	1200		2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Historic Consideration, Important		
Wadley city	Wadley Public Library	4	510000	2024	3114	538200	2024	0	Education, Education, Library, Library	Economic Assets, Important	5	5
Wadley city	Wadley Well House	4	600000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
	7		4,870,863.00			1,788,200.00						
Wrens city	Calcine Meter Set	0	225000	2024	100		2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Wrens city	City of Wrens Airport	0	504388	2024				0	Emergency Services, Emergency Services, EMA, EMA	Essential		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Family Y/ City of Wrens Recreation	0	2080755	2024				0	Education, Education, K - 12, K - 12	Vulnerable Population		
Wrens city	Highway 88 Lift Station	0	350000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	IMERYS Meter Set	0	300000	2024	10		2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials		
Wrens city	KA-MIN #1	0	250000	2024	10		2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Important, Lifeline		
Wrens city	Ka-Min #2	0	250000	2024	1955		2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Hazardous Materials, Lifeline		
Wrens city	Southern Tap #2	0	750000	2024	50		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Hazardous Materials, Lifeline		

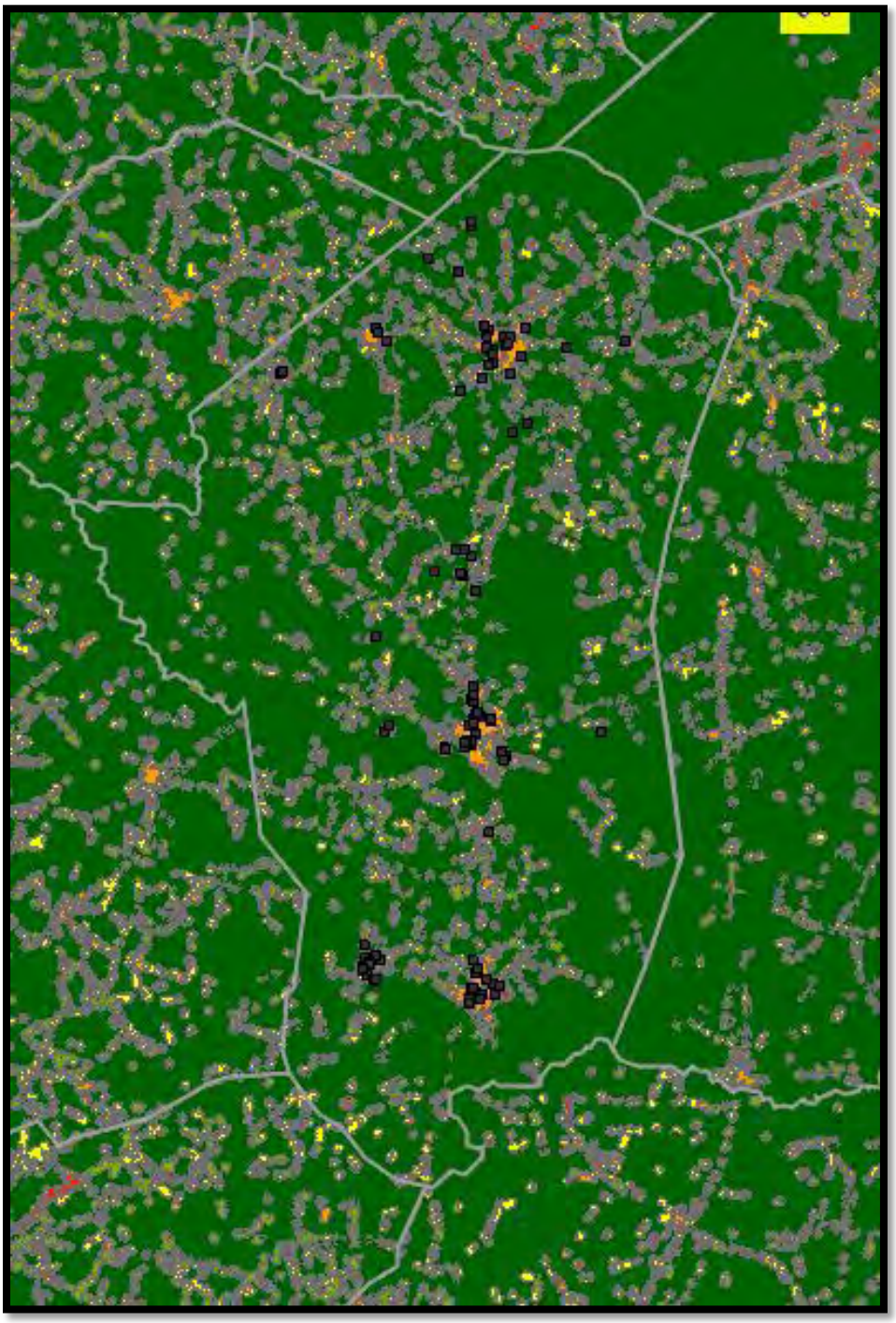
Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Stephens St Lift Station	0	350000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens City Hall	0	1125000	2024	7500	150,000.00	2024	0	Government, Government, Private, Private	Economic Assets, Essential	10	
	10		$ 6,185,143.00			$ 150,000.00						
Wrens city	King Mill Well (Well E)	1	$ 750,000.00	2024	50		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Bushy Creek Lift Station	2	400000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Water Pumping Station	2	300000	2024	144	50000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens city	Wrens Water Tank	2	625000	2024	200		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
	3		$ 1,325,000.00			$ 50,000.00						

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Border Regulator Station	3	100000	2024	100		2024	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, High Potential Loss, Lifeline	#REF!	
Wrens city	City of Wrens Wastewater Treatment Plant	3	180307	2024				0	Government, Government, Water/Sewer, Water/Sewer	Essential		
Wrens city	Gold Cross and Food Bank Development Center	3	96907	2024				0	Emergency Services, Emergency Services, EMS, EMS	Economic Assets		
Wrens city	Southern Tap #1	3	750000	2024	50	2024		0	Law Enforcement, Law Enforcement, Court House, Court House	Essential, Hazardous Materials, Lifeline		
Wrens city	Water Booster Station	3	500000	2024	1000		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Waynesboro Highway Lift Station	3	400000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	West Walker St Lift Station	3	300000	2024	100		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Community Center	3	500000	2024	3400	50000	2024	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Economic Assets	20	
Wrens city	Wrens Medical Center	3	875000	2024	400	200000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Important, Vulnerable Population	20	
Wrens city	Wrens Old Library Building	3	625000	2024	3000	549200	2024	0	Education, Education, Library, Library	Economic Assets, Historic Consideration, Important		
Wrens city	Wrens Sewage Treatment Plant	3	3250000	2024	1400	125000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Hazardous Materials		
Wrens city	Wrens Water Pumping Station	3	75000	2024	800	25000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
Wrens city	Wrens Water Pumping Station	3	125000	2024	800	25000	2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		

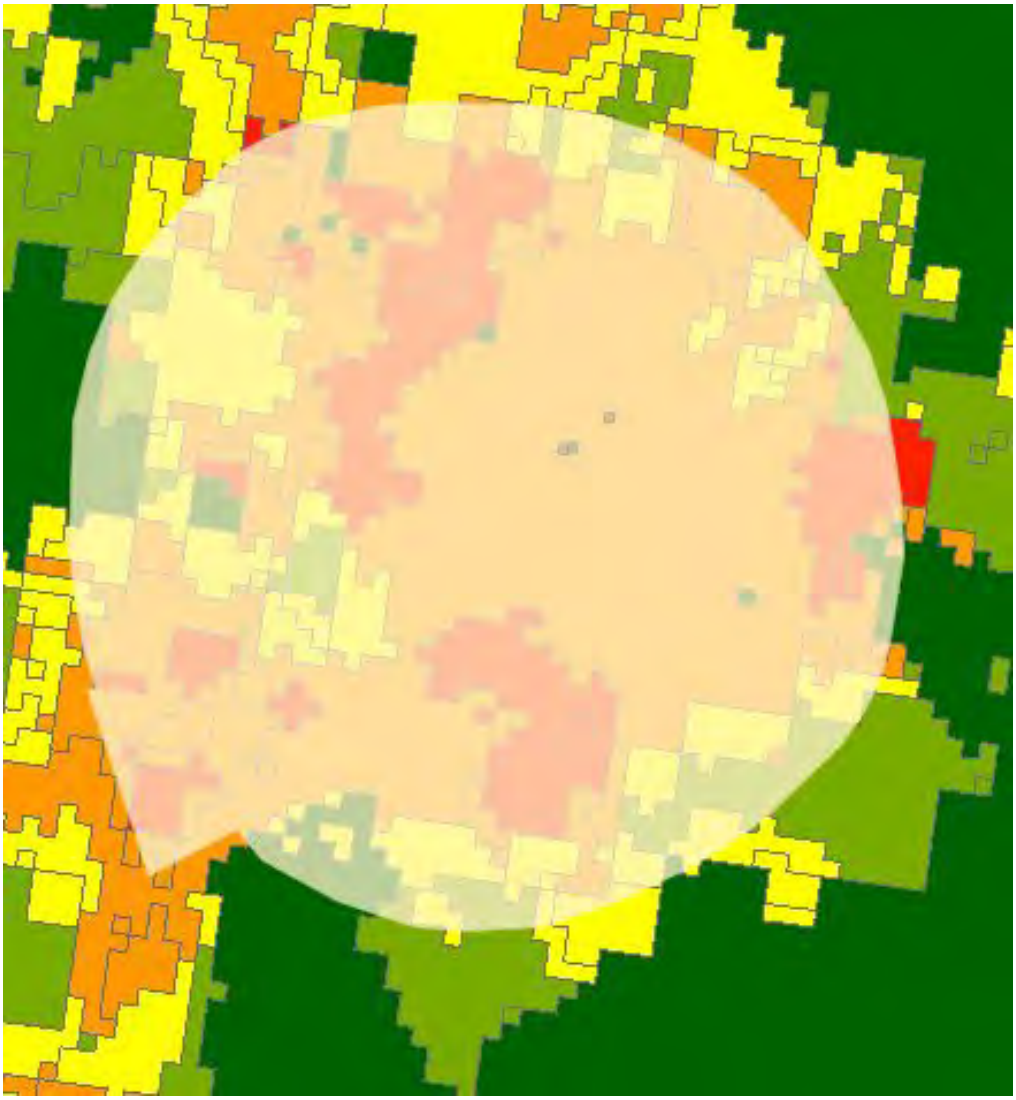
Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	onal Use value	Facility type	Risk	Daytime	Nighttime
Wrens city	Wrens Water Tank	3	625000	2024	150		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Water Tank	3	625000	2024	200		2024	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline		
Wrens city	Wrens Water Tank	3	687500	2024	250		2024	0	Government, Government, Water/Sewer, Water/Sewer	Economic Assets, Essential, Lifeline		
	16		$ 9,714,714.00		11750	$ 976,224.00						

JEFFERSON COUNTY GMIS WILDFIRE RISK MAP



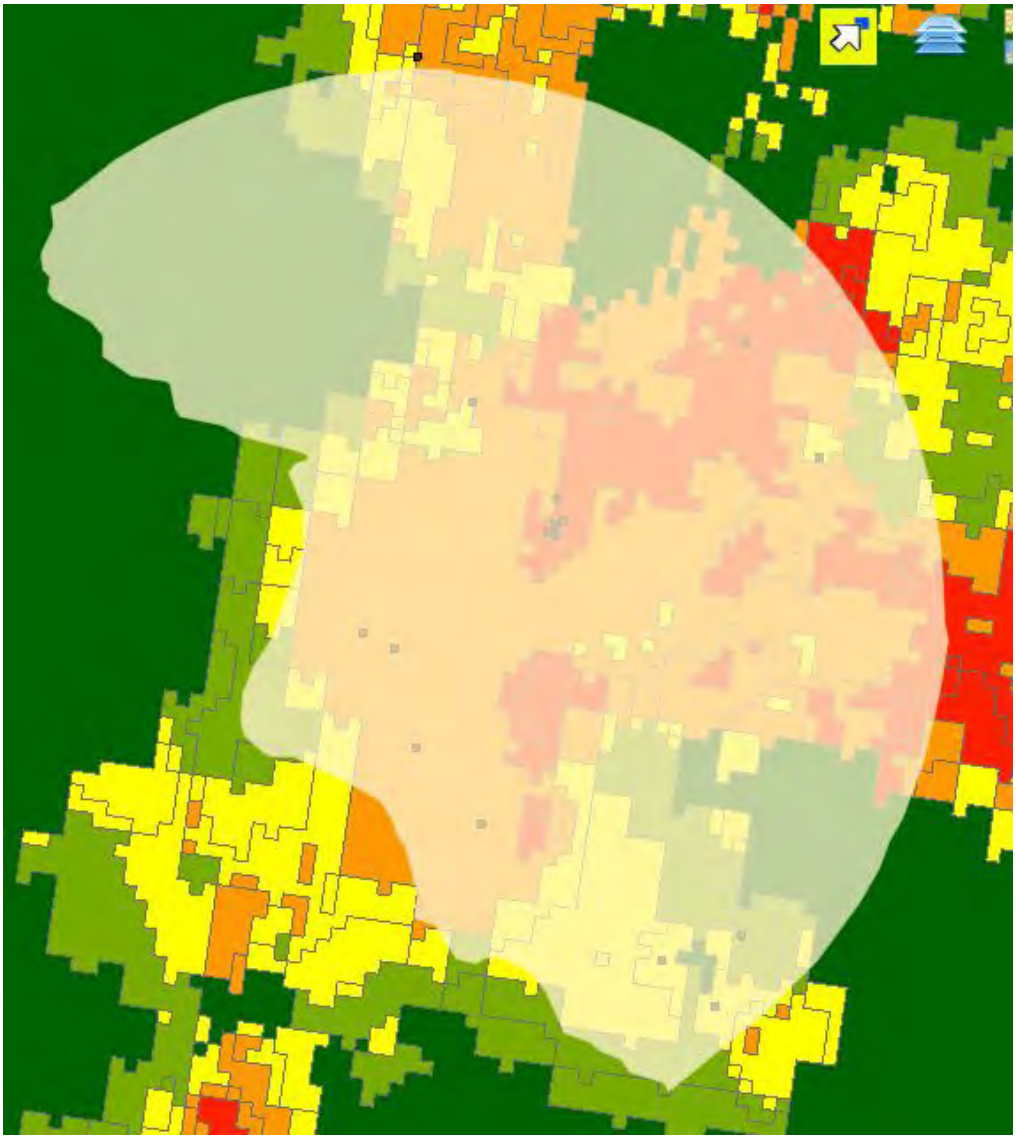
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

AVERA GMIS WILDFIRE RISK MAP



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

BARTOW GMIS WILDFIRE RISK MAP



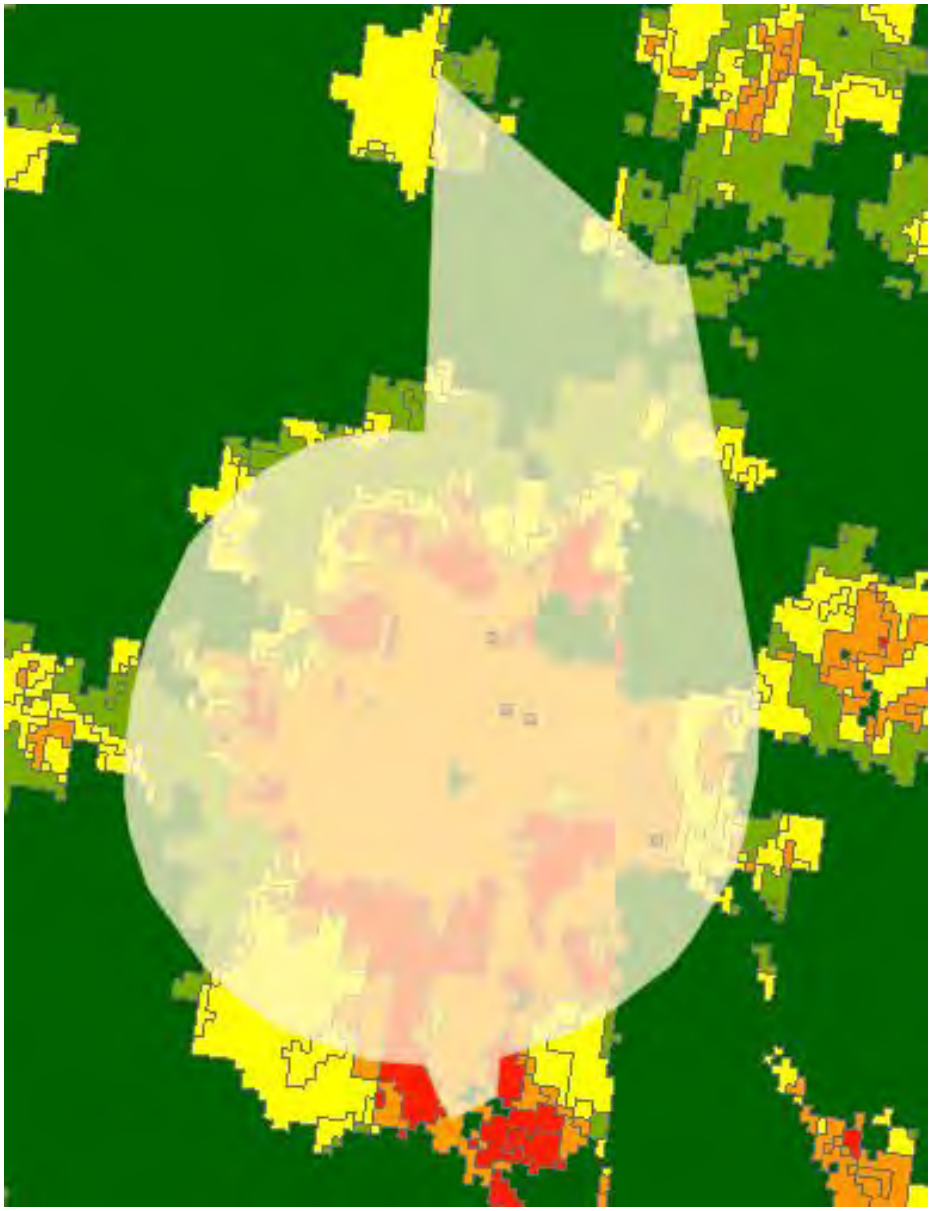
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

LOUISVILLE GMIS WILDFIRE RISK MAP

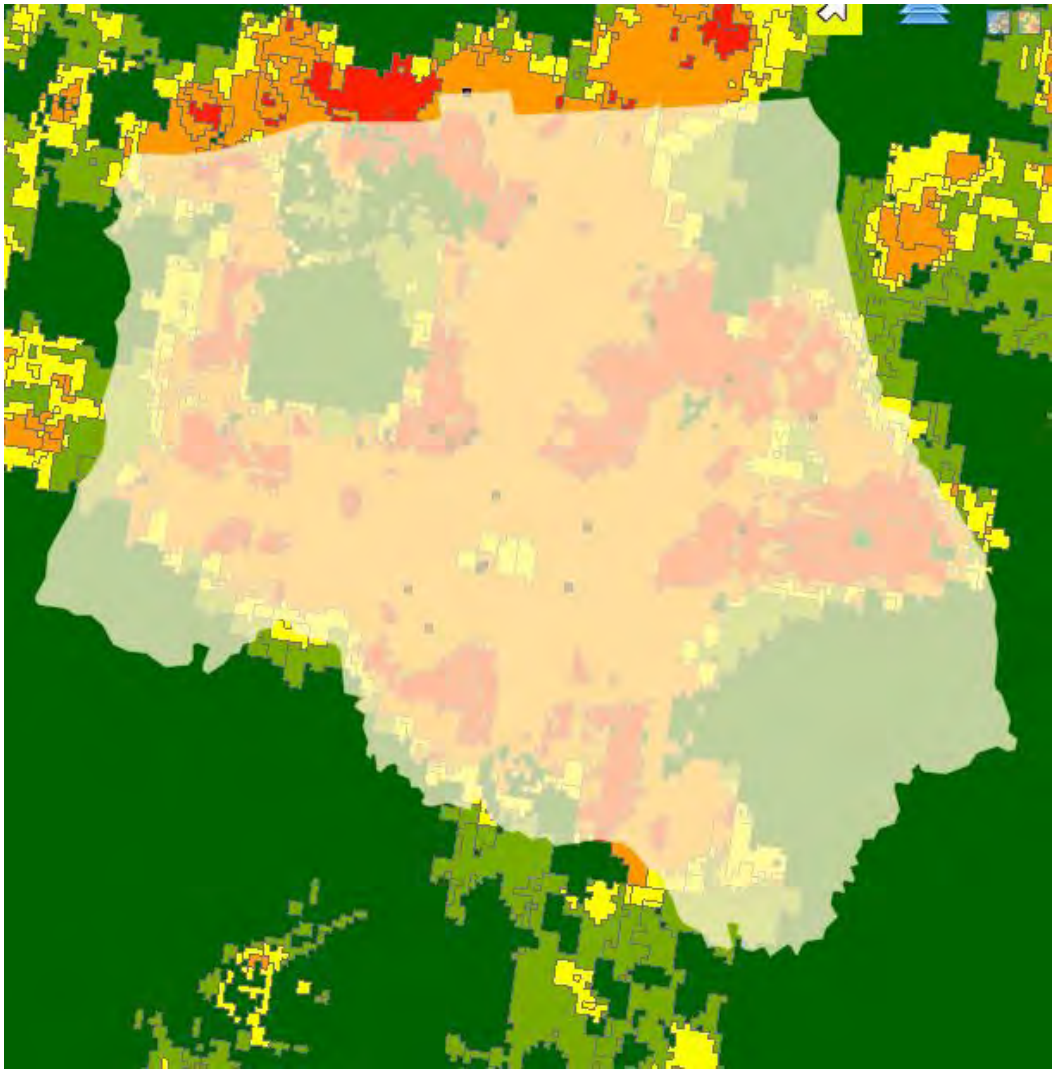
Score	Description
4	High
3	Moderate
2	Low
1	Very Low
0	No Houses
	Agriculture
	Water
	City

STAPLETON GMIS WILDFIRE RISK MAP

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



WADLEY GMIS WILDFIRE RISK MAP



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

WRENS GMIS WILDFIRE RISK MAP

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

Tornadoes

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 weather phenomena and can strike at any time of the year if essential conditions are present. The damage from a tornado is a result of the high wind velocity and wind-blown debris.

Tornados do not touch down as 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 54 years of historical data, there have been 15 reported tornados in the planning area. The highest magnitude reported was an EF3. Reported property and crop damages for all 15 events totaled more than $9.5 Million with 12 injuries. Tornados tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. There is a 28 percent chance of a tornado event for the County as a whole every three and half years.

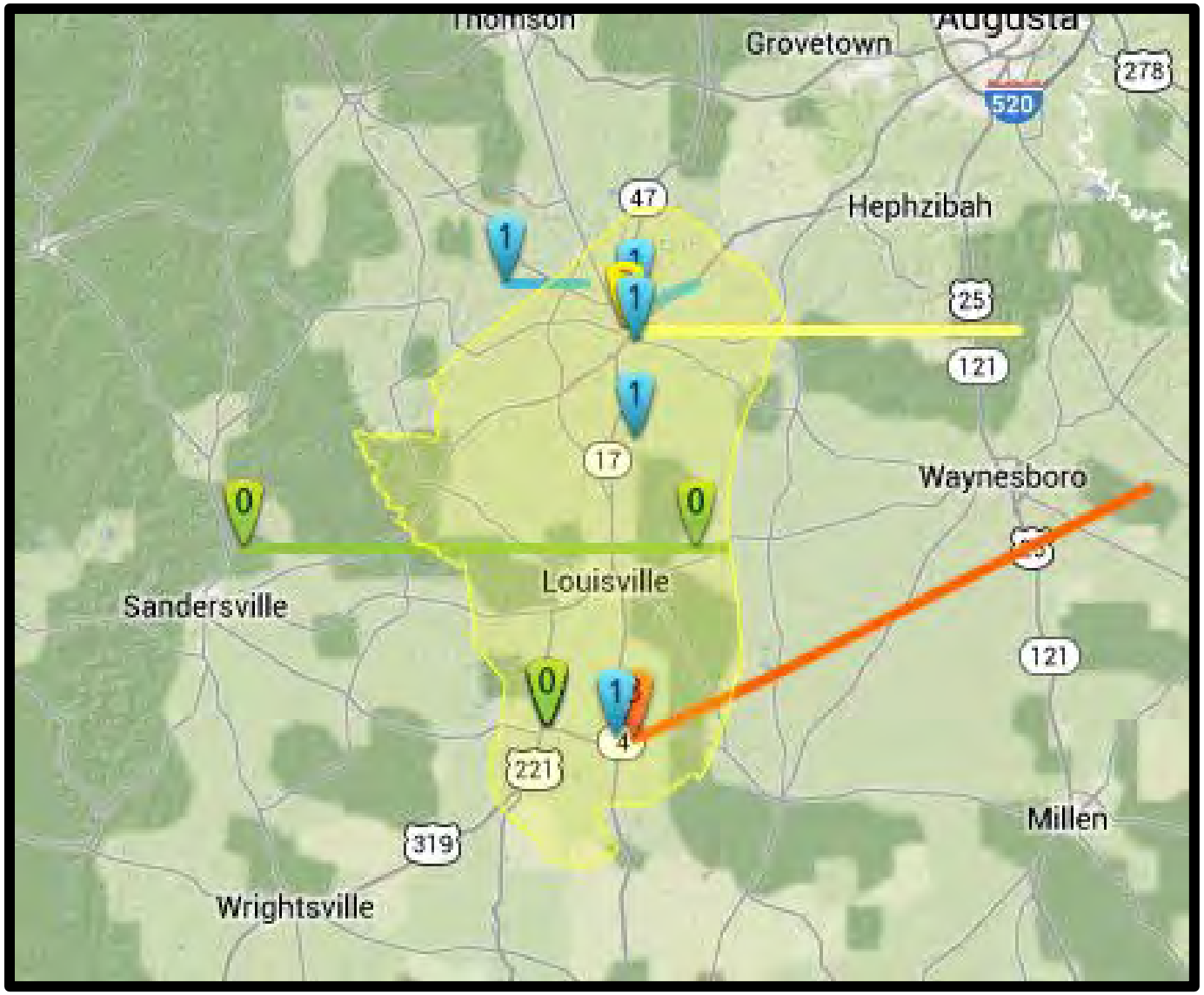
EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
9996441		7/22/1970	Tornado	F0	0	0	$-	
9994549		7/19/1971	Tornado	F1	0	0	$25,000.00	
9995631		1/13/1972	Tornado	F3	0	2	$2,500,000.00	
9994567		3/18/1981	Tornado	F1	0	1	$25,000.00	
9995917		7/25/1981	Tornado	F1	0	0	$250,000.00	
9994881		12/4/1983	Tornado	F0	0	2	$30.00	
9993864		10/1/1989	Tornado	F1	0	2	$25,000.00	
5547389	WRENS	3/7/1996	Tornado	F1	0	5	$1,000,000.00	A tornado destroyed 2 brick homes and 7 mobile homes. 15 other homes were heavily damaged and 10 others had minor damage. The path and duration of the tornado was estimated. There were intermittent touchdowns.
5560037	BARTOW	6/15/1996	Tornado	F0	0	0	$10,000.00	A possible tornado touched down briefly on Baldee Road between Bartow and Louisville. It damaged a cattle barn and power poles. A tree was downed and there was debris over the road. The length and width are estimated.
89334	WRENS	3/15/2008	Tornado	EF2	0	0	$500,000.00	The pattern that began to evolve on March 14th continued and intensified on March 15th. A stationary front remained draped across north Georgia from near Atlanta to Athens. South of this front, the air mass was becoming increasingly warm, moist and unstable. Meanwhile, aloft, a low amplitude, yet vigorous short wave embedded within a fast zonal flow, was tracking rapidly eastward from the mid south into the southeast. Strong shear and high helicity combined with the unstable air mass and the frontal boundary to allow repeated severe thunderstorms to develop and track eastward along the boundary across north Georgia. The activity began early in the day as a complex of thunderstorms moved into the area from Alabama and continued until nearly midnight. As the day progressed, especially during the afternoon, the development of the activity gradually progressed further south and by midnight had reached the south and southeast parts of the state. Numerous severe thunderstorms and tornadic supercells were observed throughout the day.||Historical records indicate that this was one of the most significant severe weather days for the Peachtree City Weather Forecast Office with more events and warnings than had been observed since May 2003.

EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
102218	GRANGE	5/11/2008	Tornado	EF0	0	0	$5,000,000.00	A stationary front was draped across north Georgia early on May 10th with an active northwest flow aloft. Meanwhile...a vigorous short wave aloft was approaching the area from the southern plains. The stationary front provided the focus for two rounds of showers and thunderstorms, one early in the morning on the 10th and another in the afternoon. The activity tracked east-southeast with the upper flow aloft, mainly across north Georgia during the early morning and across central Georgia during the afternoon. An isolated strong supercell also tracked across the southern part of central Georgia during the evening. After a lull of convective activity for about four hours, intense multicell thunderstorms tracked into the area from Alabama after midnight and before dawn on the 11th. As these thunderstorms tracked across west central and central Georgia, 15 tornadoes were identified by subsequent surveys making this the most significant tornado outbreak to affect the area since the Katrina-associated tornadoes on August 29, 2005. Millions of dollars of property damage were reported as many homes were destroyed from these tornadoes from the western and southern suburbs of Atlanta southeastward across Macon, Dublin, and other counties in east central and southeast Georgia. Many of these counties were eligible for disaster assistance from the federal government.||In addition to the tornadoes and thunderstorm winds that caused extensive damage in dozens of counties across north and central Georgia during the early morning hours of May 11th, strong gradient winds developed on the back side of the strong cold front that moved through the area as low pressure intensified across the mid-Atlantic region. The strong winds combined with wet ground resulted in dozens of trees being blown down in some north Georgia counties. There were also two deaths as a result of downed trees in Barrow and Gwinnett county, all non-thunderstorm-related winds.

EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
164625	STAPLETON	4/10/2009	Tornado	EF1	0	0	$100,000.00	A vigorous upper closed low was moving from the mid-south and Mississippi valley region into the mid-Atlantic and southeast U.S. A strong cold front accompanied the upper system. A strong low-level jet in advance of these weather systems transported warm, moist Gulf air northward into the region. With strong dynamics, hence shear, combined with an unusually moist, unstable atmosphere, the atmosphere was primed for a major weather outbreak. One round of thunderstorms passed through north Georgia during the early morning hours. A few minor severe weather events accompanied this system in northwest Georgia. Partial clearing followed the morning convection, allowing temperatures to soar into the mid 70s across much of north and central Georgia in advance of the main weather system. Scattered to numerous discrete supercell thunderstorms developed during mid-afternoon in northwest Georgia and progressed east and southeast across the remaining portions of the county warning area during the evening hours. Severe thunderstorms and tornadoes lingered into the early morning hours of the 11th across the southern counties of central Georgia. During the eight hour period from 5 pm EDT on April 10th to 1 am EDT on April 11th, a total of 14 tornadoes were confirmed to have touched down in north and central Georgia causing millions in damages. While some injuries were observed, no deaths were observed.
698287	GRANGE	4/3/2017	Tornado	EF0	0	0	$25,000.00	A strong short wave and associated surface low swept through the southern and eastern U.S. and combined with moderate instability and strong shear resulted in widespread severe weather, including numerous tornadoes, across north and central Georgia from late morning through the afternoon.

EVENT_ID	BEGIN_LOCATION	BEGIN_DATE	EVENT_TYPE	TOR_F_SCALE	DEATHS_DIRECT	INJURIES_DIRECT	DAMAGE_PROPERTY_NUM	EPISODE_NARRATIVE
893112	ALMIRA	4/13/2020	Tornado	EF0	0	0	$20,000.00	A powerful Spring storm system resulted in a Severe Weather / Tornado outbreak across much of the Southeast region, including north and central Georgia, beginning on Easter Sunday (April 12th) and lingering into the morning hours of April 13th. From the Storm Prediction Center (Day 1) convective outlook, just about the entire area was under an ENHANCED risk for severe weather with a MODERATE risk extending from the ArkLaMiss into western Georgia.||In addition, enhanced rainfall occurred over far north Georgia and in portions of central Georgia, with rainfall amounts ranging from 3 to 8 inches through the event. Significant flooding was in portions of the area with numerous reports of washouts and several reports of rescues.
1074979	MAGNOLIA	1/4/2023	Tornado	EF0	0	0	$-	A strong developing system over brought moist southerly winds across the north and central Georgia, creating isolated severe thunderstorms and flash flooding on the afternoon and evening of January 3rd. The severe weather threat continued into Wednesday, January 4th, as the storm progressed eastward and brought a cold front across the area, producing isolated damaging wind gusts.
						12	$9,480,030.00	

http://www.tornadohistoryproject.com/



Tropical Storms

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's 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. Jefferson County is not likely to experience a hurricane or storm surges.

The entire county has the potential to be affected by tropical storms. Based on historical data, there have been 14 tropical storms reported by the NCEI and SHELDUSTM with reported property and crop damage. The county is actively conducting damage assessments for Hurricane Debby and Hurricane Helene, and total damages are yet to be finalized by local officials. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly more than $1.2 Billion with a population of 16,930.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5316379	JEFFERSON (ZONE)	9/14/2002	1100	Tropical Storm	Saturday, September 14, 2002. The remnants of Hanna then moved northeast across central Alabama during the day Saturday and then across north Georgia Saturday evening into Sunday morning. The center of the remnants of Hanna passed near Carrollton, Georgia around 2 AM EDT Sunday morning, then exited the state near Clayton, Georgia Sunday morning, September 15th, around 10 am EDT. While the heaviest rain and wind associated with Hanna did not affect north and central Georgia area, a significant northwest -southeast oriented feeder band associated with Hanna moved across north and central Georgia during the mid and late afternoon Saturday. Wind gusts of 45 to 50 mph and very heavy tropical thunderstorms accompanied the feeder band. Numerous trees and power lines were blown down as the feeder band moved rapidly northeast through the afternoon. Many residents of north Georgia were left without power for at least a few hours. In the Atlanta metropolitan area alone, 48,000 residents were left without power. There were also scattered areas of urban and street flooding as up to 2 inches or more of rain fell in association with the feeder band in a one to two hour period. The heaviest rain fell across the counties north of a line from Atlanta to Athens. Additional rain fell across the region Saturday night and Sunday morning, but was considerably less intense, confined mainly to central Georgia, and was not accompanied with damaging winds. Three day rainfall totals in association with Hanna were in excess of 3 inches across much of northeast, east central, and the southern portions of middle Georgia. Athens reported 3.54 inches on September 14th alone, with a 3-day total of 5.03 inches. The average rainfall amount for north Georgia stations for the month was in excess of 7 inches, and was nearly 5 inches for middle Georgia. These rainfall amounts are approximately 3.5 and 1.5 inches above normal, respectively. Several stations, particularly in north Georgia had in excess of 10 inches of rain during the month, with 12.47 inches at Carrollton, 11.23 inches at Embry, 11.02

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5334529	JEFFERSON (ZONE)	7/1/2003	0	Tropical Storm	Tropical Depression Bill, which was earlier Tropical Storm Bill, tracked across north and central Georgia during the day bringing heavy rain, flooding, wind damage, and even an isolated tornado to the region. The storm, which formed in the Gulf of Mexico Sunday morning, June 29th, moved inland between New Orleans, Louisiana and Mobile, Alabama on Monday June 30th, then tracked northeast to near Tuscaloosa, Alabama by the morning of July 30th, then turned east-northeast and accelerated. The depression moved between Birmingham, Alabama and Atlanta, Georgia during the afternoon of July 1st, exiting northeast Georgia after midnight on July 2nd. Twenty-four rainfall totals of four to six inches were common on July 1st across much of north and portions of central Georgia, roughly north of a line from Columbus to Athens. Rainfall amounts were generally in the 1 to 2 inch range south of this line. There were numerous reports of flooding, especially in the Atlanta metropolitan area, and a number of roads were rendered impassable and closed. The ground across north and central Georgia was saturated from a number of weeks of above normal rainfall and the tropical storm rainfall just exacerbated the situation. As the center of circulation associated with the tropical depression tracked across north Georgia, a brief F1 tornado spinup occurred in Morgan county southwest of Madison in east central Georgia. There were also other isolated wind damage reports in areas east and southeast of Atlanta from Stockbridge to Madison to Athens.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5423956	JEFFERSON (ZONE)	9/6/2004	1200	Tropical Storm	scale) with sustained winds of 145 mph, reached the east coast of Florida just north of West Palm Beach, Florida early on September 5th. The storm weakened to a Tropical Storm as it continued west-northwest across the Central Florida Peninsula reemerging over the northwest Gulf of Mexico early on September 6th. The storm then took on more of a northwestward movement, making landfall later on the 6th near Saint Marks Florida along the Florida Panhandle Gulf Coast. Continuing north-northwestward from this point, Tropical Storm Frances entered far southwest Georgia near Bainbridge late in the evening on the 6th. The storm continued moving north-northwest through far western Georgia on the 7th to near Atlanta around midnight on the 7th, then to near Chattanooga, Tennessee early on the 8th. By far the most significant problem with Frances for Georgia was strong, sustained winds of 35 to 40 mph with gusts in excess of 50 mph. Most of the high winds were concentrated in a large east-west oriented rain band that moved north across Georgia during the evening of the 6th and the early morning hours of the 7th. It was during this period of time that significant damage occurred across many Central, East Central, and North Central Georgia counties. The strongest winds and most significant damage occurred in the areas east and south of a line from Americus, to Atlanta, to Athens. Many of the counties within this area suffered extensive wind damage. Dozens to hundreds of trees were blown down, also bringing down dozens to hundreds of power lines. Nearly 300,000 people were left without power during the storm, several thousand for several days. Dozens of homes suffered major damage throughout Central and North Central Georgia, with dozens more sustaining minor damage. The most significant damage took place in an area bounded by Macon, Atlanta, Greensboro, Dublin, Americus, and back to Macon. Damages in the millions were observed in several of these counties, including several large pecan orchards which were virtually destroyed. Estimated total damage with Frances $14.9

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5424489	JEFFERSON (ZONE)	9/16/2004	0	Tropical Storm	within its life cycle a category five hurricane, developed from a tropical wave which moved off the African coast on August 31st. The system became a tropical depression on September 2nd, and tropical storm on September 3rd, and a hurricane early on September 5th. Later that same day, it became a major hurricane. Ivan moved westward for several days and passed over the southern Windward islands, then moved west-northwest through the southern Caribbean passing just north of Venezuela and the Netherlands Antilles. The hurricane reached category five strength on September 9th as it neared Jamaica. The hurricane weakened to a category four storm as it passed near Jamaica. The storm maintained its category four strength as it turned slightly west of north until the 11th when it briefly strengthed once again to a category five storm. The storm passed near Grand Cayman and the west tip of Cuba from September 11th to the 12th as mostly a category four hurricane. The storm then turned to the northwest and moved through the Yucatan Channel. It briefly regained category five strength one more time as it moved through the Gulf, but weakened to a category three hurricane by the time it struck the U.S. Gulf Coast near Gulf Shores, Alabama around 2 am September 16th. From here, the weakening hurricane moved nearly due north to near Birmingham by the evening of the 16th. By this time it had weakened to a tropical storm. The storm then turned northeast across northwest Georgia during the early morning hours of the 17th as it weakened to a tropical depression. Ivan brought tornadoes, high winds, and significant to record flooding to north and central Georgia. The track of Ivan across central and northeast Alabama also put much of central and eastern Georgia in the favorable quadrant for strong spiral feeder bands and tornadoes. Six tornadoes were confirmed with Ivan causing an estimated $3.4 million dollars in damages. These tornadoes consisted of two F1 tornadoes, one each in Madison and Wilkes county in northeast Georgia, with one F0 tornado reported in Cherokee, Madison,

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5424081	JEFFERSON (ZONE)	9/26/2004	0	Tropical Storm	affect Georgia within a three week period, following just 10 days after Hurricane Ivan, which followed just 10 days after Hurricane Frances. Jeanne caused the least damage to north and central Georgia counties of the three tropical systems to affect the state during the month of September. High winds were limited mainly to the southeast portions of middle Georgia and flooding rains were limited to the Atlanta area and south middle Georgia counties. No tornadoes were observed with Jeanne as the favorable tornado-producing spiral feeder bands remained well east over the Carolinas and western Atlantic. Hurricane Jeanne developed on September 13th from a tropical wave over the Leeward Islands. Jeanne moved slowly across the Virgin Islands and Puerto Rico on the 15th, then slowly over the Dominican Republic and Haiti the 16th and 17th. Most of this time, the storm maintained only strong tropical storm strength. Jeanne then took a northward turn on the 18th and moved across the southeastern Bahamas as a tropical storm. From this point, Jeanne meandered through a slow clockwise loop from the 20th through 23rd, when the loop was finally completed. During this time the storm strengthened to a category two hurricane. Jeanne then began a slow westward track on the 23rd and strengthened to a category three hurricane. The storm then made landfall on the 25th, just north of West Palm Beach, Florida, at almost the exact same location as Hurricane Frances had done 20 days prior. Jeanne weakened to a tropical storm as it turned north-northwest across central Florida on the 26th and then weakened into a tropical depression as it moved into southern Georgia early on the 27th. The storm tracked from near Valdosta during the early morning hours of the 27th, reaching Macon around sunset on the 27th, then accelerating into northeast Georgia near Athens by midnight and out of the state early on the 28th. High winds of 35 to 40 mph with some higher gusts were confined mainly to the central and southeast portions of middle Georgia, roughly southeast of a line from Macon to Sandersville. Rainfall

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5468048	JEFFERSON (ZONE)	6/12/2005	0	Tropical Storm	Tropical Storm Arlene, which formed on June 8th near the northeast coast of Honduras, became a tropical storm on the 9th southwest of Grand Cayman. Arlene moved slowly northward and steadily intensified as it crossed western Cuba. The storm continued northward over the eastern Gulf of Mexico where it reached its peak intensity with a wind speed of 70 mph. The storm made landfall near Pensacola, Florida with 60 mph on the 10th. The storm moved slowly northward through central and western Alabama on the 11th and 12th. Damage to Georgia from the storm was minimal. While rain occurred in many areas, only one flash flooding event was reported in association with Arlene, namely in Towns county on the 12th.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
5477107	JEFFERSON (ZONE)	10/5/2005	400	Tropical Storm	Tropical storm Tammy developed just east of the central Florida coast on the 5th of October as the result of a complex interaction between an upper-level low and a tropical wave. The storm quickly strengthened from tropical depression status to a tropical storm early on the 5th about 20 miles east of Cape Canaveral, Florida. The storm moved north-northwest parallel to the Florida coast most of the 5th until it turned northwest and made landfall along the northeast Florida coast near Mayport, Florida late on the 5th. Its maximum sustained winds were only 50 mph. Tammy moved west across south Georgia and southwest Alabama on the 6th before becoming absorbed into an extratropical low pressure area over the Florida Panhandle. The main effects of Tammy on north and central Georgia consisted of approximately two days of a steady light to moderate rain. However from late on the 5th through much of the 6th, bands of heavier rain showers affected much of eastern Georgia. Two-day rainfall totals of three to five inches were common across east Georgia, mostly east of a line from Athens to Dublin. Areas immediately west of this line received generally one to two inches of rain, while the western most counties of Georgia against the Alabama border received less than one inch of rain in association with tropical storm Tammy. No tornadoes occurred and no wind damage or flooding was reported in north or central Georgia in association with Tammy. The rain that fell as a result of Tammy followed a period of nearly 40 days during which most of the region had received less than 0.10 inch of rain. Wind associated with this system across north and central Georgia was for the most part 15 mph or less.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
132251	JEFFERSON (ZONE)	8/21/2008	1200	Tropical Storm	brought to much of Florida as well as being one of the longer lived tropical systems to affect the U.S. Tropical Storm Fay formed from a tropical wave on August 15th along the east coast of Hispaniola. The storm moved west along the south coast of Cuba before reaching a weakness in the subtropical ridge to its north causing it turn north-northwestward into central Cuba by the 17th. Fay continued to track north-northwest through the Florida straits and Florida Keys on the 18th before turning northeast toward the Florida peninsula. The storm made landfall on August 19th in southwest Florida at Cape Romano as a tropical storm with winds of 60 mph. Fay continued to move very slowly northeast across the central Florida peninsula, well maintaining its strength along the way, reaching the northeast coast of Florida on August 21st. At this point, a strengthening subtropical ridge and surface high over the mid-Atlantic region forced Fay to take a sharp westward turn toward the Florida panhandle. The storm tracked west to west-northwest from the 22nd through the 25th into extreme southeast Louisiana before reaching the western end of the subtropical ridge and an approaching frontal system. Thus, Fay once again turned back toward the northeast across central Mississippi and central/northern Alabama before finally becoming absorbed into the mean flow and a frontal system located across the Tennessee Valley.||The slow movement of Fay and the proximity to the forecast area allowed for Fay's impacts on the Peachtree City forecast area to last several days. Outer rain bands affected the southern parts of the forecast area as early as the 20th. Outer rain bands continued to affect the southern counties as Fay tracked slowly west through the Florida Panhandle the 21st, 22nd, and 23rd. Some of these produced gusty winds and a few trees were blown down in the far southeastern counties, namely Toombs with three downed trees and Emanuel with two downed trees. While no tornadoes occurred at this point, tornado warnings were issued for several counties in the south central and southeast part

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
204045	JEFFERSON (ZONE)	11/10/2009	500	Tropical Storm	Hurricane Ida, which formed in the Caribbean and intensified to a category two hurricane on the Saffir-Simpson scale, moved north from the Caribbean across the central Gulf of Mexico and then inland along the U.S. Gulf coast near Mobile, Alabama early on the 10th. The remnants of the hurricane then moved east-northeast across southern Alabama and southern Georgia before moving off the east coast of the U.S. as a strong surface low pressure area. Heavy rainfall, on the order of four to five inches, was common across north Georgia, with one to two inch amounts across central areas. With the ground totally saturated from several prior months of heavy rainfall, widespread creek, stream, and river flooding was observed over a two to three day period. Because the rain intensity was mostly moderate or less and extended over a period of 18-24 hours, flash flooding events were isolated, with most of the flood events being of the creek, stream, and river flood nature.||The small wind core of Hurricane Ida and its track across land significantly reduced the wind effects of this system on north and central Georgia. Winds were generally in the 15 to 20 mph range with a few stronger gusts. Only Banks county in northeast Georgia observed any wind damage, where a few trees and power lines were blown down.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
349244	JEFFERSON (ZONE)	9/4/2011	1100	Tropical Storm	Tropical Storm Lee moved slowly onshore the Louisiana coast on Friday September 2nd and then grudgingly moved northeast through Sunday September 4th before finally becoming caught up in an eastward advancing upper trough and associated frontal system. The remnants of Lee tracked across central Mississippi, central and northern Alabama, and into northern Georgia on the 5th before moving northeast of the area early on September 6th. The remnants brought beneficial modest rainfall amounts to the northwestern half of Georgia, with the heaviest rainfall falling in northwest Georgia, mainly northwest of a Rome to Dalton line. In this corner of the state, rainfall of five to seven inches was common over the two-day period, resulting in minor flooding. During the afternoon of the 5th, daytime heating combined with a pocket of strong shear associated with the remnants of Tropical Storm Lee and spawned numerous strong thunderstorms across north and central Georgia. Many of these exhibited strong low-level rotation prompting numerous tornado warnings during the afternoon and evening hours of the 5th. However, only one of these actually netted a tornado, an EF1 that tracked across much of eastern Cherokee county causing extensive damage to homes and businesses in that area. Damages were likely in excess of $11 million across eastern Cherokee county.||Tornado, thunderstorm wind, and flash flood damages related to Tropical Storm Lee are provided via those individual damage reports.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
721396	JEFFERSON (ZONE)	9/11/2017	800	Tropical Storm	On the morning of August 30th Tropical Storm Irma developed rapidly over the eastern Atlantic Ocean, just west of the Cape Verde Islands. Tropical Irma quickly strengthened as it moved west, reaching hurricane strength by the morning of August 31st. Hurricane Irma continued to move steadily westward across the Atlantic Ocean, intensifying to category 4 storm on the Saffir-Simpson scale as it approached the northern Leeward Islands of the Lesser Antilles on September 4th. By the morning of the September 5th Hurricane Irma had reached category 5 and remained so into the morning of September 8th as it moved through the northern Antilles and approached the Bahamas. Irma continued moving west northwest as a category 4 storm before turning north over the Florida Straits, and crossing the Florida Keys on the 9th and 10th. Hurricane Irma made landfall over southwest Florida as a category 4 storm during the evening of the 10th and travelled north northwest through western Florida before weakening to a category 1 hurricane as it crossed into southwest Georgia the afternoon of September 11th. Tropical Storm Irma crossed southwest Georgia through the day of the 11th before weakening to a tropical depression over north Alabama early on the morning of the 12th. Tropical storm strength winds produced widespread damage across central and north Georgia through the day of September 11th and into the early morning hours of the 12th. Isolated flash flooding associated with Tropical Storm Irma was reported as well.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
793581	JEFFERSON (ZONE)	10/10/2018	2200	Tropical Storm	Hurricane Michael made landfall along the Florida panhandle at Mexico beach (just southeast of Panama City) on the afternoon of October 10, 2018 as a high-end Category 4 hurricane (max winds of 155 MPH). Michael then moved rapidly inland, causing widespread wind damage along its path as it swept northeast across south and central Georgia. Hurricane Michael was the first major hurricane, category 3 or higher, to directly impact Georgia since the 1890s. In southwest Georgia, wind gusts as high as 115 mph were recorded. Within the NWS Atlanta/Peachtree City county warning area, wind gusts of 40-60 MPH, with some gusts over 70 mph, across portions of central Georgia on the evening of October 10th into the morning of October 11th led to widespread tree damage and power outages with damage to numerous structures. Severe crop damage was also reported, especially to cotton and pecan crops, as well as devastating impacts to commercial timberland. In addition, a few brief tornadoes in the outer bands of Michael caused isolated damage in portions of the north and central Georgia while heavy rainfall led to localized flooding. Michael quickly exited the state as a tropical storm late on the morning of October 11th.

EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	EPISODE_NARRATIVE
924110	JEFFERSON (ZONE)	10/29/2020	200	Tropical Storm	During the late evening of October 28th through the morning of October 29th, Tropical Storm Zeta swept rapidly across north Georgia producing widespread wind damage and isolated flooding across north and portions of central Georgia. Around 1.5 million customers lost electricity for some period of time, some for several days.

Severe Weather (Thunderstorm Wind, Lightning, and Hail)

Three types of severe weather were identified by the mitigation team: (1) thunderstorm winds, (2) lightning and (3) hail.

The first severe weather event, thunderstorm winds, can cause death and injury, power outages, property damage, and can disrupt telephone service, severely affect radio communications and surface/air transportation which may seriously impair the emergency management capabilities of the affected jurisdictions. Thunderstorm winds arise 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 lightning. Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas. Rising and descending air within a thunderstorm separates these positive and negative charges. Water and ice particles also affect charge distribution. A cloud-to-ground lightning strike begins as an invisible channel of electrically charged air moving from the cloud toward the ground. When one channel nears an object on the ground, a powerful surge of electricity from the ground moves upward to the clouds and produces the visible lightning strike. Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall.

The final 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 GMIS has the entire county with a wind hazard score of two, where wind speed is between 90 to 99 mph. All 118 critical facilities have a wind hazard score of two with a replacement cost of more than $328 million. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly less than $1.3 Billion with a population of 16,930.

Jefferson County_ National Weather_ Hail						
EVENT_ID	CZ_NAME_S	BEGIN_LOC	BEGIN_DAT	DAMAGE_PROF	SOURCE	EVENT_NARRATIVE
9994338	JEFFERSON		6/3/1959	0		
9994210	JEFFERSON		4/18/1969	0		
9993804	JEFFERSON		4/14/1984	0		
5546085	JEFFERSON	LOUISVILLE	4/26/1996	0		
5639121	JEFFERSON	BARTOW	4/3/1998	0		
5639962	JEFFERSON	LOUISVILLE	4/17/1998	0		
5638330	JEFFERSON	LOUISVILLE	4/22/1998	0		Jefferson county 911 reported quarter size hail between Louisville and Wrens.
5687497	JEFFERSON	LOUISVILLE	4/24/1999	0	GENERAL P	The public reported hail a little larger than golf ball size, strong winds, and power out in Louisville.
5263645	JEFFERSON	AVERA	8/24/2001	0	POST OFFI	The Avera Post Office reported dime size hail.
5292022	JEFFERSON	LOUISVILLE	5/3/2002	0	EMERGENC	The Jefferson county 911 center reported dime to quarter size hail.
5308090	JEFFERSON	WRENS	7/6/2002	0	LAW ENFOI	The Wrens police department reported golf ball size hail.
5345634	JEFFERSON	LOUISVILLE	3/19/2003	0	EMERGENC	The Jefferson county 911 center and the public both reported penny size hail.
5349602	JEFFERSON	WRENS	4/7/2003	0	LAW ENFOI	The Wrens Police Department reported quarter-sized hail.
5360827	JEFFERSON	LOUISVILLE	5/2/2003	0	EMERGENC	The Jefferson county 911 center reported penny-sized hail.
5362267	JEFFERSON	LOUISVILLE	5/11/2003	0	GENERAL P	The public reported nickel to quarter-sized hail halfway between Louisville and Wrens.
5410261	JEFFERSON	STELLAVILL	6/12/2004	0	GOVT OFFI	The Jefferson County 911 center reported golf ball-sized hail in the Stellaville area.

5447895	JEFFERSON	LOUISVILLE	4/13/2005	0	GOVT OFFI	The Jefferson County 911 Center reported quarter-sized hail.
5489482	JEFFERSON	LOUISVILLE	########	5000	TRAINED SF	The Columbia, SC Weather Forecast Office relayed a report from a storm spotter of golf ball-sized hail.
5513048	JEFFERSON	LOUISVILLE	5/14/2006	0	TRAINED SF	The public reported penny-sized hail.
5513050	JEFFERSON	LOUISVILLE	5/14/2006	0	EMERGENC	The Jefferson County Emergency Management Director reported penny-sized hail.
5526793	JEFFERSON	BARTOW	7/28/2006	0	GENERAL P	The public observed penny-sized hail.
89549	JEFFERSON	STAPLETON	3/15/2008	300000	Public	The public observed tennis ball-sized hail across northern Jefferson county, especially in the Wrens area. The Huddle House restaurant on Main Street in Wrens suffered considerable damage from the large hail as a number of windows were broken.
127792	JEFFERSON	LOUISVILLE	7/22/2008	0	County Offi	The Jefferson County 911 Center reported that penny-sized hail fell in the northwest part of the county, south of Avera. Radar data supported that large hail likely fell over a larger area than reported.
128653	JEFFERSON	WRENS	7/28/2008	80000	Public	The public observed golf ball-sized hail in Wrens. Radar supports that large hail of similar size likely fell across a good portion of northeast Jefferson county.

131141	JEFFERSON	WADLEY	8/4/2008	0	Law Enforc	An officer with the Wadley Police Department observed penny-sized hail in the Wadley area.
242837	JEFFERSON	LOUISVILLE	6/20/2010	0	County Offi	The Jefferson County 911 Center relayed reports of quarter-sized hail northwest to west northwest of Louisville in northwest and west central Jefferson county.
347937	JEFFERSON	WRENS	9/25/2011	0	Broadcast M	The Macon television media relayed reports of nickel-sized hail around Wrens.
349823	JEFFERSON	WADLEY	9/27/2011	45000	Public	The public observed golf ball-sized hail just south of Wadley in the far southern part of the county.
451962	JEFFERSON	WRENS	5/21/2013	0	Public	The public reported nickel sized hail in Wrens.
518640	JEFFERSON	LOUISVILLE	5/25/2014	0	911 Call Ce	The Jefferson County 911 Center reported quarter sized hail in Louisville.
511241	JEFFERSON	AVERA	5/27/2014	0	911 Call Ce	The Jefferson County 911 Center reported quarter sized hail south of Wrens.
962690	JEFFERSON	LOUISVILLE	5/3/2021	0	Emergency	The Jefferson County Emergency Manager reported hail the size quarters in Louisville.
				$430,000.00		

National Weather _ Jefferson County _ Lightning						
EVENT_ID	CZ_NAME_	BEGIN_DAT	EVENT_TYP	DAMAGE_PROP	SOURCE	EVENT_NARRATIVE
5609002	JEFFERSON	7/23/1997	Lightning	200000		Lightning was responsible for at least three house fires in Jefferson County. The first one was reported at approximately 1:33 am in Zebina. Lightning struck a tree and jumped to a nearby home, entering the home through electrical wiring. Several appliances were damaged and the front door was knocked off of its hinges. A second strike at 1:38 am, entered the homes attic, after having struck a nearby tree. Some of the attic's insulation caught fire. The third lightning strike occurred just before 3:00 am. The lightning struck a pecan tree at the corner of a home, then entered the house. The sole occupant was able to escape and drive for help. The house was a total loss.
5714729	JEFFERSON	8/20/1999	Lightning	10000	NEWSPAPE	Lightning caused a fire that spread throughout the attic of a home on North Main Street. There was damage to the roof and its support above several rooms.
5374576	JEFFERSON	8/10/2003	Lightning	25000	EMERGENC	The Jefferson county 911 center reported that lightning struck a house and set it on fire. Damage estimates were inconclusive.

EVENT_ID	CZ_NAME_	BEGIN_DAT	EVENT_TYP	DAMAGE_PROP	SOURCE	EVENT_NARRATIVE
340451	JEFFERSON	8/6/2011	Lightning	500	County Offi	The Jefferson County 911 Center reported that lightning struck a tree at the intersection of Georgia Highway 88 and Moore Road in Stapletons Crossroads. The tree was set on fire. The summertime pattern continued. A quasi-stationary front remained across north Georgia and extended westward into the mid-south. A strong subtropical ridge also remained across the south, anchored in north Texas. The upper ridge had retrograded slightly from the previous day allowing slightly more active northwest flow to evolve across the southeastern states. A hot, very moist, unstable air mass remained in place across Georgia. Scattered to numerous thunderstorms developed across west central Georgia during the late morning and early afternoon and propagated on outflow boundaries northward and eastward across much of north and east Georgia. Although very few of these storms reached severe limits, frequent to excessive cloud-to-ground lightning was noted with many of these storms, as well as locally very heavy rain on the order of two to three inches.
				$235,500.00		

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
9995458	JEFFERSON CO.		3/8/1961	800	Thunderstorm Wind	0		
9998216	JEFFERSON CO.		7/4/1966	1500	Thunderstorm Wind	0		
9994540	JEFFERSON CO.		6/27/1971	1800	Thunderstorm Wind	0		
9993514	JEFFERSON CO.		3/21/1974	540	Thunderstorm Wind	0		
9997814	JEFFERSON CO.		4/13/1979	1500	Thunderstorm Wind	0		
9995936	JEFFERSON CO.		2/16/1982	1930	Thunderstorm Wind	0		
9997173	JEFFERSON CO.		4/23/1983	1820	Thunderstorm Wind	0		
9995079	JEFFERSON CO.		7/29/1986	1240	Thunderstorm Wind	0		
9997343	JEFFERSON CO.		7/24/1987	1330	Thunderstorm Wind	0		

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
9997344	JEFFERSON CO.		7/24/1987	1430	Thunderstorm Wind	0		
9995171	JEFFERSON CO.		6/26/1988	1945	Thunderstorm Wind	0		
9996313	JEFFERSON CO.		2/28/1989	615	Thunderstorm Wind	0		
9996479	JEFFERSON CO.		4/28/1990	1720	Thunderstorm Wind	0		
10010407	JEFFERSON CO.		8/21/1990	1630	Thunderstorm Wind	0		
10008202	JEFFERSON CO.		3/1/1991	1920	Thunderstorm Wind	0		
10007210	JEFFERSON CO.		7/1/1992	1345	Thunderstorm Wind	0		
10007242	JEFFERSON CO.		7/3/1992	1319	Thunderstorm Wind	0		
10319066	JEFFERSON CO.	Wrens	7/16/1995	2000	Thunderstorm Wind	1000		Thunderstorm winds knocked down trees and powerlines across northern portions of Jefferson County between Wrens and Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
10319067	JEFFERSON CO.	Wadley	7/24/1995	1755	Thunderstorm Wind	20000		Thunderstorm winds blew trees down on house.
5580616	JEFFERSON CO.	WRENS	1/2/1996	1705	Thunderstorm Wind	60000		
5560047	JEFFERSON CO.	WADLEY	6/26/1996	2010	Thunderstorm Wind	1000		
5595036	JEFFERSON CO.	WRENS	4/22/1997	1905	Thunderstorm Wind	2000		
5604885	JEFFERSON CO.	LOUISVILLE	6/18/1997	1315	Thunderstorm Wind	2000		Thunderstorm winds knocked down trees and tree limbs along Georgia Highway 17.
5607652	JEFFERSON CO.	WRENS	7/16/1997	1820	Thunderstorm Wind	2000		Several trees were knocked down on Old Cornith Road by thunderstorm winds.
5609133	JEFFERSON CO.	WADLEY	7/27/1997	1730	Thunderstorm Wind	1500		Thunderstorm winds knocked down several trees southeast of Wadley.
5640061	JEFFERSON CO.	WADLEY	4/17/1998	2328	Thunderstorm Wind	2000		Several trees were blown down and there were power outages near Wadley.
5652407	JEFFERSON CO.	WRENS	6/9/1998	2010	Thunderstorm Wind	5000	EMERGENCY MANAGER	Jefferson county 911 reported trees and power lines down at 3 different locations between Wrens and Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5660795	JEFFERSON CO.	LOUISVILLE	8/18/1998	1600	Thunderstorm Wind	1000	EMERGENCY MANAGER	Louisville 911 reported 3 trees down on highway 296 north of Louisville. Widespread power outages were also reported.
5701539	JEFFERSON CO.	WRENS	6/29/1999	1345	Thunderstorm Wind	1000	LAW ENFORCEMENT	The Wrens police department reported trees down and power outages.
5714664	JEFFERSON CO.	WRENS	8/19/1999	1610	Thunderstorm Wind	5000	EMERGENCY MANAGER	Jefferson county 911 reported trees and power lines down. A newspaper reported the wind blew over a gas pump at a convenience store in Wrens. Some roofing was also ripped away at an auto parts store about a mile to the south.
5151774	JEFFERSON CO.	COUNTYWIDE	6/22/2000	1715	Thunderstorm Wind	5000	EMERGENCY MANAGER	The Jefferson County Emergency Management Coordinator reported trees down on power lines all across the county. In addition, a tree was reported down and blocking Georgia Highway 102 between Avera and Stapleton in the north part of the county.
5172170	JEFFERSON CO.	WADLEY	8/1/2000	1400	Thunderstorm Wind	3000	EMERGENCY MANAGER	The Jefferson county 911 center reported that trees were knocked down on Moxley-Bartow Road.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5230759	JEFFERSON CO.	LOUISVILLE	1/19/2001	1550	Thunderstorm Wind	2000	EMERGENCY MANAGER	The Jefferson county 911 center reported that trees were blown down.
5255269	JEFFERSON CO.	WADLEY	6/3/2001	1830	Thunderstorm Wind	2000	EMERGENCY MANAGER	The Jefferson County 911 center reported that trees were down.
5263644	JEFFERSON CO.	AVERA	8/24/2001	1540	Thunderstorm Wind	0	POST OFFICE	The Avera Post Office estimated wind gusts at 65 mph.
5308181	JEFFERSON CO.	WADLEY	7/21/2002	1345	Thunderstorm Wind	0	FIRE DEPT/RESCUE SQUAD	The Wadley Fire and Police Department reported that one tree was down.
5308745	JEFFERSON CO.	STAPLETON	7/31/2002	1830	Thunderstorm Wind	1000	EMERGENCY MANAGER	The Jefferson county 911 center reported that some trees were down from Jefferson to Wrens.
5341889	JEFFERSON CO.	LOUISVILLE	2/22/2003	1000	Thunderstorm Wind	3000	EMERGENCY MANAGER	The Jefferson county 911 center reported that power lines were down.
5360826	JEFFERSON CO.	LOUISVILLE	5/2/2003	2030	Thunderstorm Wind	2000	EMERGENCY MANAGER	The Jefferson county 911 center reported that some trees were down.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5361672	JEFFERSON CO.	WADLEY	5/17/2003	1714	Thunderstorm Wind	0	EMERGENCY MANAGER	The Jefferson county 911 center reported that a number of trees had been blown down.
5330257	JEFFERSON CO.	LOUISVILLE	7/1/2003	1600	Thunderstorm Wind	30000	NEWSPAPER	The News and Farmer-Jefferson Reporter of Louisville reported that thunderstorm winds, associated with the remnants of Tropical Storm Bill, caused considerable damage to a home west of Louisville on Grange Road. A portion of the roof over the garage collapsed. The house also sustained other minor damage. A number of trees were blown down or split in half across the street and even up to one-third of a mile away. Several residents in the area reported seeing a tornado that was approximately 10 to 15 feet wide and traveled about 60 to 75 feet above the ground. One resident about four miles west of Louisville reported seeing two tornadoes.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
5427688	JEFFERSON CO.	WRENS	10/3/2004	1430	Thunderstorm Wind	30000	EMERGENCY MANAGER	The Jefferson County Emergency Management Director reported that numerous trees and power lines were down from Wrens to Mathews. Parts of U.S. Highway 1 and Georgia Highways 80, 88, and 17 were blocked by downed trees and power lines. Several locations also suffered structural damage. The roof was blown off an auto parts store. A Huddle House restaurant lost its canopy and several windows from the strong wind gusts. A mobile home was destroyed when a large oak tree split it in half and another site-built home was damaged when a large tree fell on it.
5475692	JEFFERSON CO.	LOUISVILLE	8/22/2005	1538	Thunderstorm Wind	1000	GOVT OFFICIAL	The Jefferson County 911 Center reported that a couple of power lines were blown down.
5492604	JEFFERSON CO.	WADLEY	1/2/2006	2027	Thunderstorm Wind	2000	LAW ENFORCEMENT	The Georgia State Patrol reported that several trees were down on U.S. Highway 1 just wouth of Wadley.
47822	JEFFERSON CO.	STAPLETON	7/1/2007	1602	Thunderstorm Wind	2000	County Official	The Jefferson County 911 Center reported that a few trees and power lines were down in the Stapleton area in the far northern part of the county.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
55280	JEFFERSON CO.	WRENS	8/17/2007	1700	Thunderstorm Wind	2000	County Official	The Jefferson County 911 Center reported that several trees were down near and just east of Wrens.
55357	JEFFERSON CO.	LOUISVILLE	8/17/2007	1724	Thunderstorm Wind	4000	County Official	The Jefferson County 911 Center reported that many trees were down from Louisville southward toward Bartow. More than 10 trees were down in the Louisville area alone.
102224	JEFFERSON CO.	ALMIRA	5/11/2008	557	Thunderstorm Wind	500000	NWS Storm Survey	A damage survey conducted by the National Weather Service Forecast Office in Peachtree City, Georgia, concluded that strong straight-line winds of 60 to 70 mph up to one mile south of the EF0 tornado track across central Jefferson county caused moderate damage to structures in Louisville and minor to moderate damage to structures elsewhere along the path. A number of trees and power lines were downed as well.
105730	JEFFERSON CO.	LOUISVILLE	5/20/2008	1735	Thunderstorm Wind	10000	County Official	The Jefferson County 911 Center reported that several trees and power lines were down throughout the city of Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
114400	JEFFERSON CO.	WRENS	6/11/2008	1845	Thunderstorm Wind	3000	County Official	The Jefferson County 911 Center reported that several trees and a couple of power lines were down along Gamble School Road, southwest of Wrens.
123565	JEFFERSON CO.	WRENS	7/5/2008	1700	Thunderstorm Wind	500	Emergency Manager	The Jefferson County Emergency Management Director reported that one large tree limb was blown down onto a power line.
242838	JEFFERSON CO.	LOUISVILLE	6/20/2010	1405	Thunderstorm Wind	5000	County Official	The Jefferson County 911 Center reported that several trees and power lines were down in the northwest and west central part of the county, north through west of Louisville.
323132	JEFFERSON CO.	STAPLETON	6/15/2011	2020	Thunderstorm Wind	2000	County Official	The Jefferson County 911 Center reported that at least six trees were down across the northern portion of the county, mainly near Wrens. The damage was caused by a thunderstorm outflow boundary as an area of thunderstorms moved into the county from the north.
341313	JEFFERSON CO.	WADLEY	8/9/2011	1515	Thunderstorm Wind	3000	County Official	The Jefferson County 911 Center reported that over a dozen trees were down across the eastern and southeastern part of the county.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
355140	JEFFERSON CO.	STAPLETON	########	1618	Thunderstorm Wind	7000	Emergency Manager	The Jefferson County Emergency Management Director reported that several trees and power lines were down in the far northern part of the county, generally between Stapleton and Wrens.
379033	JEFFERSON CO.	LOUISVILLE	5/31/2012	1608	Thunderstorm Wind	500	County Official	The Jefferson County 911 Center reported that three trees were blown down on the southeast side of Louisville. One tree fell on power lines along Moore Street, and two additional trees fell along U.S. Highway 1.
384604	JEFFERSON CO.	WADLEY	6/10/2012	1847	Thunderstorm Wind	250	Law Enforcement	Law enforcement reported a tree down near Highway 1.
384606	JEFFERSON CO.	LOUISVILLE	6/10/2012	1905	Thunderstorm Wind	500	County Official	The Jefferson County 911 Center reported a couple of downed trees along Old U.S. Highway 1 in Louisville.
396857	JEFFERSON CO.	LOUISVILLE	7/3/2012	1412	Thunderstorm Wind	750	911 Call Center	The Jefferson County 911 Center relayed a report of three trees down in Louisville.
408879	JEFFERSON CO.	BARTOW	8/14/2012	1725	Thunderstorm Wind	2000	Public	The public reported that several trees and many large limbs were blown down, some blocking Highway 221.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
410360	JEFFERSON CO.	AVERA	9/2/2012	1645	Thunderstorm Wind	1500	911 Call Center	The Jefferson County 911 Center reported that half a dozen trees were blown down in the northern part of the county, mainly along Fenns Bridge Road southwest of Wrens.
436979	JEFFERSON CO.	WRENS	3/18/2013	1942	Thunderstorm Wind	120000	Emergency Manager	The Jefferson County Emergency Manager reported that numerous trees and power lines were blown down between Wrens and Louisville. Two houses had trees fall on them; on had minor and the other had major damage. Up to 22 roads were blocked by falling trees.
467979	JEFFERSON CO.	LOUISVILLE MUNI ARPT	7/17/2013	1745	Thunderstorm Wind	5000	911 Call Center	The Jefferson County 911 Center reported numerous trees and power lines down across the county.
496326	JEFFERSON CO.	WRENS	1/11/2014	1258	Thunderstorm Wind	250	Emergency Manager	The Jefferson County Emergency Manager reported a tree down in Wrens.
518649	JEFFERSON CO.	WRENS	5/25/2014	1950	Thunderstorm Wind	1000	911 Call Center	The Jefferson County 911 Center reported that two power lines were blown down at houses along Hill Street.
549350	JEFFERSON CO.	ZEBINA	########	1820	Thunderstorm Wind	8000	911 Call Center	The Jefferson County 911 Center reported multiple trees blown down in Wrens and Louisville. One tree fell on a house in Louisville.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
592272	JEFFERSON CO.	WADLEY	7/2/2015	1536	Thunderstorm Wind	0	Emergency Manager	The Jefferson County Emergency Manager reported trees down along Clarks Mill Road near and on East Railroad Street in Wadley.
598793	JEFFERSON CO.	WADLEY	8/6/2015	1658	Thunderstorm Wind	1000	911 Call Center	The Jefferson County 911 Center reported a tree blown down on North Main Street in Wadley.
653867	JEFFERSON CO.	LOUISVILLE	7/19/2016	1630	Thunderstorm Wind	1000	Emergency Manager	The Jefferson County Emergency Manager reported trees blown down in Louisville.
671716	JEFFERSON CO.	CUNNINGHAM CORNER	1/21/2017	1415	Thunderstorm Wind	5000	Public	The public reported trees blown down along Highway 78 to just east of Highway 17.
717203	JEFFERSON CO.	PADGETT CROSSING	7/20/2017	2215	Thunderstorm Wind	1000	Public	The public reported numerous large limbs blown down at Bug's Gourd Farm near the intersection of Highways 88 and 22 southwest of Keysville.
743504	JEFFERSON CO.	WRENS	3/20/2018	100	Thunderstorm Wind	8000	911 Call Center	The Jefferson County 911 center reported a few trees and power lines blown down from Wrens to Louisville.
769692	JEFFERSON CO.	LOUISVILLE	7/3/2018	1600	Thunderstorm Wind	2000	Emergency Manager	The Jefferson County Emergency Manager reported a couple of trees blown down in Louisville.
841974	JEFFERSON CO.	MATHEWS	6/22/2019	1509	Thunderstorm Wind	15000	Emergency Manager	The Jefferson County Emergency Manager reported trees blown down onto a home on Campground Road near Highway 1. No injuries were reported.

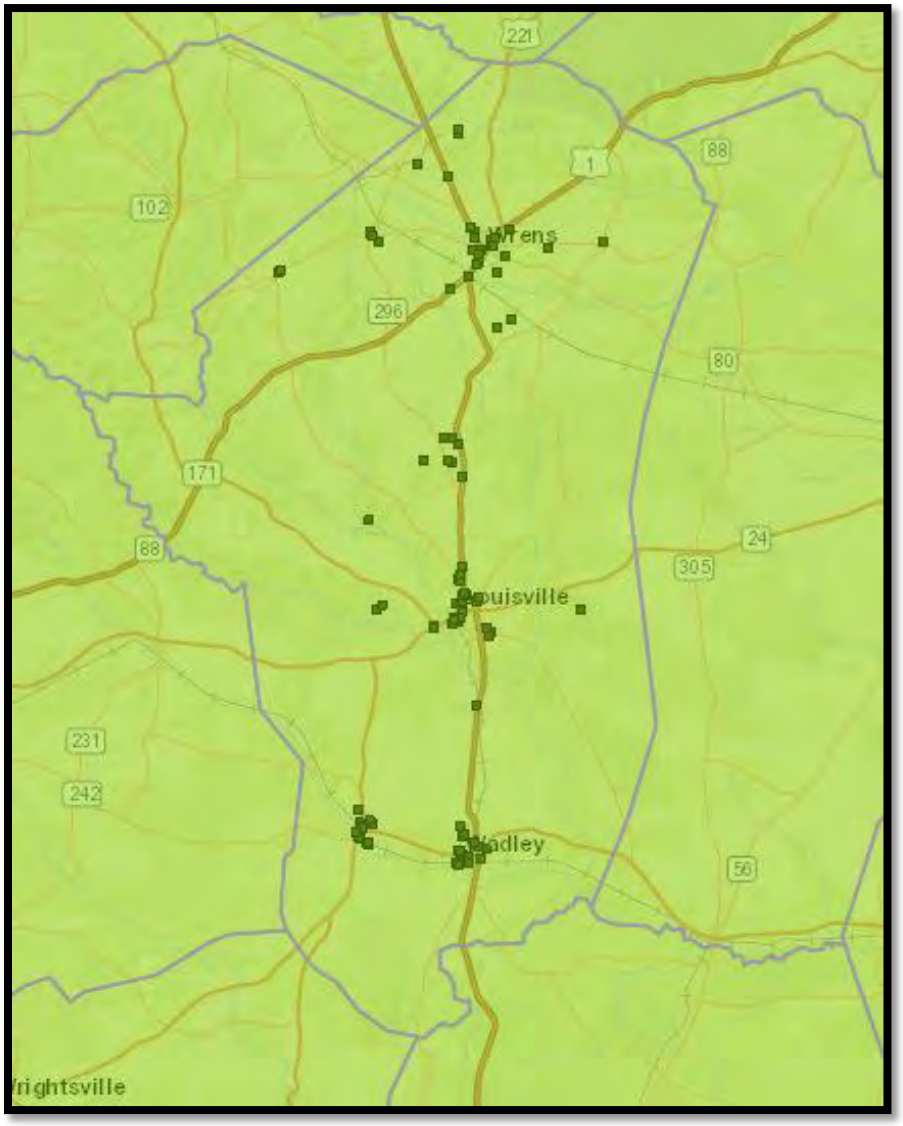
Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
849865	JEFFERSON CO.	MOXLEY	8/23/2019	1806	Thunderstorm Wind	3000	Emergency Manager	The Jefferson County Emergency Manager reported trees blown down along Highway 1 north of Wadley.
893468	JEFFERSON CO.	OMAHA SPRINGS	4/13/2020	320	Thunderstorm Wind	1000	Emergency Manager	Large tree down on Clarks Mill Road, between Avera and Hwy 540 West.
893469	JEFFERSON CO.	LOUISVILLE	4/13/2020	335	Thunderstorm Wind	10000	Emergency Manager	EM reported multiple trees down around the city of Louisville.
1022687	JEFFERSON CO.	LOUISVILLE	4/5/2022	1618	Thunderstorm Wind	0	Emergency Manager	Powerlines reported down along US-1 near the intersection of Wilcher Rd.
1022688	JEFFERSON CO.	LOUISVILLE	4/5/2022	1618	Thunderstorm Wind	1000	Emergency Manager	Tree down in yard along the 1900 block of Hwy 24.
1022689	JEFFERSON CO.	BARTOW	4/5/2022	1620	Thunderstorm Wind	1000	Emergency Manager	Tree down near the intersection of Hwy 221 and Hwy 319.
1022691	JEFFERSON CO.	ZEBINA	4/5/2022	1622	Thunderstorm Wind	0	Emergency Manager	A few trees reported down near the intersection of Zebina Rd and Shady Oaks.
1022690	JEFFERSON CO.	STELLAVILLE	4/5/2022	1622	Thunderstorm Wind	0	Emergency Manager	A metal outdoor structure damaged in addition to trees and powerlines down near the intersection of Campground Rd and Hwy 80.
1034266	JEFFERSON CO.	WRENS MEML ARPT	5/6/2022	1519	Thunderstorm Wind	0	Emergency Manager	Multiple trees reported down along Hwy 221 N between Airport Rd and Ellis Cemetery Rd.

Thunderstorm events _ National Weather _ Jefferson County

EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DAMAGE_PROPERTY_NUM	SOURCE	EVENT_NARRATIVE
1034267	JEFFERSON CO.	WRENS MEML ARPT	5/6/2022	1524	Thunderstorm Wind	0	Emergency Manager	Several trees down on Hwy 221 North near the Jefferson/McDuffie County line.
1074971	JEFFERSON CO.	AVERA	1/4/2023	916	Thunderstorm Wind	0	Emergency Manager	Multiple trees down along and near intersection of GA-296 and GA-88.
1074972	JEFFERSON CO.	ZEBINA	1/4/2023	918	Thunderstorm Wind	0	Emergency Manager	Trees and powerlines down at Hwy 296 near Jefferson County Middle School.
1138594	JEFFERSON CO.	WADLEY	8/15/2023	1658	Thunderstorm Wind	7000	State Official	The 911 call center reported 7 trees down in Wadley, GA.
1138595	JEFFERSON CO.	PINE HILL	8/15/2023	1708	Thunderstorm Wind	10000	Public	Public report of multiple trees down along Bostic Mill Road between US Hwy 221 and Lonnie Purvis Road.
1158602	JEFFERSON CO.	LOUISVILLE	1/9/2024	1253	Thunderstorm Wind	1000	Emergency Manager	Tree downed on a house along Foley St in Louisville.
						$929,750.00		

JEFFERSON COUNTY GMIS WIND MAP



Score	Original Value	Description
5	> 120 mph	3 second gust greater than 120 mph
4	110 to 119 mph	
3	100 to 109 mph	
2	90 to 99 mph (or ZONE IV)	This score is also given to an area with Zone IV of the "Design Wind Speed Map for Community Shelters," representing an area exposed to 250 mph winds. This area is the Northwestern corner of the state.
1	< 90 mph	

Winter Storm

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 high winds, ice and freezing rain, heavy snowfall, and cold temperatures. These conditions can make driving conditions very dangerous, as well as bring down trees and power lines.

Winter storms are not spatially defined and affect the entire planning equally. There have been 17 recorded winter storms in Jefferson County in the last 74 years. There is an 23% chance of an winter storm event every 4 years. 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 40,626 structures/properties in the county totaling slightly less than $1.3 billon with a population of 16,930.

Winter Weather_ Jefferson County

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5138950	JEFFERSON		4/9/2000	500	Extreme Co	OFFICIAL N	Following the strong cold frontal passage of the previous day, unseasonably cold air spread over north and central Georgia. Record low temperatures for the date were set or tied at all 4 of the major airports in north and central Georgia. Hartsfield Airport in Atlanta established a new record at 32 degrees, breaking the old mark of 33 set in 1914. At Macon's municipal Airport the new record of 32 broke the previous record of 33 set in 1985. In Columbus the new mark was 34 which broke the old record of 37 set in 1971. In Athens at Ben-Epps Airport the 32 degree reading tied the previous record low for this date set in 1972.
5153841	JEFFERSON		6/7/2000	500	Extreme Co	OFFICIAL N	An unseasonably strong Canadian high pressure system settled over the state causing minimum temperatures to drop into the 50s over most of north and central Georgia. At Ben-Epps Airport in Athens, a new record low of 50 degrees was set which broke the previous record of 54 degrees set in 1976. Although readings in the 50s were widespread elsewhere, the minimums fell just shy of record levels.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5159864	JEFFERSON		10/8/2000	0	Extreme Co	OFFICIAL N	A very large Canadian high pressure system settled over the southeastern United States following the cold frontal passage of the 6'th. This high pressure system brought unseasonably cold air to the state. Morning low temperatures from the 8'th through the 13'th were 20 to 25 degrees below normal, while high temperatures were 10 to 15 degrees below normal through the period. Frost was widespread across north and central Georgia, while freezing temperatures were observed in a number of cities. A number of locations in the northeast Georgia mountains recorded lows in the middle to upper 20s. Temperatures near 32 were common across north and central Georgia during this period. Many places reported their first freeze of the fall season a month or more earlier than the seasonal average.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5178100	JEFFERSON		12/1/2000	0	Extreme Co	OFFICIAL N	December 2000 was one of the coldest December's on record for much of north and central Georgia. In Atlanta, the monthly average temperature of 37.2 degrees F was the 4th coldest December on record, exceeded only in 1917 and 1935 with 36.2 degrees F and 1963 with 35.5 degrees F. There was a string of ten consecutive days with minimum temperatures 32 degrees F or lower occurring from December 17th through December 26th. The last time that there were 10 or more consecutive days with minimum temperatures 32 degrees F or lower was in December of 1995. There were a total of 20 days during the month that the minimum temperature dropped to or below freezing. In addition, there were 7 days on which the minimum temperature dropped below 20 degrees F in Atlanta, with 13 degrees F on the 20th being the lowest . There were even three days, the 21st, 22nd, and the 30th on which the maximum temperature even failed to rise above freezing. The story was similar across north and central Georgia with Athens reporting an average monthly temperature of 36.9 degrees F, 15 consecutive days of minimum temperatures below freezing from the 17th through the end of the month, a total of 23 days during the month which the minimum dropped to or below freezing, and a minimum temperature for the month of 15 degrees F on the 20th. At Macon, the average monthly temperature was 39.3 degrees F, there were 11 consecutive days on which the minimum dropped to or below freezing from the 17th through the 27th, and 22 days total for the month on which the minimum dropped to or below freezing, with the lowest temperature of 17 degrees F on the 20th. At Columbus, the average monthly temperature was 41.2

EVENT_ID	CZ_NAME_S	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5266304	JEFFERSON		9/26/2001	0	Extreme Co	OFFICIAL N	The first major Canadian high pressure system of the fall season brought record to near record low temperatures across much of north and central Georgia. Record low temperatures were recorded at Atlanta, Athens, and Columbus during the early morning hours of the 26th. At Atlanta's Hartsfield International Airport, a new record low of 43 degrees was recorded, which broke the previous record of 46 degrees set in 1940. Athens tied their record low of 45 degrees set in 1950 while Columbus reported a new record low of 48 degrees, breaking the previous record of 50 degrees set in 1990. Low temperatures in the 40s were widespread across north and central Georgia, while many locations in the north reported lows in the middle to upper 30s, with some locations in the northeast mountains dropping as low as the lower 30s. Similar low temperatures were observed on the 27th, but no record lows were reported. Normal low temperatures for this time of year are in the upper 50s and lower 60s.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5268568	JEFFERSON		10/27/2001	0	Extreme Co	OFFICIAL N	An unseasonably cold Canadian air mass invaded the southeastern United States behind a strong cold front which moved through the state early on the 25th. The heart of the cold air mass reached north and central Georgia on the 27th. By the morning of the 27th, morning low temperatures had dropped into the 30s across most of north and central Georgia. Highs struggled to rise to 50 in the north and to 60 in the central. Some stations in Northeast Georgia remained in the 40s all day with strong gusty winds. These temperatures were some 20 degrees below normal for the date. By the morning of the 28th, a hard freeze was observed across nearly all of north and central Georgia with lows dropping well into the 20s. Blairsville in Northeast Georgia recorded 21 degrees on the 28th and Peachtree City recorded a low of 23. Similar readings were observed on the 29th. While afternoon temperatures rose back into the 60s, morning lows continued to drop below freezing at many locations through the 31st. Only the Columbus area escaped the unusually early harsh cold reporting its coldest temperature of 34 degrees on the 29th. Macon set a record low temperature for two consecutive days with a low temperature of 27 on both the 28th and 29th. These readings broke record lows of 28 each day set in 1957 and 1976, respectively.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5277847	JEFFERSON		1/2/2002	500	Winter Stor	OFFICIAL N	The same storm which brought heavy snow to much of north and central Georgia from the 2nd to the 3rd first began across the southeast portion of central Georgia. From early morning through mid-evening on the 2nd about a 12 hour period of wet snow, sleet, and light freezing rain affected these areas. Ice accumulations averaged less than one-quarter inch, but were significant enough, when combined with a wet snow in some areas, to cause large tree limbs, and even some trees (especially pines), to fall on power lines, roads, and even some homes. Several power outages resulted. The hardest hit counties with glaze ice accumulations from freezing rain, freezing drizzle, and snow were Washington, Johnson, Jefferson, Emanuel, and Laurens counties. All together, several hundred trees were damaged or destroyed and thousands of people in these counties lost power during the 2-day storm. Many people did not have any power for 3 days or more. Emergency electrical crews were called out from out-of-state to assist with the cleanup and restoration of power.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5276932	JEFFERSON		1/2/2002	600	Heavy Snov	EMERGENC	one of the biggest snow storms to affect north and central Georgia since March 1993 began early on the 2nd and continued through mid-day on the 3rd. Over a half a foot of snow fell in some areas just south and southwest of Atlanta, with large areas of north and central Georgia receiving three to four inches of snow during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the two-day storm ranged from four to six inches in a large approximately 100 mile wide area centered along a line from La Grange, to Atlanta, to Athens, to Homer. Some areas between Carrollton and Newnan

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5279134	JEFFERSON		2/26/2002	1800	Extreme Co	OFFICIAL N	An unseasonably strong late season Arctic cold front raced through north and central Georgia during the mid-day and afternoon hours of the 26th on the heels of 20 to 30 mph northwest winds. Some of the coldest temperatures of the winter season resulted during the ensuing two days. Temperatures during the morning of the 27th were in the teens across much of north Georgia and in the lower and middle 20s across the central sections. Continuing strong winds drove wind chills down to near zero and below. Temperatures struggled to rise to the freezing mark in the north and to near 40 in the central by afternoon, despite abundant sunshine. By the morning of the 28th, the arctic high was centered very near north Georgia resulting in one of the coldest mornings of the winter season. Single-digit temperatures were reported in the northeast mountains, with teens just about everywhere else across north and central Georgia. Blue Ridge dropped to 6 degrees above zero and Blairsville to 8 degrees. Columbus, Hawkinsville, and Dublin in central Georgia were the only locations not to drop below 20 degrees during the morning of the 28th with 20, 21, and 22 degrees, respectively. On the 28th, Macon set a new record low minimum with 19 degrees and Columbus tied their record low minimum with 22 degrees. Minimum and maximum temperatures averaged some 20 to 30 degrees below normal across all of north and central Georgia during this 2-3 day period.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5281429	JEFFERSON		3/1/2002	0	Extreme Co	OFFICIAL N	The second Arctic cold front to affect Georgia within a one week period surged through north and central Georgia during the morning and early afternoon of the 3rd. Temperatures were just beginning to moderate from the extreme cold observed during the last couple of days of February. For example, Macon still set a new record low temperature of 20 degrees Fahrenheit on March 1st. Temperatures during the first 5 days of March averaged around 15 degrees below normal, but the height of the cold outbreak occurred on the 4th and 5th when temperatures averaged about 20 degrees below normal across most of north and central Georgia. While this Arctic blast was slightly less intense than the one which affected the same area the last couple of days of February, it was certainly significant. High temperatures on the 4th struggled to rise above the freezing mark across north Georgia and struggled to rise into the 40s across central Georgia, after widespread morning lows of 20 to 25 and teens in the north mountains. The coldest readings were observed during the morning of the 5th when lows of 15 to 20 were common in the north and 20 to 25 in the central. Blairsville in the northeast Georgia mountains recorded a low of 12 degrees on the morning of the 5th for the lowest reading.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5339649	JEFFERSON		1/11/2003	0	Extreme Co	OFFICIAL N	An extended period of below normal temperatures was observed as a Polar vortex in the northeastern United States provided a cold northwest flow to the region. A series of Canadian/Arctic air masses invaded the region during the period. Temperatures averaged 10 to 20 degrees below normal during the period, with a hard freeze recorded at most location nearly every day between the 11th and the 19th. On the 18th, a strong Arctic high pressure system caused minimum temperatures to drop into the teens in most areas...with some single digit temperatures in the northeast mountains.
5338580	JEFFERSON		1/23/2003	800	Extreme Co	OFFICIAL N	A strong Arctic cold front sent temperatures to their lowest level in several years across north and central Georgia. As the cold front moved through temperatures dropped through the 20s during the day and into the teens by evening accompanied with northwest winds of 25 to 35 mph with higher gusts. By midnight several locations were already below 10 degrees. Minimum temperatures bottomed out in the single digits over nearly all of north Georgia Friday morning, January 24th, with lows mostly in the mid teens in central Georgia. Hiawassee in Towns county recorded the statewide low with -2 degrees F. Some locations in north Georgia failed to rise above the freezing mark for slightly over two days. Several county school districts across the north part of the state were closed on the 23rd and/or 24th because of the extreme cold

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
5435773	JEFFERSON		1/28/2005	2000	Winter Stor	GOVT OFFI	A significant and fairly prolonged winter storm affected nearly all of North and Central Georgia from the evening of Friday January 28th to late morning on Sunday January 30th. The winter storm was a result of a very strong and very cold Arctic surface high pressure system located across the Mid-Atlantic states and an upper-level disturbance moving across the region from the west. North of a line from La Grange, to Thomaston, to Sandersville, the precipitation fell mostly as a mixture of sleet and freezing rain, with typical accumulations of one-half inch glaze ice and one to two inches of sleet. Some areas in North Central and Northeast Georgia experienced significant glaze ice accumulations of three-fourths to one inch. Further south, mainly south of a La Grange, to Thomaston, to Sandersville line, most of the frozen precipitation fell as freezing rain, with 1/4 to 1/2 inch accumulations of glaze ice common as far south as McRae, Abbeville, and Americus. In the southern areas, however, the ice accumulations were generally confined to trees, power lines, and other exposed objects with little or no accumulation of ice on the ground. Extensive damage to trees and power lines were reported throughout the area, especially in North Central, Northeast, and Central Georgia. Damage estimates were in the millions. Numerous vehicle accidents were also reported on the slick ice and sleet covered roads, especially in the Atlanta Metropolitan area. The summary below provides ice and sleet accumulations by county for this event as well as damage information received for that county. The ice and sleet accumulations were largely provided by the county 911 centers or respective Emergency Management Directors. The

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
32456	JEFFERSON		4/7/2007	400	Frost/Freez	Other Fede	A deep upper low and over the northeast U.S. and associated large Canadian surface high pressure area brought record cold to much of the eastern U.S. during the Easter weekend. Temperatures averaged a good 20 degrees below normal during the period. Freezing temperatures were observed each morning from the 7th through the 9th, but the 7th and 8th brought the most widespread and coldest temperatures to the region. Lows in the 20s were common across much of north and central Georgia, with lower 20s in parts of the northeast Georgia mountains. Average freeze dates for most of north and central Georgia are in late March. Farmers in all of the 96 north and central Georgia counties within the Peachtree City, Georgia forecast area were declared eligible for federal loans as a result of the unusually late hard freeze. The unseasonably cold and freezing temperatures resulted in the loss of nearly 100 percent of the wine grape crop, 86 percent of the blueberry crop, 78 percent of the peach crop, 41 percent loss of grasses, 40 percent of grain loss (corn and wheat), and 29 percent loss of pecan crops. Of these crops, wine grapes are nearly all grown in north Georgia and a substantial portion of the peach crop is grown in central Georgia, both within Peachtree City, Georgia's forecast area. Total losses for the entire state as a result of the freeze were estimated at $258 million, of which 50 to 60 percent of this was estimated to be within the Peachtree City, Georgia forecast area.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
216840	JEFFERSON		2/12/2010	1530	Heavy Snov	County Offi	[illegible] States. An associated area of surface low pressure was moving from the central into the eastern Gulf of Mexico. An Arctic air mass lingered across the eastern U.S. Very cold air aloft and the cold Arctic surface air mass combined with the overrunning Gulf moisture and upper dynamics to produce the most widespread snow observed across north and central Georgia in several years. All 96 counties within the Peachtree City, Georgia forecast area observed measurable snow, indeed a rarity at any time. Average snowfall across most of north and central Georgia was in the two to three inch range. Snowfall amounts ranged from less than one inch in Telfair county, to one inch in Dade county, to three to four inches in the Atlanta metropolitan area, to six inches in parts of Stewart county. Specific details of the maximum snowfall observed or reported for each county are as follows; Baldwin - 3.0 inches, Banks - 3.5 inches, Barrow - 2.0 inches, Bartow - 3.0 inches, Bibb 3.0 inches, Bleckley - 4.0 inches, Butts - 4.0 inches, Carroll - 2.5 inches, Catoosa - 2.0 inches, Chattahoochee - 3.0 inches, Chattooga - 2.0 inches, Cherokee - 3.5 inches, Clarke - 5.0 inches, Clayton - 4.0 inches, Cobb - 4.0 inches, Coweta - 3.0 inches, Crawford - 4.0 inches, Crisp - 1.0 inch, Dade - 1.5 inches, Dawson - 2.0 inches, DeKalb - 4.0 inches, Dodge - 3.0 inches, Dooly - 4.0 inches, Douglas - 3.5 inches, Emanuel - 4.0 inches, Fannin - 2.5 inches, Fayette - 4.0 inches, Floyd - 3.0 inches, Forsyth - 3.0 inches, Fulton - 4.0 inches, Gilmer - 3.0 inches, Glascock - 5.0 inches, Gordon - 3.0 inches, Greene - 4.0 inches, Gwinnett - 3.0 inches, Hall - 3.0 inches, Hancock - 3.0 inches, Haralson - 3.0 inches, Harris - 4.0 inches, Heard - 2.5 inches,

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
275146	JEFFERSON		12/25/2010	2100	Winter Wea	County Offi	[illegible] southeastern U.S. from the 25th through the 26th. Ample Gulf moisture was present across the region in advance of the upper trough to support widespread light to moderate rain. Sufficient residual cold air was present in advance of this system that rain quickly changed over to snow across north Georgia with dynamic cooling and additional cold air spreading southward as the attendant surface low moved from the eastern Gulf coastal region during the afternoon of the 25th to off the South Carolina/North Carolina coast by the morning of the 26th. This system later produced a major blizzard in the northeastern U.S. Snowfall of six to eight inches was common across many north Georgia counties, with snowfall of three to four inches common across the north Atlanta metropolitan counties and one to two inches across the south Atlanta metropolitan counties. Only a trace to one-half inch of snowfall was reported further south toward Columbus and Macon, where snow fell only briefly at the end of the precipitation event. Snow lingered in east central Georgia counties on the 26th as the surface deepened off the South Carolina/North Carolina coast. Snow showers and flurries lingered across much of north Georgia and even the northern parts of central Georgia on the 26th as temperatures struggled to even rise above freezing across north Georgia. For Atlanta, this was the first measurable snowfall on Christmas day since 1881. In addition, the 1.3 inches of snowfall that fell at the Atlanta airport before midnight on the 26th was just shy of the 1881 record of 1.6 inches of snowfall for Christmas day. The snowfall fell at a very busy travel time and combined with the subsequent

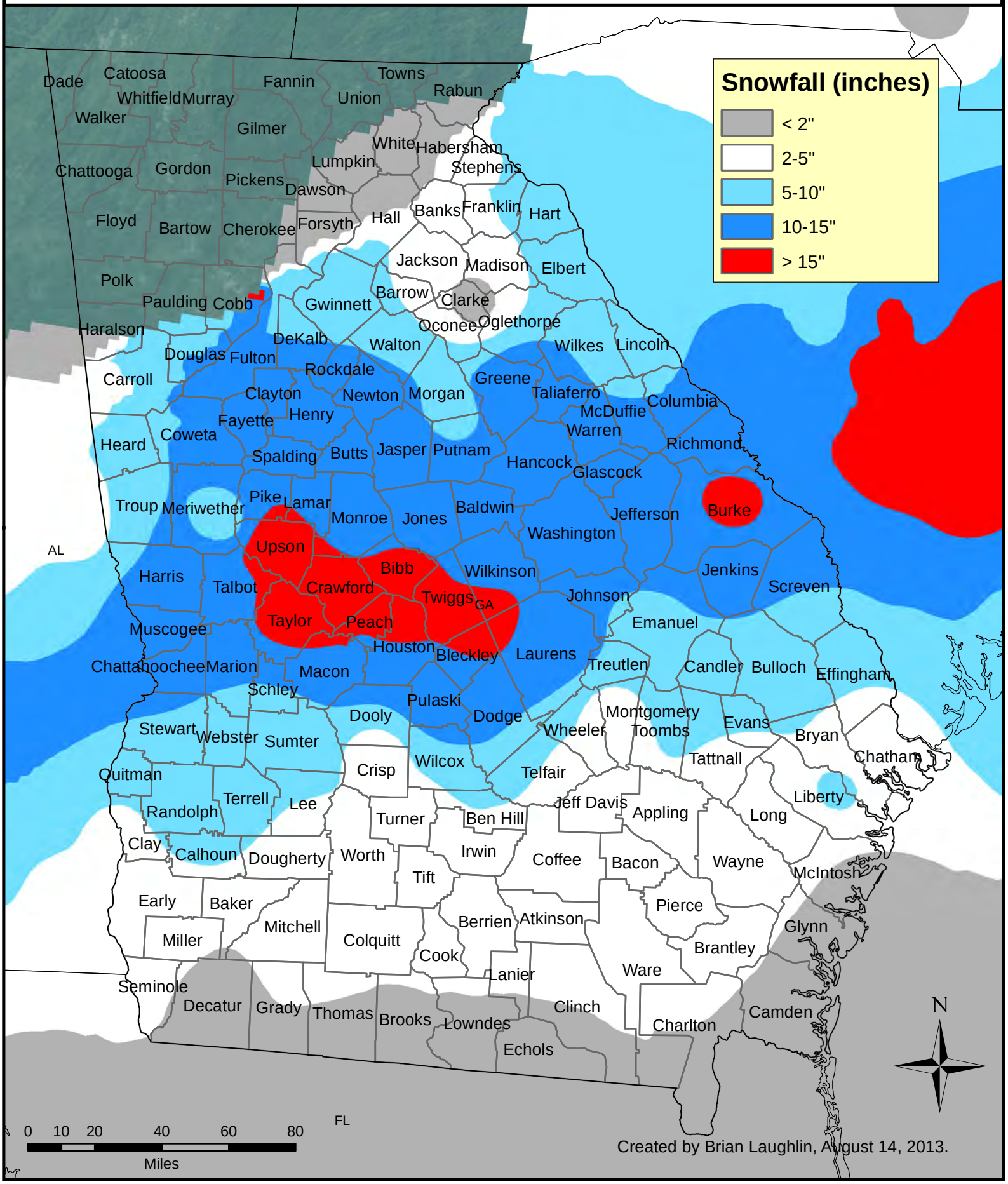
EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
501829	JEFFERSON		2/12/2014	700	Ice Storm	Emergency	The second major winter storm in as many weeks hit north and central Georgia on February 12th. An area of extremely strong cold air damming moved down the Eastern Seaboard and into north Georgia on the 12th. Southwest flow aloft allowed significant moisture to move across the Southeast, with a disturbance pushing across the southern tier of the country. A surface low developed in the northern Gulf on the 12th, pushing into extreme Southeast Georgia on the 13th. Moisture overspread the area in advance of the surface low and with cold surface temperatures in place from the cold air damming, another significant winter storm hit the area.||This storm was different from the storm two weeks prior for two main reasons: firstly, residents across north and central Georgia were well-prepared for the event, and secondly, this storm brought with it catastrophic accumulations of ice along the Interstate 20 corridor east of Atlanta towards Athens. Significant amounts of snow fell in north Georgia as well. The crippling nature of this winter storm, unlike the first, was not necessarily due to the societal impacts but rather to the significant accumulations of ice and snow and resulting widespread power outages.

EVENT_ID	CZ_NAME_	BEGIN_LOC	BEGIN_DATE	BEGIN_TIM	EVENT_TYP	SOURCE	EPISODE_NARRATIVE
733795	JEFFERSON		1/17/2018	500	Winter Wea	Emergency	A strong surface low and cold front associated with a large and deep upper-level trough, brought light to moderate snow to much of north and central Georgia from the afternoon of the January 16th through the morning of January 17th. With most of the precipitation post-frontal, temperatures were well below freezing (lower to mid 20s) as the snow occurred. This resulted in widespread icy and snow-packed roadways across the area, especially those that were not pre-treated by GDOT or Public Works.

February 9-11, 1973 Winter Storm

RSI = 12.52, Category 4

NOAA

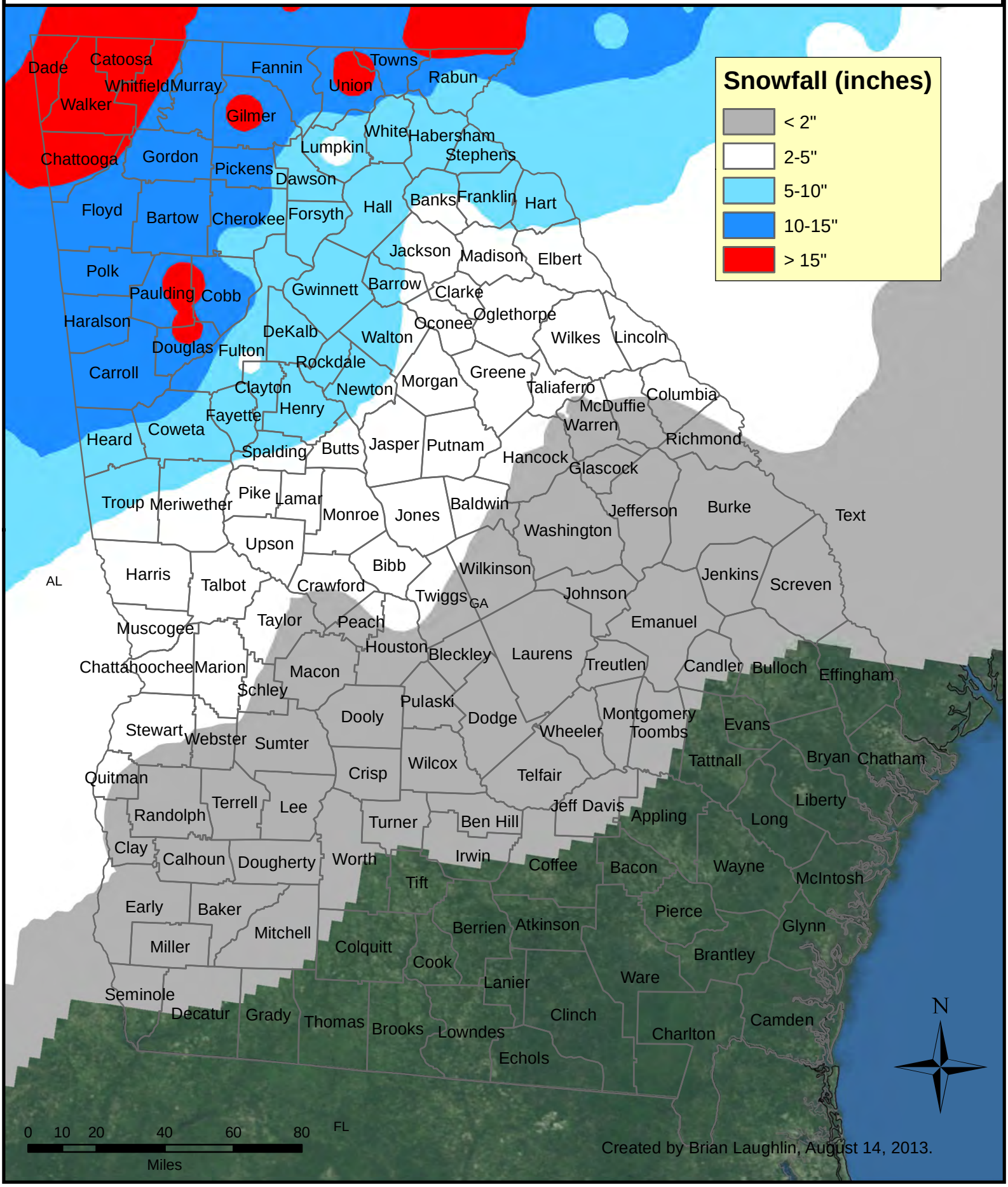


Created by Brian Laughlin, August 14, 2013.

March 12-15, 1993 Winter Storm

RSI = 20.572, Category 5

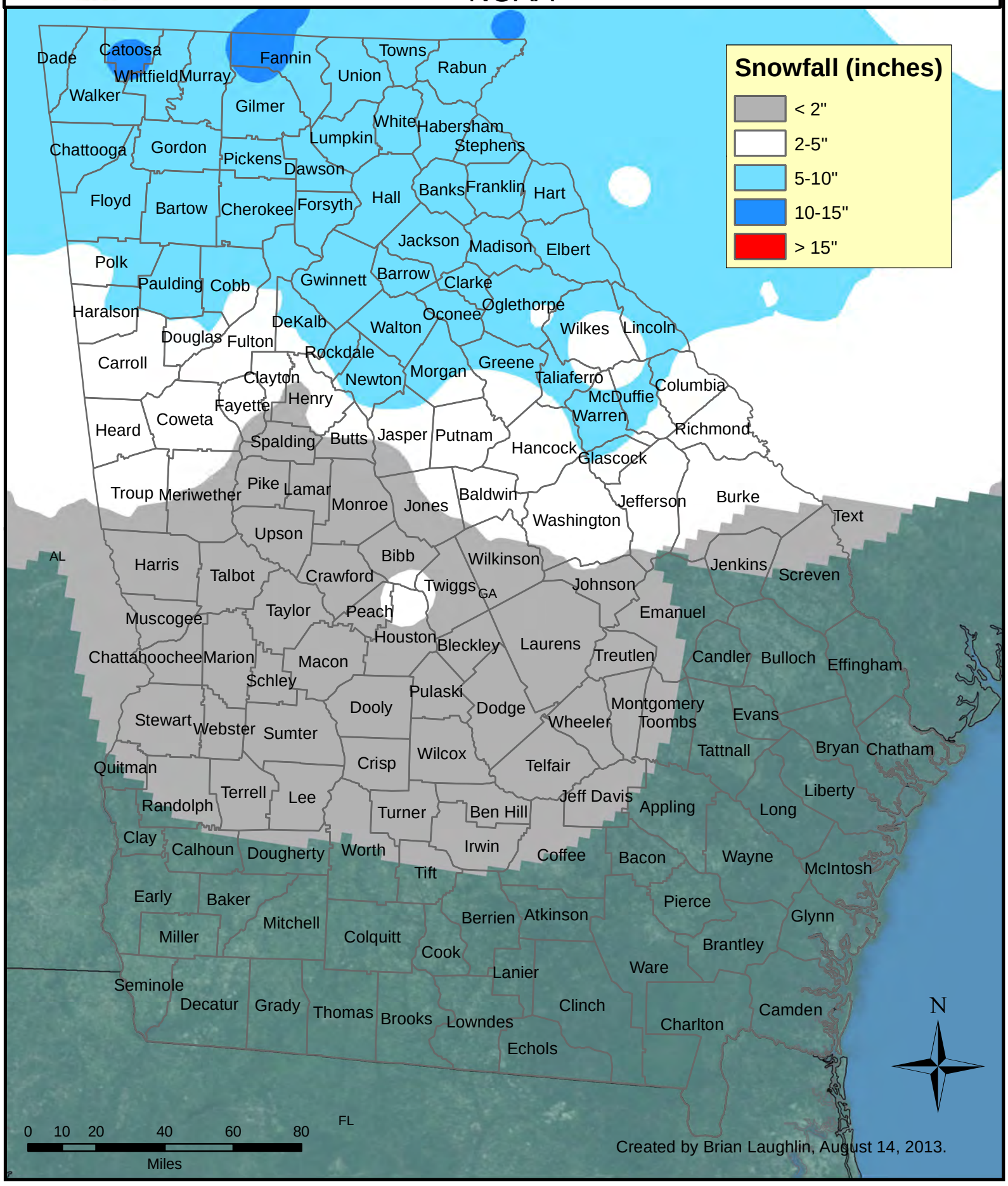
NOAA



January 9-11, 2011 Winter Storm

RSI = 4.158, Category 2

NOAA



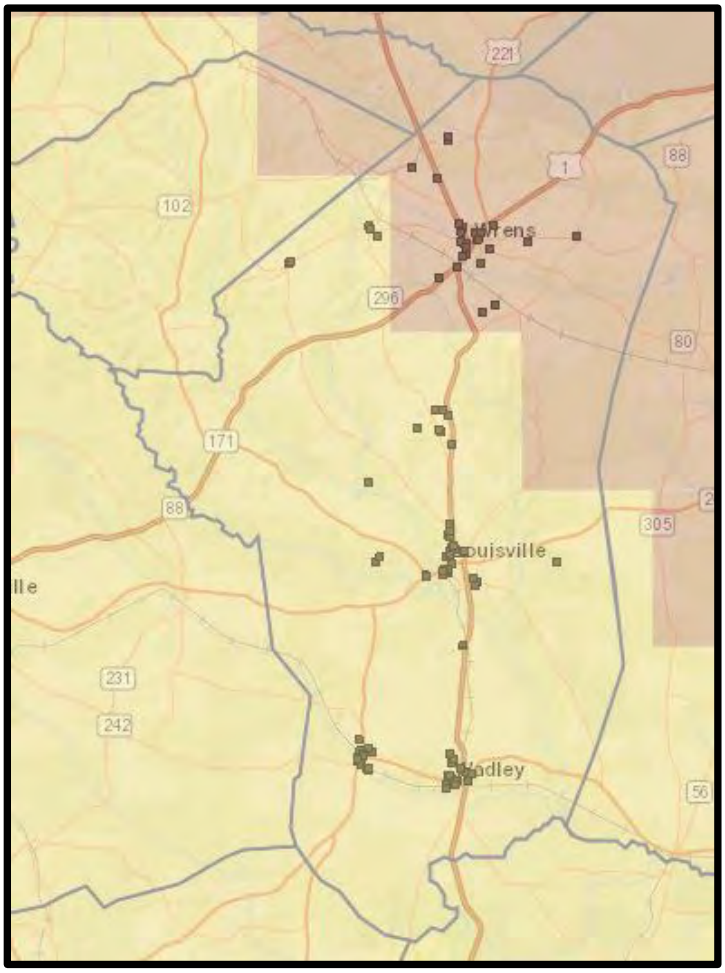
EARTHQUAKE

Earthquakes are one of nature’s most damaging hazards. An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of Earth’s tectonic plates. The severity of these effects is dependent on the amount of energy released from the fault or epicenter. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and after just a few seconds can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. If the earthquake occurs in a populated area, it may cause many deaths, injuries and extensive property damage.

Magnitude and intensity measure different characteristics of earthquakes. Magnitude measures the energy released at the source of the earthquake and is determined from measurements on seismographs. Intensity measures the strength of shaking produced by the earthquake at a certain location and is determined from effects on people, human structures, and the natural environment.

There has never been a reported earthquake event events reported in the last 68 years. Based on a 20-year cycle hazard history there is less than a 1% probability of an annual earthquake event. To summarize, there are approximately 40,626 structures/properties in the county totaling slightly less than $1.3 billon with a population of 16,930.

Jefferson County Seismic Georgia Mitigation Information System

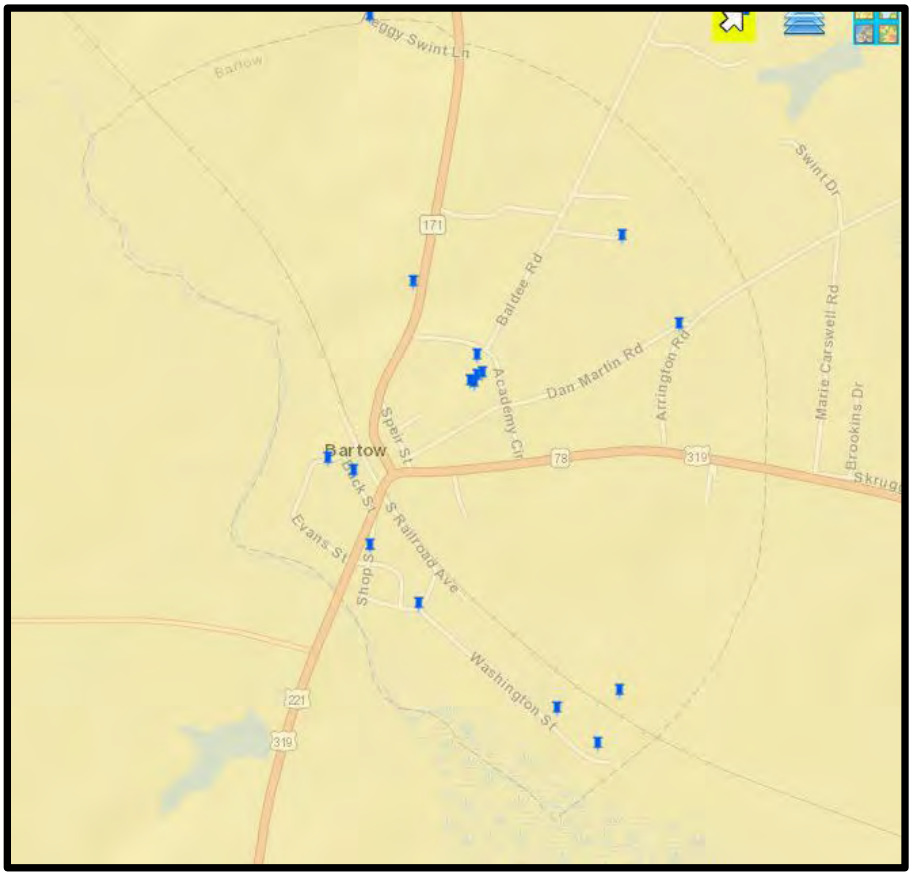


	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Avera Seismic Georgia Mitigation Information System

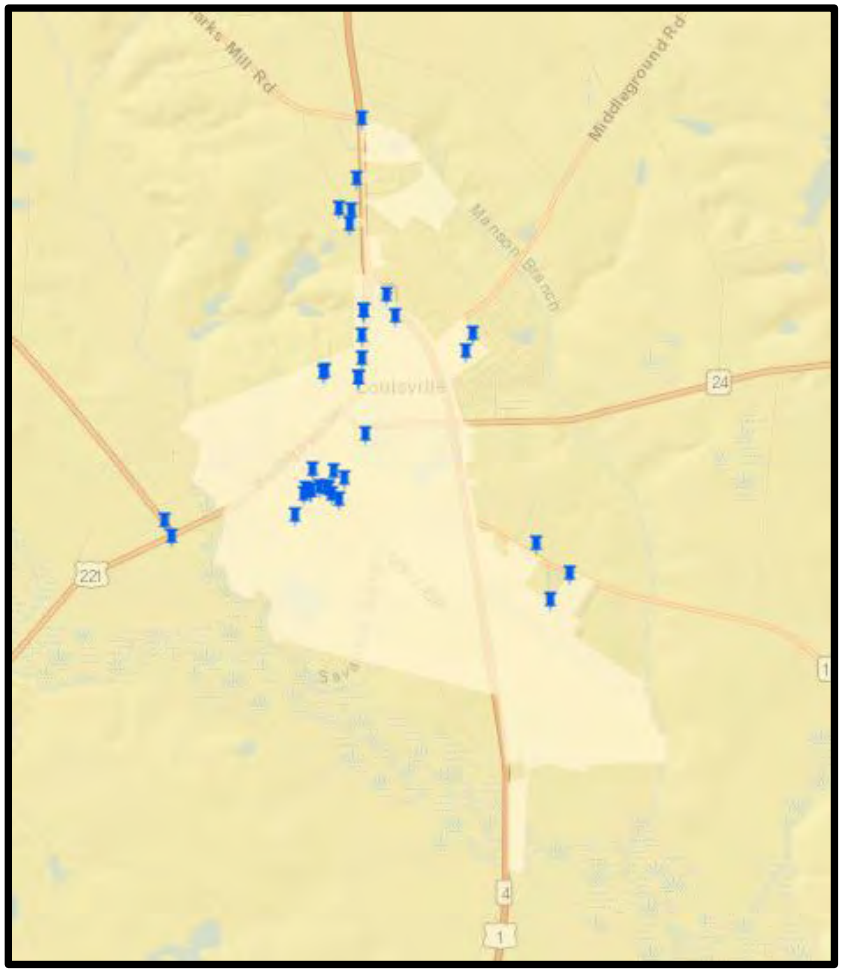
	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Bartow Seismic Georgia Mitigation Information System



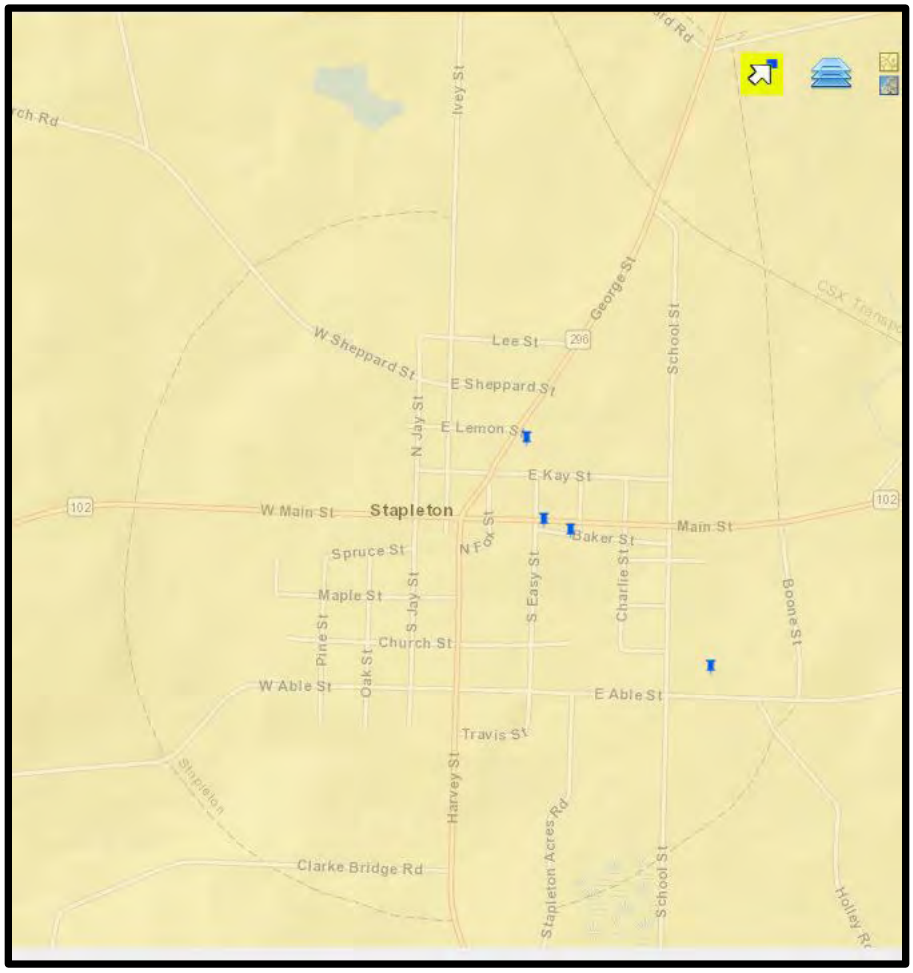
	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Louisville Seismic Georgia Mitigation Information System



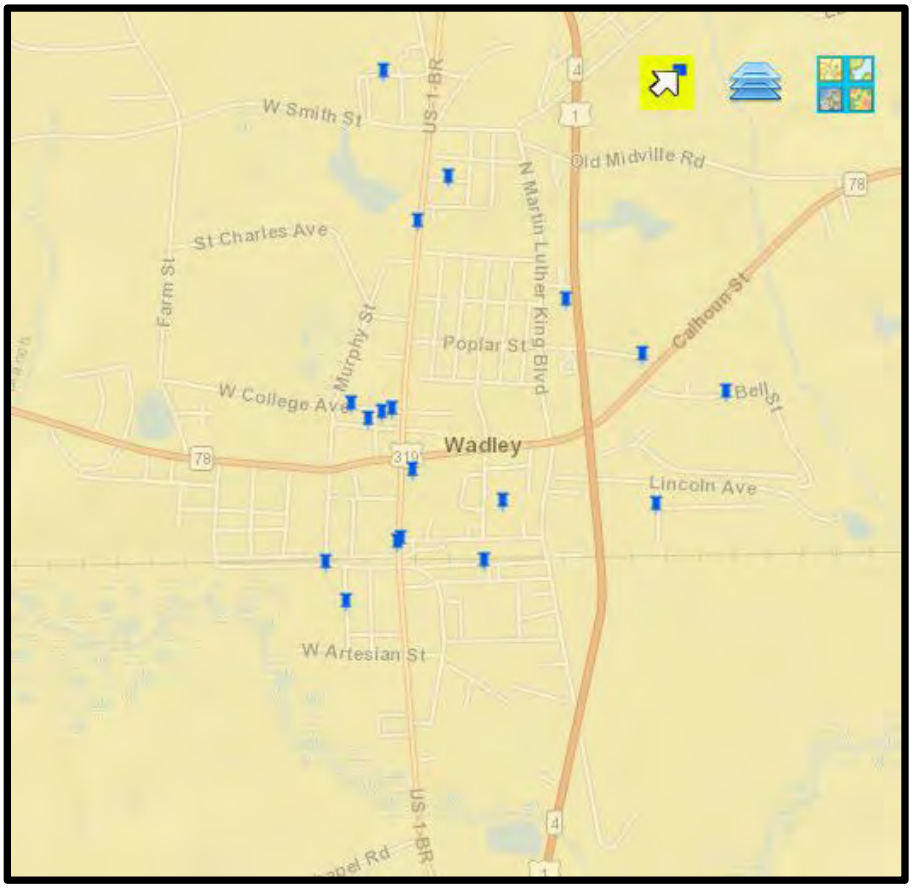
	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Stapleton Seismic Georgia Mitigation Information System



	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Wadley Seismic Georgia Mitigation Information System



	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*****	Not applicable	All other values

Wrens Seismic Georgia Mitigation Information System

	Seismic Threat Category	Original Value	Description
	1	A	0-17% gravity (lowest threat)
	2	B	17-33% gravity (low to moderate threat)
	3	C	33-50% gravity (moderate to high threat)
	4	D1	50-83% gravity (highest threat)
	*	Not applicable	All other values

APPENDIX C

OTHER PLANNING DOCUMENTS

Hazard Risk Analyses
Supplement to the Jefferson 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 2024, 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 Jefferson 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 Jefferson 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. Jefferson 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 Jefferson County were replaced with data derived from parcel and property assessment data obtained from Jefferson County. The county provided property assessment data was current as of November 2024 and the parcel data current as of October 2024. 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 Jefferson County is 99.7%. 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	593	628	$437,194,000	$159,240,000
Education	21	46	$38,118,000	$140,250,000
Government	6	6	$1,594,000	$2,455,000
Industrial	262	309	$409,493,000	$189,910,000
Religious	174	187	$107,858,000	$60,848,000
Residential	7,391	7,751	$850,270,000	$804,013,000
Total	**8,447**	**8,927**	**$1,844,527,000**	**$1,356,716,000**

*The exposure values represent the total number and replacement cost for all Jefferson County Buildings

For Jefferson 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.

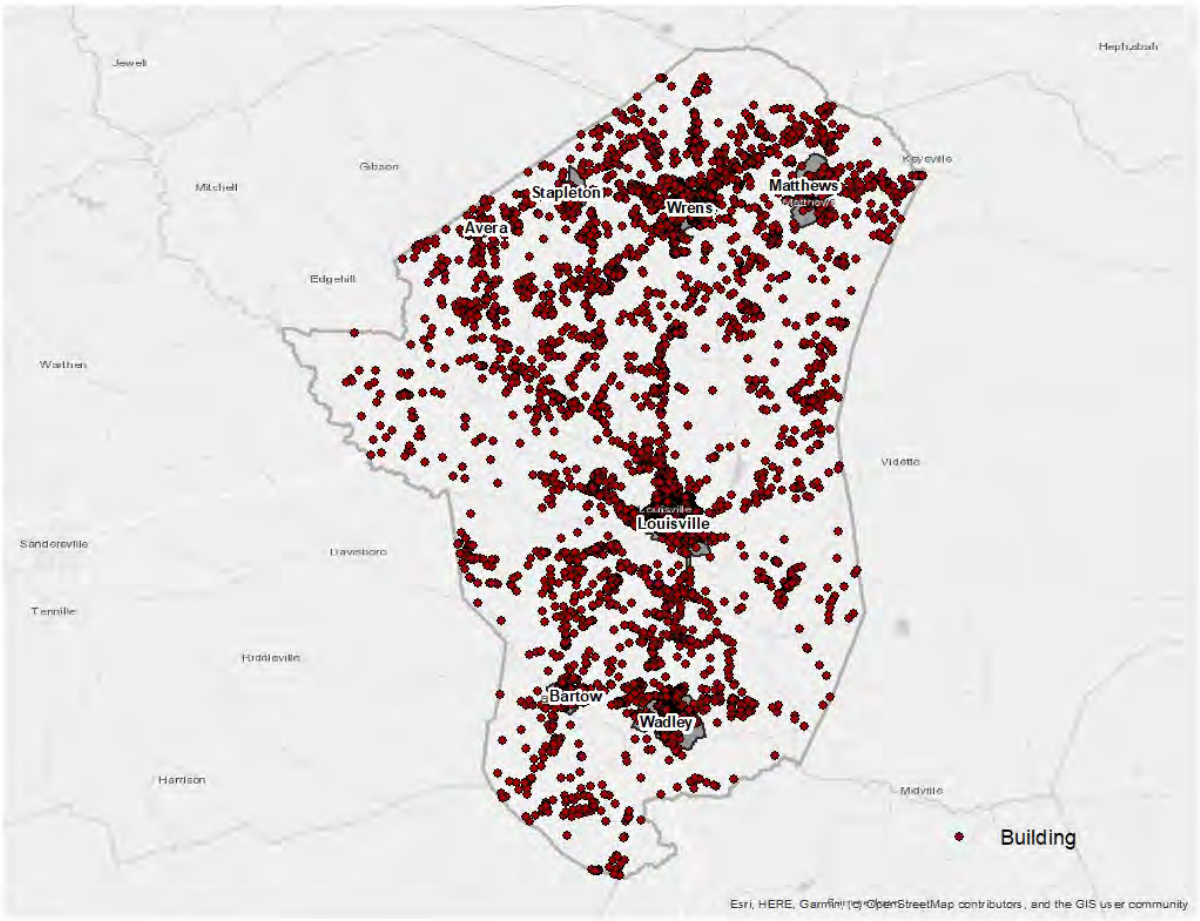


Figure 1: Jefferson County Overview

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 September 2024. 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
Avera		
EOC	0	$0
Care	0	$0
Fire	1	$100,000
Police	0	$0
School	0	$0
Total	**1**	**$100,000**
Bartow		
EOC	0	$0
Care	0	$0
Fire	1	$330,000
Police	0	$0
School	0	$0
Total	**1**	**$330,000**
Louisville		
EOC	0	$0
Care	2	$7,400,000
Fire	2	$3,311,000
Police	2	$8,392,000
School	2	$30,500,000
Total	**8**	**$49,603,000**
Matthews		
EOC	0	$0
Care	0	$0
Fire	1	$2,561,000
Police	0	$0
School	0	$0
Total	**1**	**$2,561,000**

Classification	Updated Count	Updated Exposure
Stapleton		
EOC	0	$0
Care	0	$0
Fire	1	$394,000
Police	0	$0
School	0	$0
Total	**1**	**$394,000**
Wadley		
EOC	0	$0
Care	2	$2,015,000
Fire	**1**	$300,000
Police	**1**	$900,000
School	**1**	$12,750,000
Total	**5**	**$15,965,000**
Wrens		
EOC	0	$0
Care	2	$1,890,000
Fire	**1**	$23,000
Police	**1**	$282,000
School	**1**	$20,500,000
Total	**5**	**$22,695,000**
Unincorporated Areas of Jefferson County		
EOC	1	$2,380,000
Care	2	$97,841,000
Fire	1	$2,561,000
Police	1	$5,261,000
School	4	$60,855,000
Total	**9**	**$168,898,000**

Assumptions and Exceptions

Hazus-MH loss estimates may be impacted by certain assumptions and process variances made in this risk assessment.

- The Jefferson 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 Jefferson County by creating a 20-mile buffer around the county to include storms that didn't make direct landfall in Jefferson 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 1851, Jefferson County has had 25 tropical systems within 20 miles of its county borders (Table 4).

Table 4: Tropical Systems affecting Jefferson County[3]

YEAR	DATE RANGE	NAME	MAX WIND(Knots)	MAX PRESSURE	MAX CAT
1851	August 16 - 27	UNNAMED	100	0	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
1852	August 19 - 30	UNNAMED	100	961	H3
1856	August 25 - September 03	UNNAMED	100	969	H3
1877	September 21 - October 05	UNNAMED	100	0	H3
1886	June 17 - 24	UNNAMED	85	0	H2
1887	October 09 - 22	UNNAMED	75	0	H1
1898	August 30 - September 01	UNNAMED	75	0	H1
1901	September 09 - 19	UNNAMED	70	0	H1
1915	July 31 - August 05	UNNAMED	65	1003	H1
1928	August 03 - 13	UNNAMED	90	977	H2
1933	August 31 - September 07	UNNAMED	120	948	H4
1949	August 23 - September 01	UNNAMED	115	1002	H4
1959	May 28 - June 02	ARLENE	55	1002	TS
1964	August 20 - September 11	CLEO	130	1007	H4
1965	June 13 - 20	UNNAMED	50	1007	TS
1968	June 01 - 13	ABBY	65	1005	H1
1972	June 14 - 23	AGNES	75	1001	H1
1986	August 13 - 30	CHARLEY	70	1015	H1
1990	October 09 - 13	MARCO	55	1007	TS
2000	September 15 - 25	HELENE	60	1012	TS
2001	June 05 - 19	ALLISON	50	1012	TS
2003	July 25 - 27	UNNAMED	30	1022	TD
2018	October 06 - 15	MICHAEL	140	1006	H5
2019	October 17 - 21	NESTOR	50	1007	TS
2020	July 05 - 11	FAY	50	1014	TS

Category Definitions:

TS – Tropical storm

TD – Tropical depression

H1 – Category 1 (same format for H2, H3, H4 and H5)

E – Extra-tropical cyclone

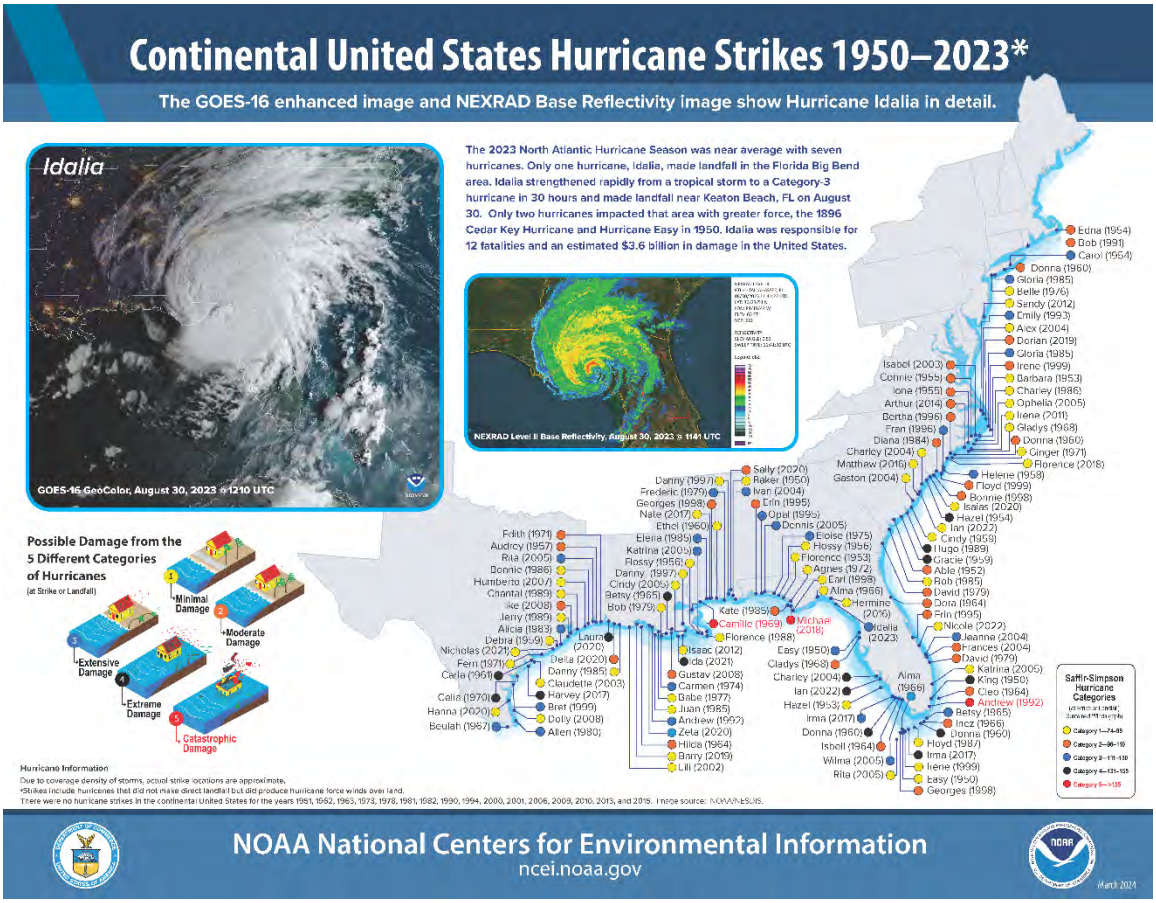


Figure 2: Continental United States Hurricane Strikes: 1950 to 2023[4]

Probabilistic Hurricane Scenario

The following probabilistic wind damage risk assessment modeled a Category One storm with maximum winds of 76 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 Jefferson County. Wind losses were determined from probabilistic models run for the Category One storm which equates to the 1% chance storm event. Figure 3 shows wind speeds for the modeled Category One storm.

[4] Source: NOAA National Centers for Environmental Information

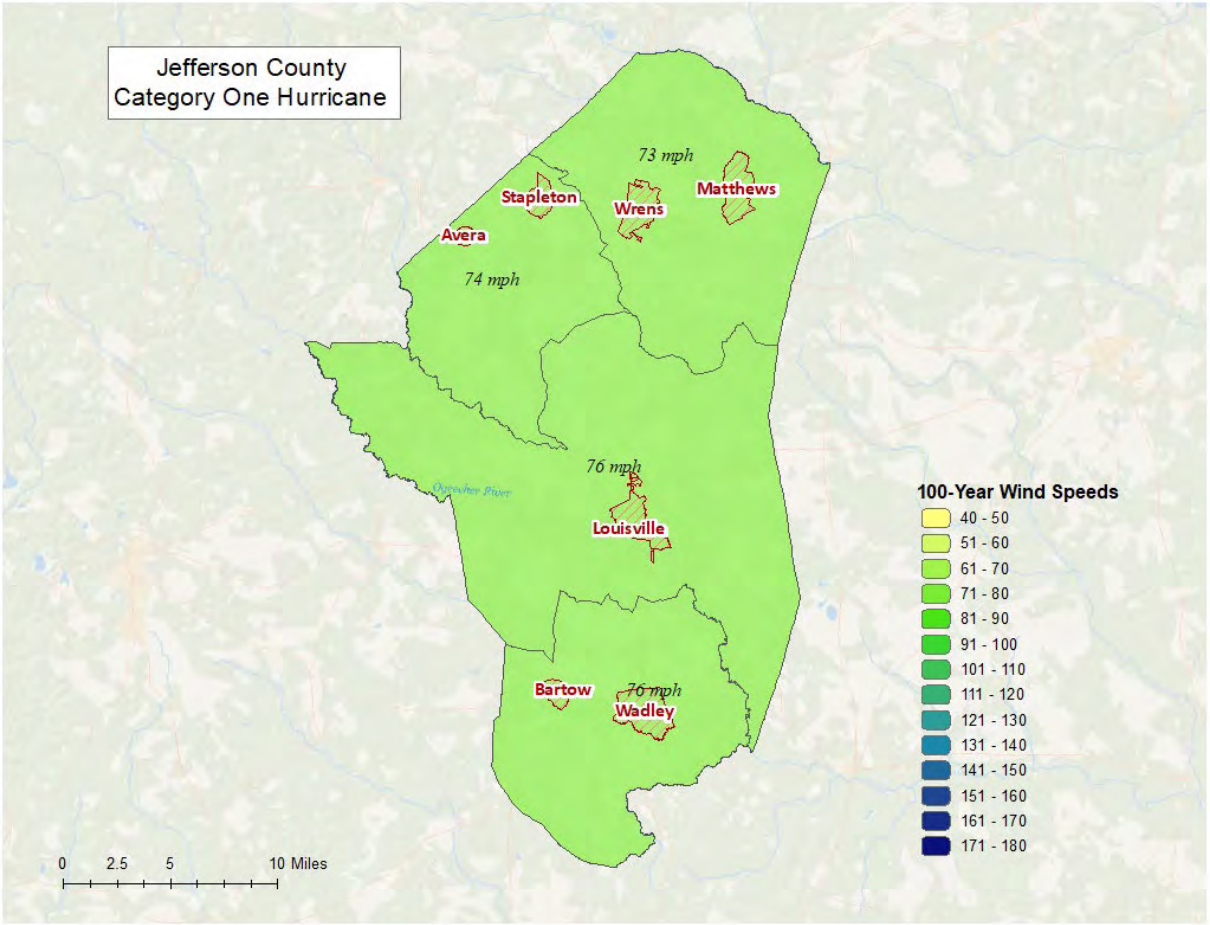


Figure 3: Wind Speeds by Storm Category

Wind-Related Building Damages

Buildings in Jefferson 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 Jefferson County for the Category One (100 Year Event) storm. 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 Category One storm.

Table 5: Hurricane Wind Building Damage

Classification	Number of Buildings Damaged	Total Building Damage	Total Economic Loss[5]	Loss Ratio
Category One	67	$1,943,770	$2,617,080	0.14%

[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.

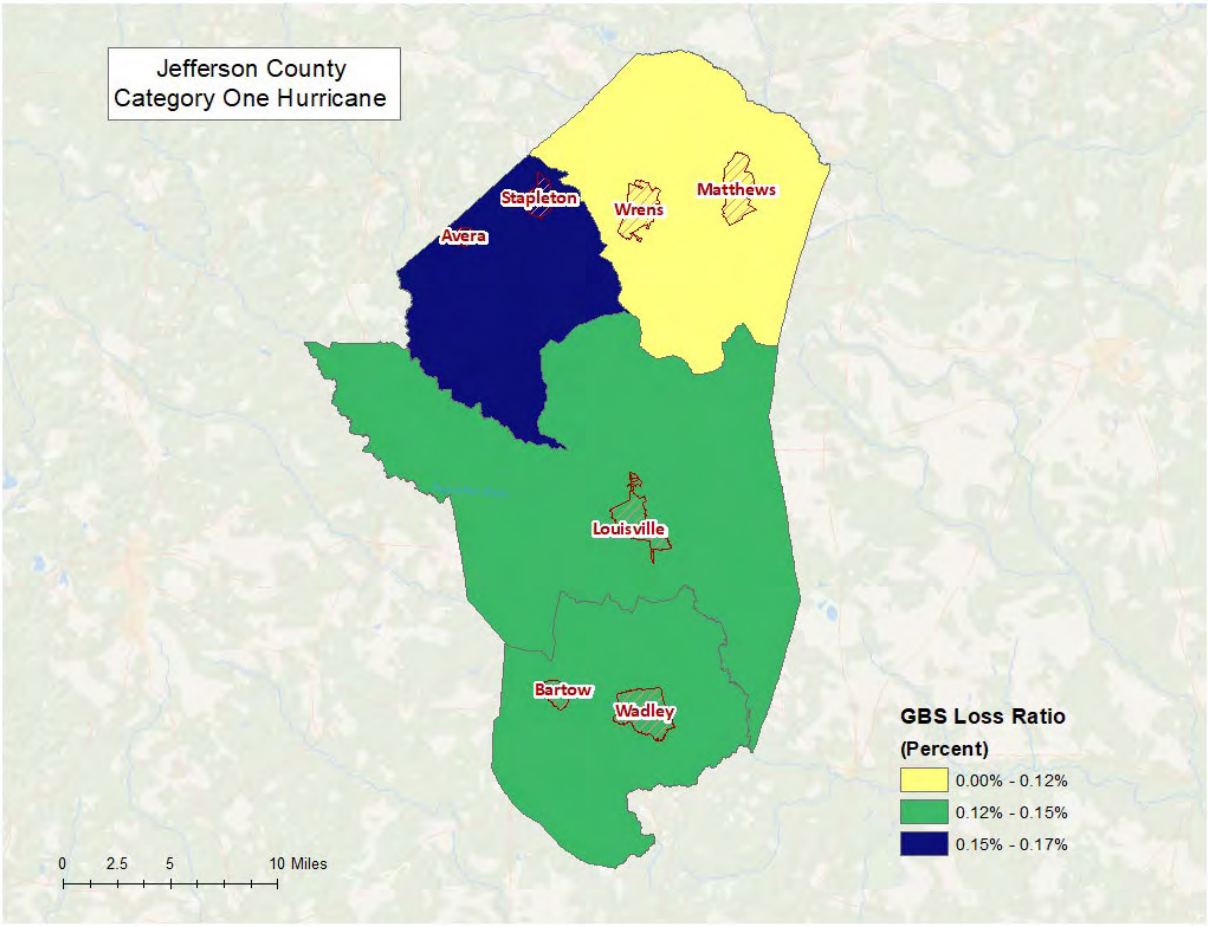


Figure 4: Hurricane Wind Building Loss Ratios

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 31 essential facilities in Jefferson County.

Classification	Number
EOCs	1
Fire Stations	9
Care Facilities	8
Police Stations	5
Schools	8

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)
Category One	0	0	31

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 Jefferson County is a Category One 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
Category One	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
Category One	219	0	2,037	48,790	51,046

Figure 5 shows the distribution of all wind related debris resulting from a Category One 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.

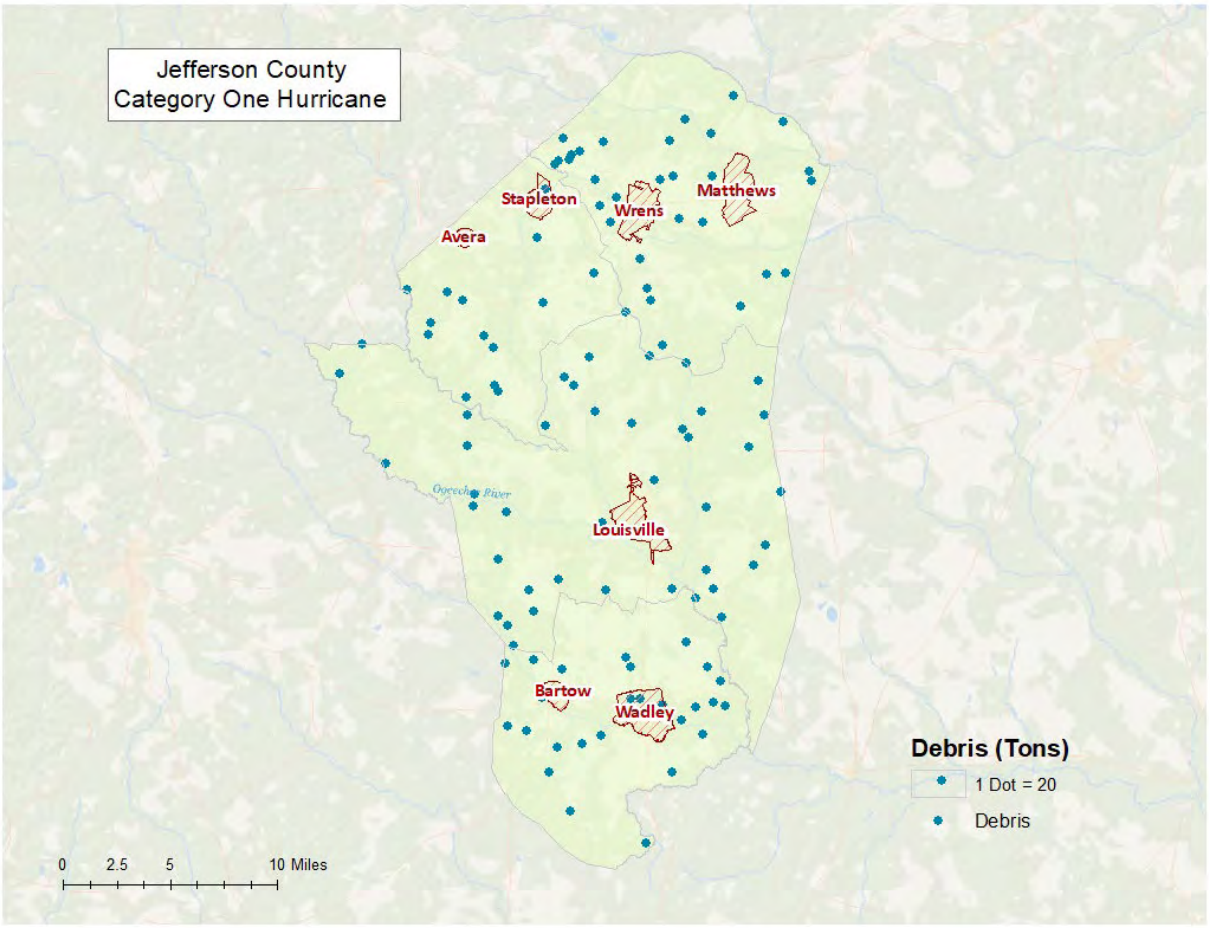


Figure 5: Wind-Related Debris Weight (Tons)

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 Jefferson 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 November 2024. 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.

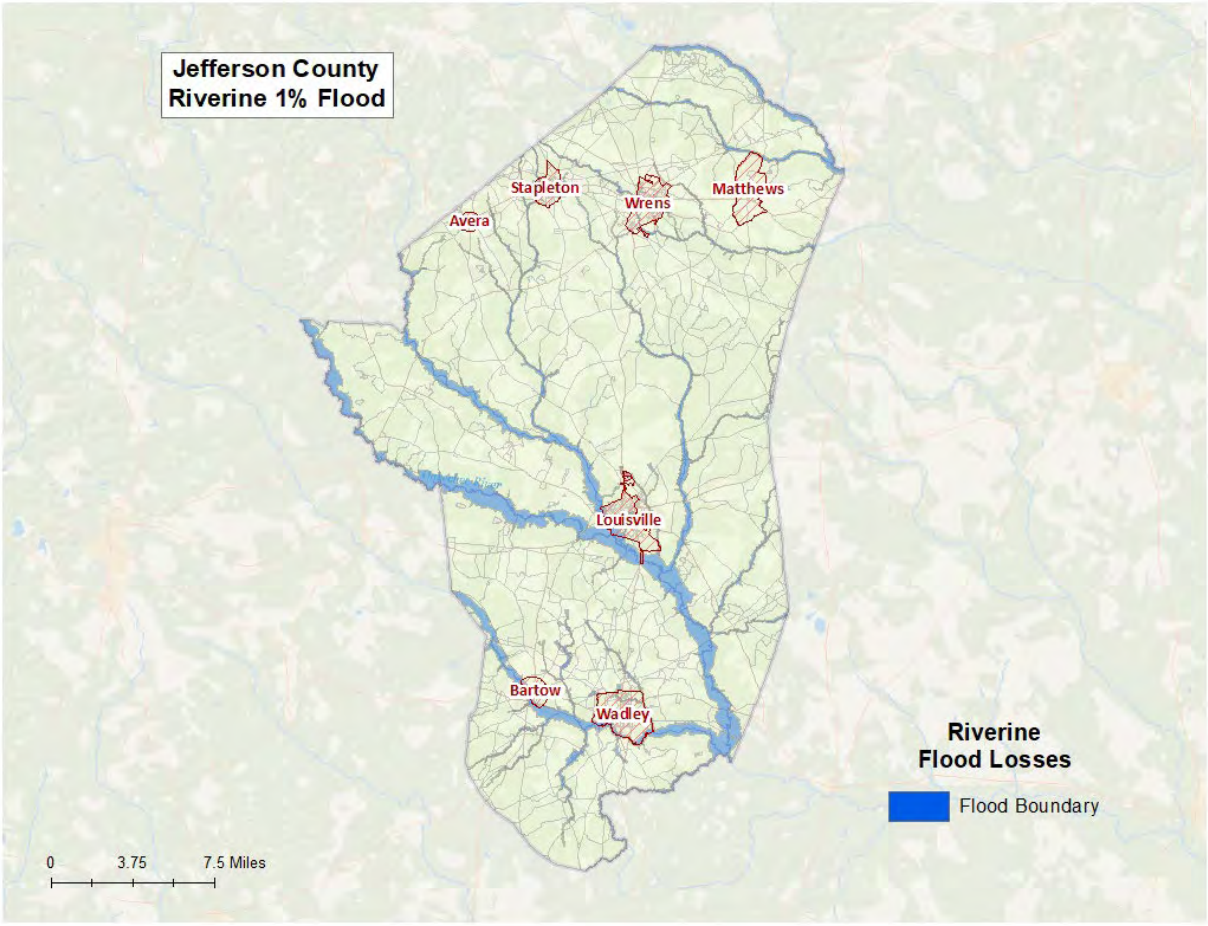


Figure 6: Riverine 1% Flood Inundation

Riverine 1% Flood Building Damages

Buildings in Jefferson 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 Jefferson 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: Jefferson 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
Bartow					
Residential	131	2	$15,746,501	$54,999	0.35%
Louisville					
Residential	928	4	$119,542,717	$111,401	0.09%
Stapleton					
Commercial	15	1	$1,671,942	$18,238	1.09%
Residential	206	1	$23,661,810	$50,043	0.21%
Wadley					
Residential	856	8	$89,204,716	$203,482	0.23%
Wrens					
Industrial	50	1	$24,594,320	$125,797	0.51%
Commercial	170	1	$42,835,976	$9,514	0.02%
Residential	859	19	$110,432,155	$438,933	0.40%
Unincorporated					
Commercial	136	4	$52,527,364	$41,634	0.08%
Industrial	107	2	$61,163,807	$57,905	0.09%
Residential	4,553	56	$426,350,839	$1,444,609	0.34%
County Total					
	8,011	**99**	**$967,732,148**	**$2,556,555**	

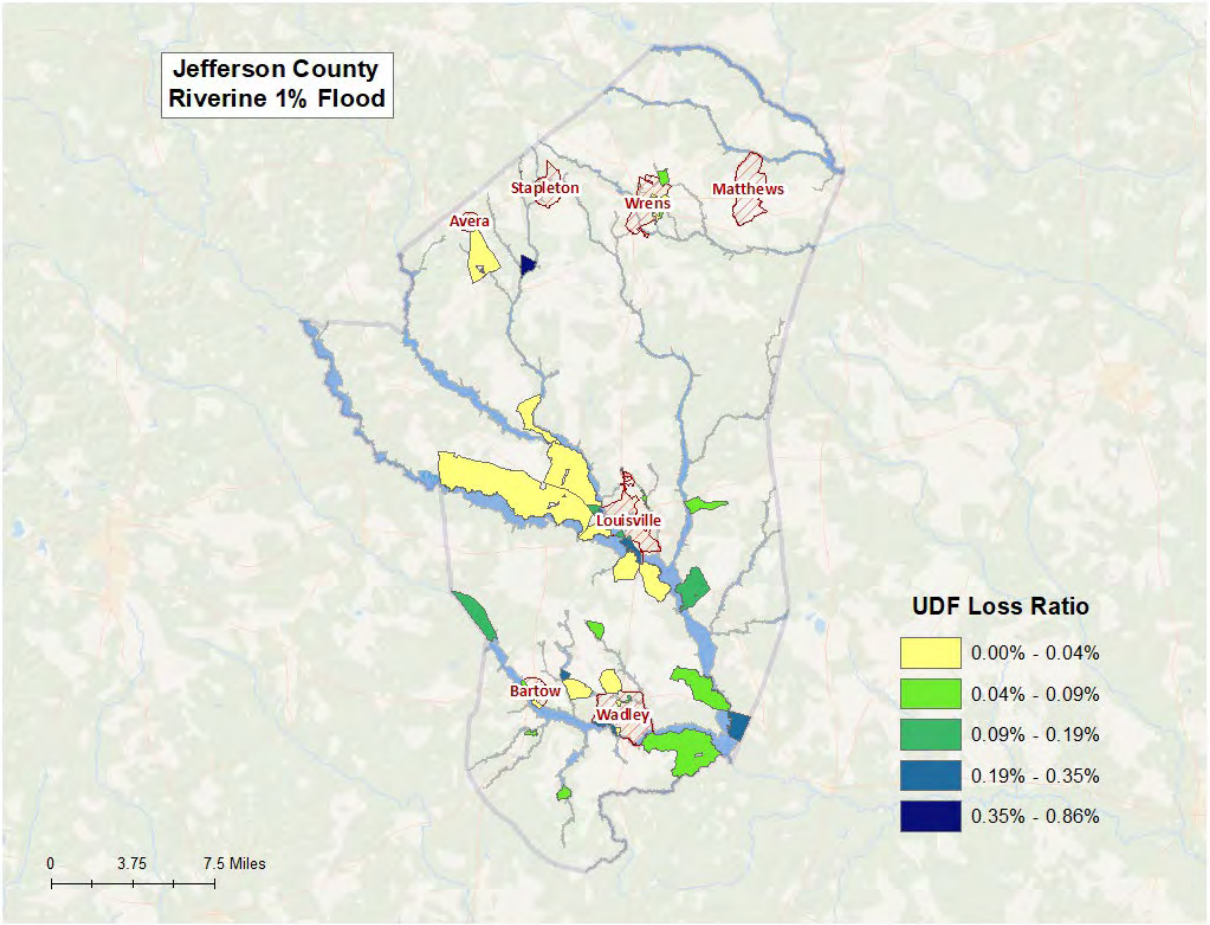


Figure 7: Jefferson County Potential Loss Ratios of Total Building Exposure to Losses Sustained to Buildings from the 1% Riverine Flood by 2010 Census Block

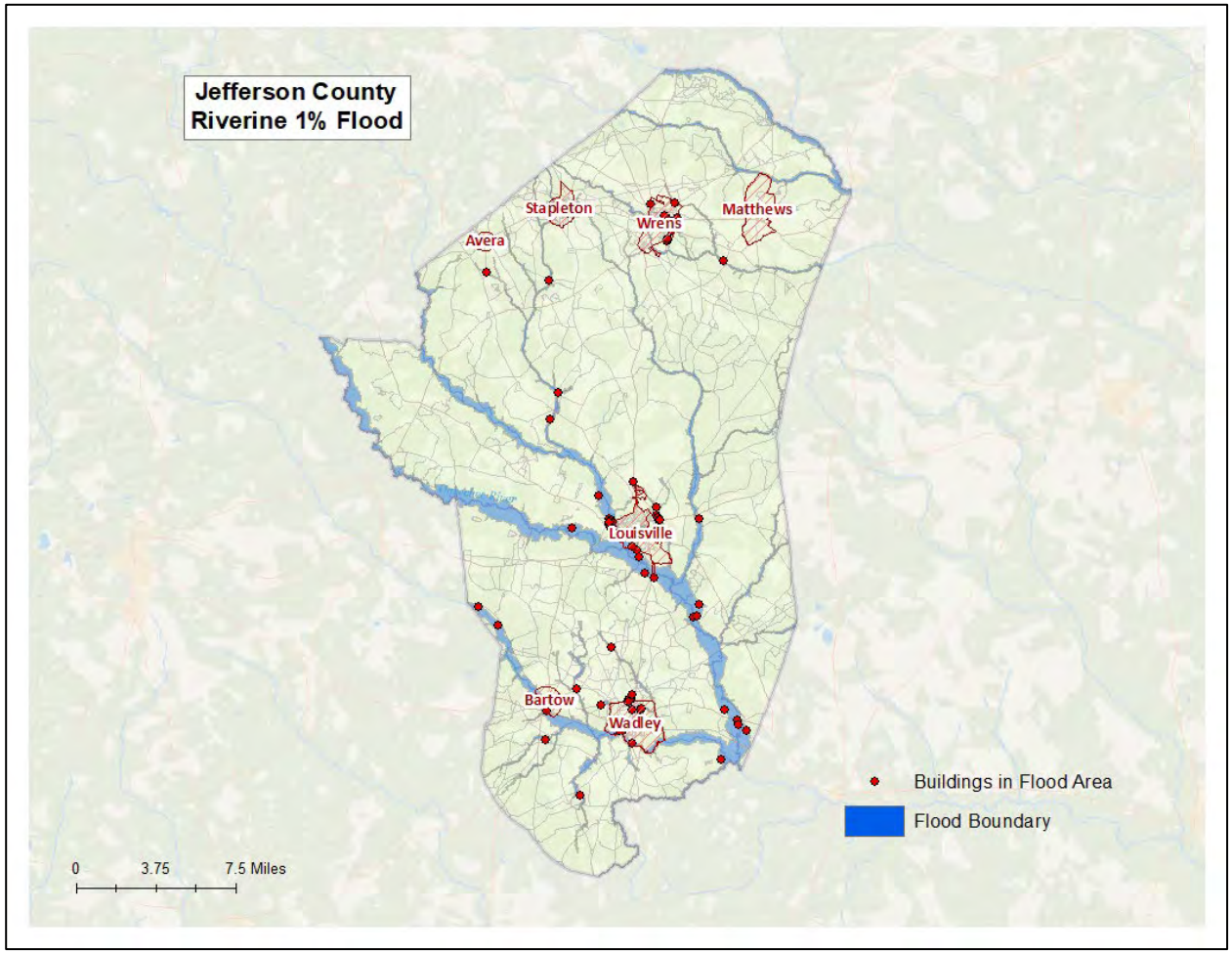


Figure 8: Jefferson County Damaged Buildings in Riverine Floodplain (1% Flood)

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 Jefferson 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 255 households might be displaced due to the flood. Displacement includes households evacuated within or very near to the inundated area. Displaced households represent 764 individuals, of which 207 may require short term publicly provided shelter. The results are mapped in Figure 9.

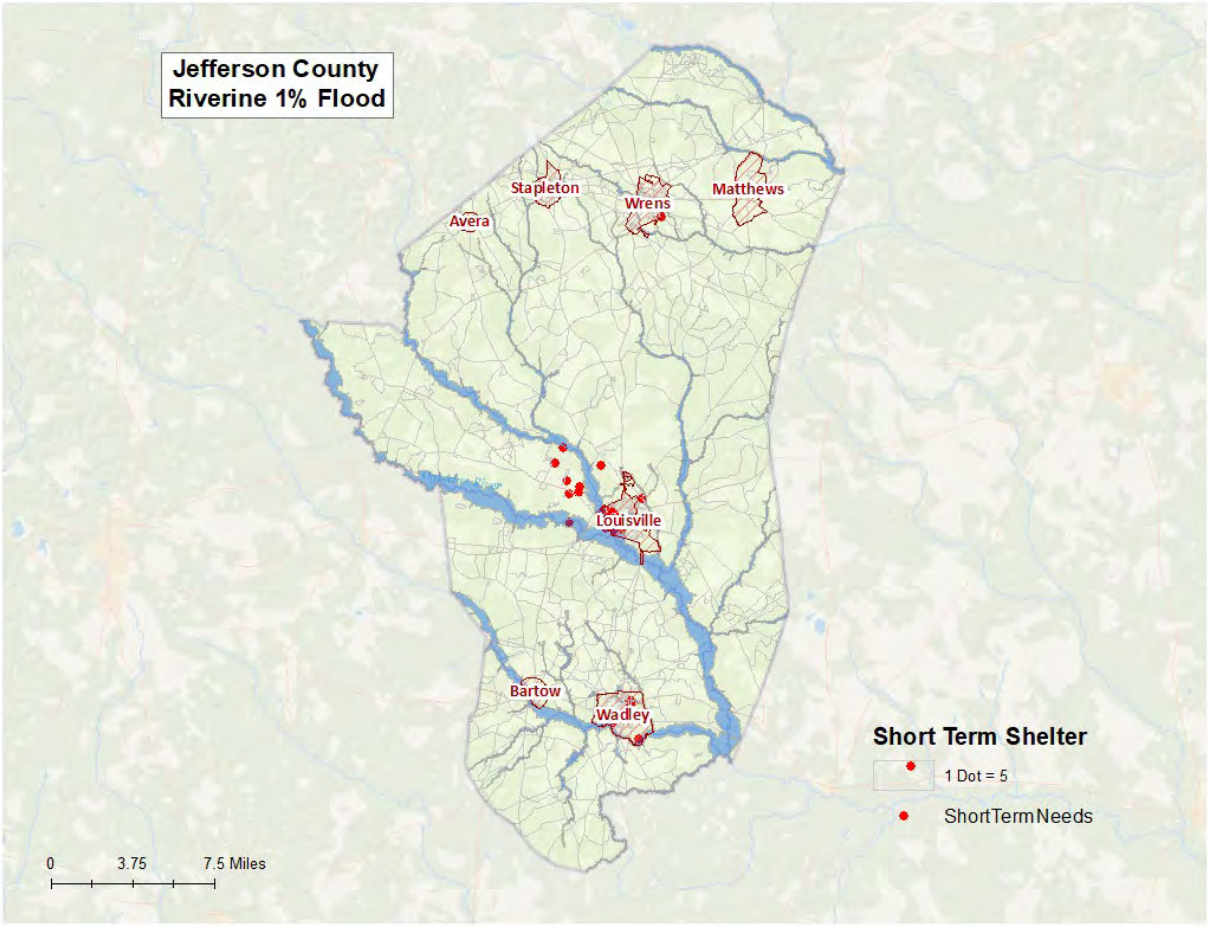


Figure 9: Riverine 1% Estimated Flood Shelter Requirements

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 7,446 tons of debris might be generated: 1) Finishes- 2,233 tons; 2) Structural – 2,371 tons; and 3) Foundations- 2,841 tons. The results are mapped in Figure 10.

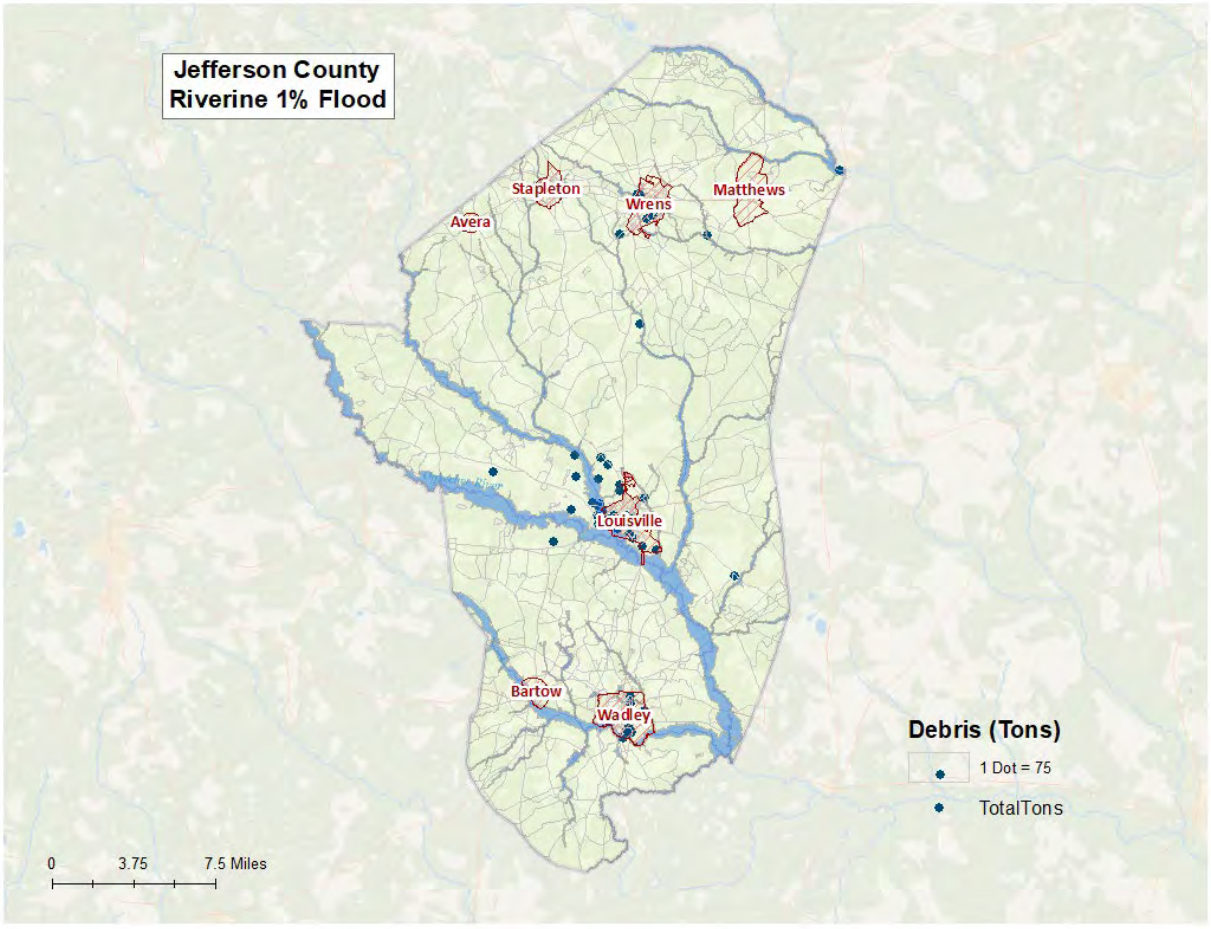


Figure 10: Riverine 1% Flood Debris Weight (Tons)

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 Wrens. 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.

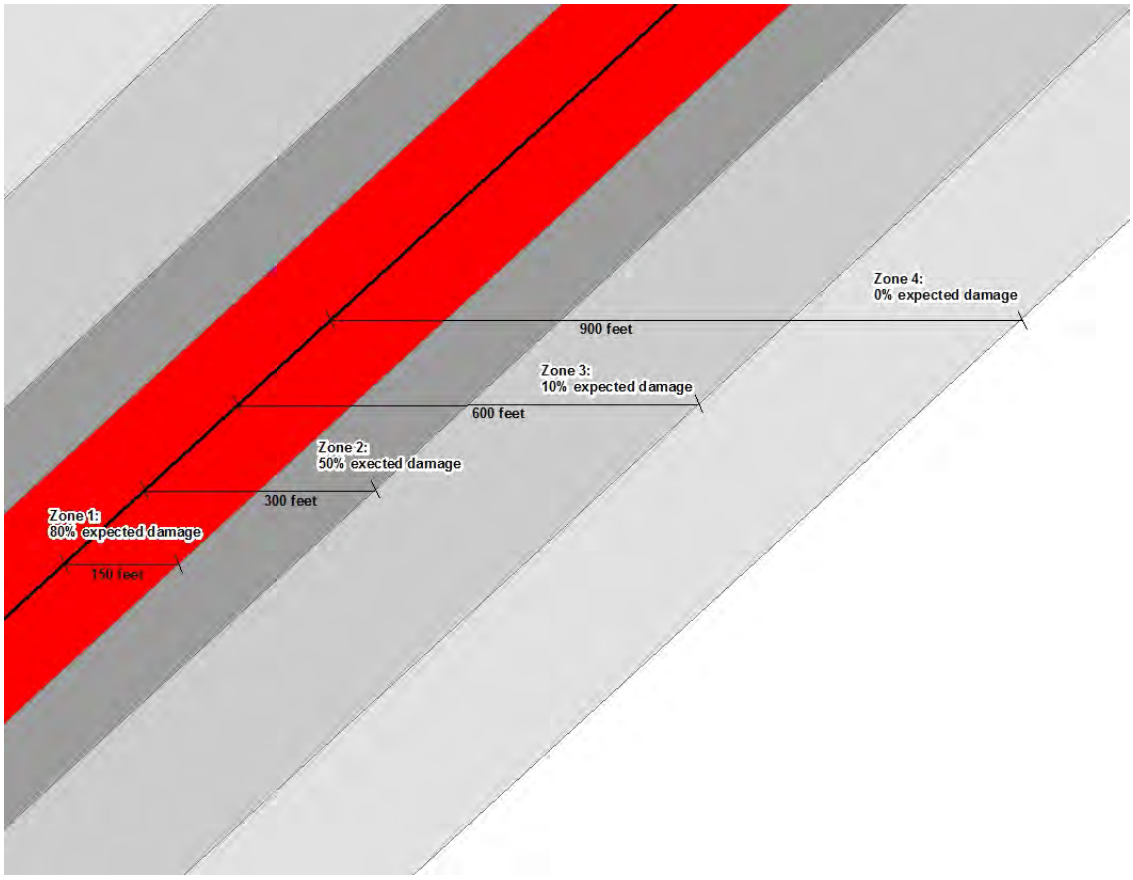


Figure 11: EF Scale Tornado Zones

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%

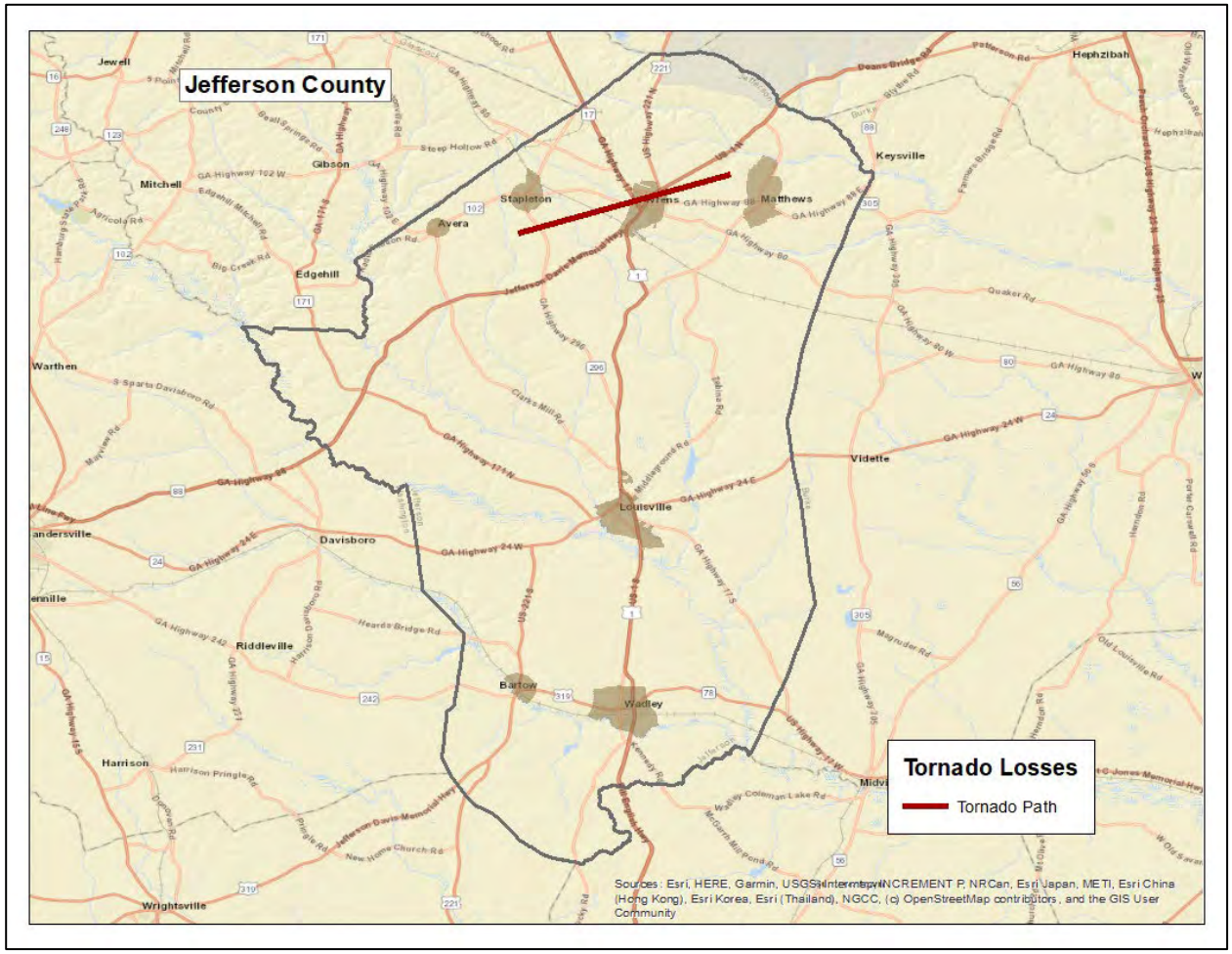


Figure 12: Hypothetical EF3 Tornado Path in Jefferson County

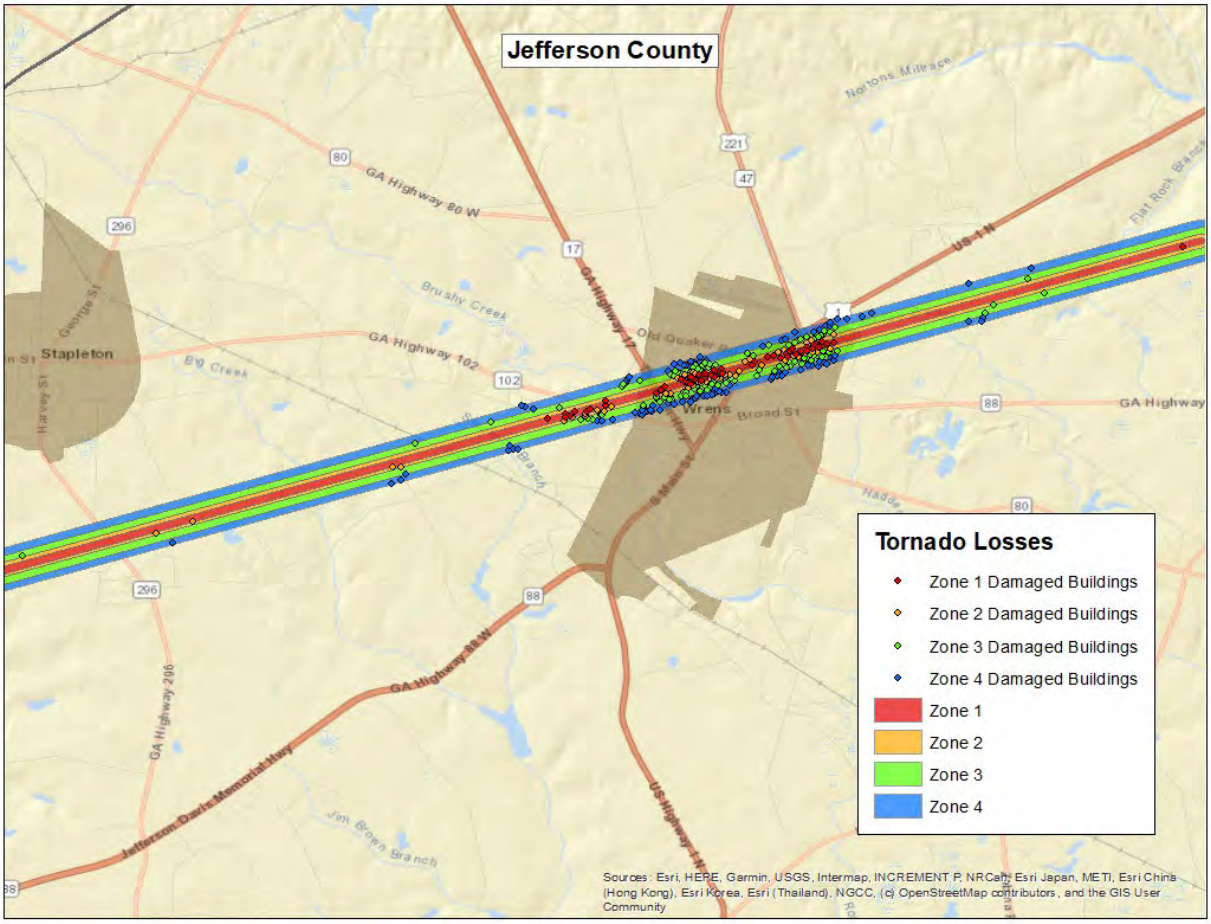


Figure 13: Modeled EF3 Tornado Damage Buffers in Jefferson County

EF3 Tornado Building Damages

The analysis estimated that approximately 358 buildings could be damaged, with estimated building losses of $19 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 Jefferson 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
Residential	295	$10,800,618
Commercial	39	$1,139,745
Industrial	5	$44,532
Religious	8	$1,429,935
Education	11	$5,818,882
Total	**358**	**$19,233,712**

EF3 Tornado Essential Facility Damage

There were two essential facilities located in the tornado path – one school and one medical care facility. Table 14 outlines the specific facility and the amount of damage under the scenario.

Table 14: Estimated Essential Facilities Damaged

Facility	Amount of Damage
Wrens Elementary School	Minor Damage
Physicians Health Group Wrens	Minor Damage

According to the Georgia Department of Education, Wrens Elementary School's enrollment was approximately 406 students as of October 2024. Depending on the time of day, a tornado strike 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.

The location of the damaged Essential Facility is mapped in Figure 14.

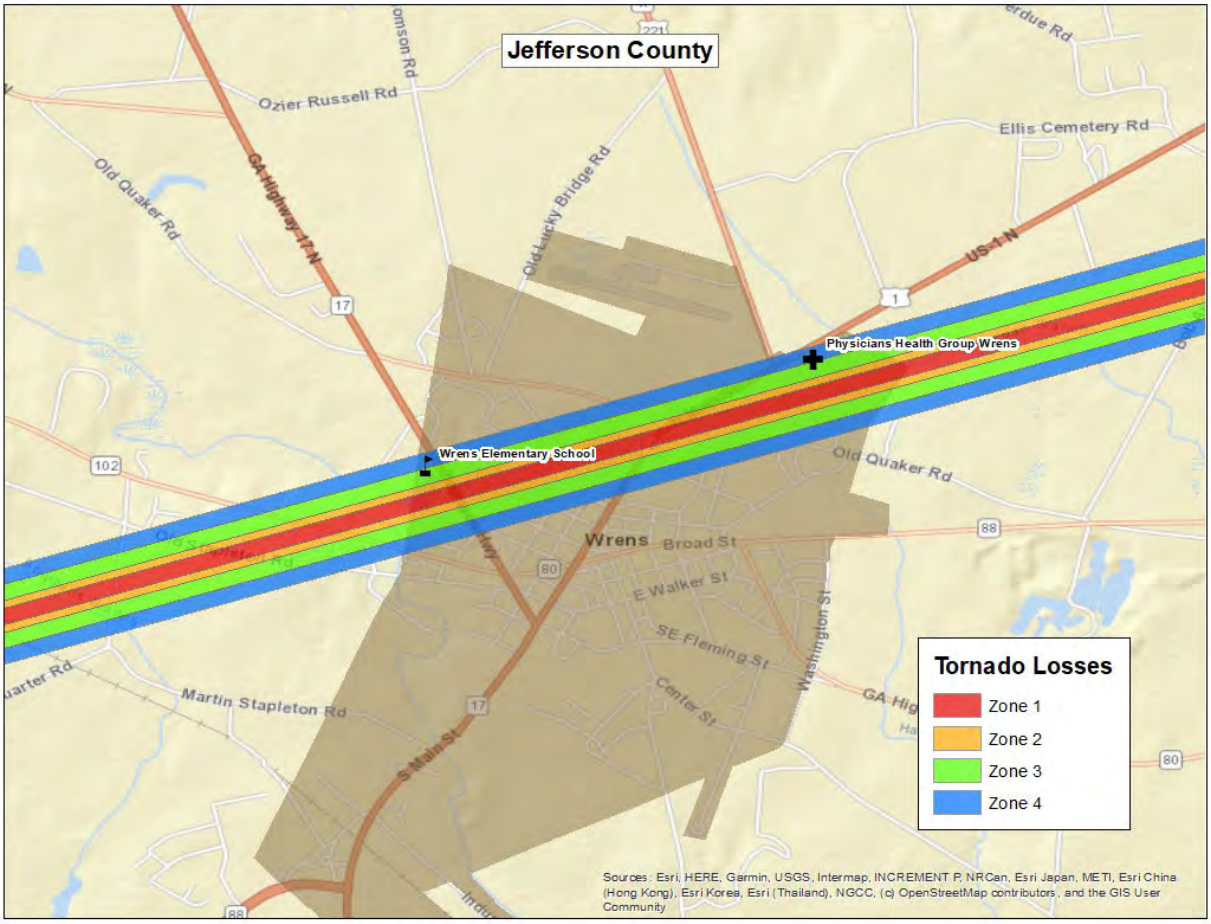


Figure 14: Modeled Essential Facility Damage in Jefferson County

Exceptions Report

Hazus Version 2.2 SP1 was used to perform the loss estimates for Jefferson 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 Jefferson County.

Updates to the Critical Facility data used in GMIS were provided by Jefferson County in September 2024. 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 Jefferson County.

Table 15: Essential Facility Updates

Site Class	Feature Class	Default Replacement Cost	Default Count	Updated Replacement Cost	Updated Count
EF	Care	$69,146,000	8	$109,146,000	8
EF	EOC	$2,380,000	1	$2,380,000	1
EF	Fire	$2,716,000	6	$9,580,000	9
EF	Police	$15,944,000	6	$14,835,000	5
EF	School	$145,930,000	7	$124,605,000	8

County Inventory Changes

The GBS records for Jefferson County were replaced with data derived from parcel and property assessment data obtained from Jefferson County. The county provided property assessment data was current as of November 2024 and the parcel data current as of October 2024.

General Building Stock Updates

The parcel boundaries and assessor records were obtained from Jefferson 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 Jefferson County was 99.7%.

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 Jefferson County records.

Table 16: Building Inventory Default Adjustment Rates

Type of Adjustment	Building Count	Percentage
Area Unknown	338	4%
Construction Unknown	1,089	12%
Condition Unknown	298	3%
Foundation Unknown	773	9%
Year Built Unknown	2,368	27%
Total Buildings	**8,927**	**11%**

Approximately 11% 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 Jefferson 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	8,927	$1,356,749,283
Riverine UDF	Structures Inside 1% Annual Chance Riverine Flood Area	114	$22,382,993

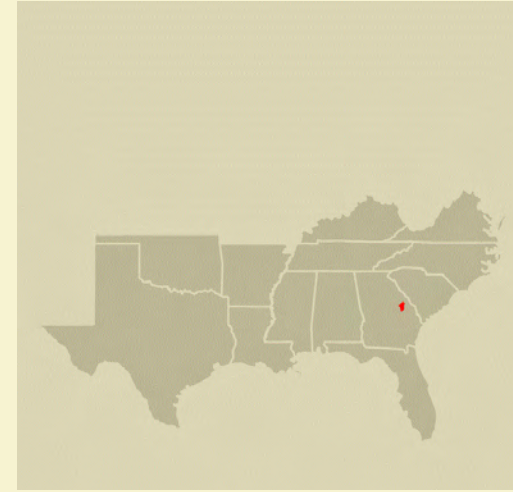
Assumptions

- 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

Southern Wildfire Risk Assessment Summary Report

Blank pages have been removed from this report to condense pdf

Jefferson County



Report was generated using
www.southernwildfirerisk.com

Report version: 5.0

Report generated: 9/20/2024

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Hold Control and Click to navigate to the section of your interest.

Disclaimer

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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.

Map Products and Descriptions

Each map product in this Summary Report is accompanied by a general description, table, chart, or map. Please see the table below for a list of data layers available in the Summary Report.

Layer	Description
Burn Probability	Burn Probability is the likelihood of wildfire burning a specific location within one calendar year or wildfire season.
Wildfire Exposure Score	Wildfire Exposure Score combines wildfire likelihood (Burn Probability) and damage to homes (Damage Potential) for all areas regardless of whether a structure currently exists at that location.
Damage Potential	Damage Potential represents the possible damage from wildfire to a home or parcel considering both fire intensity and embers from nearby fuel.
Housing Unit Density	This layer displays housing unit density measured in housing units per square kilometer.
Housing Unit Impact	Housing Unit Impact represents the relative potential impact to housing units if a fire were to occur.
Housing Unit Risk	Housing Unit Risk represents the relative potential risk to housing units.
Sources of Ember Load to Buildings	This layer displays the potential for fuel to be a source of embers to buildings.
Functional Wildland Urban Interface	This dataset classifies the land near buildings into wildfire risk mitigation zones.
Characteristic Fire Intensity Scale	Quantifies the potential fire intensity by orders of magnitude as determined by fuel and a range of possible wind and weather conditions.
95th Percentile Fire Intensity Scale	95th Percentile (Average-Worst) Fire Intensity Scale quantifies fire intensity by orders of magnitude as determined by the worst five percent of wind and weather conditions.
Characteristic Flame Length	Flame length measures the height of flames as determined by fuel and a range of possible wind and weather conditions.
95th Percentile Flame Length	95th Percentile (Average-Worst) Flame Length measures the height of flames as determined by the worst five percent of wind and weather conditions.
Characteristic Rate of Spread	This layer represents the rate of spread (ROS) as determined by fuel and weather characteristics across a full range of possible wind and weather conditions.
95th Percentile Rate of Spread	95th Percentile (Average-Worst) Rate of Spread measures the rate of spread as determined by the worst five percent of wind and weather conditions.
Probability of Crown Fire	This layer shows the likelihood of experiencing at least mid-grade passive crown fire.

Layer	Description
Probability of Exceeding Manual Control	This layer shows the likelihood that flames at the head of the fire will exceed 4 feet, which is generally considered the limit for manual fire control.
Probability of Exceeding Mechanical Control	This layer shows the likelihood that flames at the head of the fire will exceed 8 feet, which is considered the limit for mechanical fire control in fire operations.
Probability of Extreme Fire Behavior	This layer shows the likelihood that flames at the head of the fire will exceed 11 feet, which is considered threshold for extreme fire behavior in fire operations.
Suppression Difficulty Index	Suppression Difficulty Index provides a rating of relative difficulty in performing wildfire control work considering factors like terrain, access, fuel, and fire behavior.
Wildfire Hazard Potential	Wildfire Hazard Potential maps challenges to wildfire control and includes information such as Burn Probability, small-fire ignition density, fire intensity measures, and fuel/vegetation type.
Conditional Ember Production Index	A relative index of the potential ember production if a fire were to occur.
Conditional Ember Load Index	A relative index of the potential for a location to receive embers from surrounding land if a fire were to occur.
Surface Fuels	Contains the parameters needed to compute surface fire behavior characteristics.
Percent Slope	Percent Slope measures the rate of change of elevation over a given horizontal distance, expressed as a percent.

Wildfire Hazard

The information in this section of the report describes the annual likelihood of wildfire based on fire modeling, and two integrated hazard layers characterizing wildfire risk to homes, including a measure of ember load from nearby fuel.

Contents:

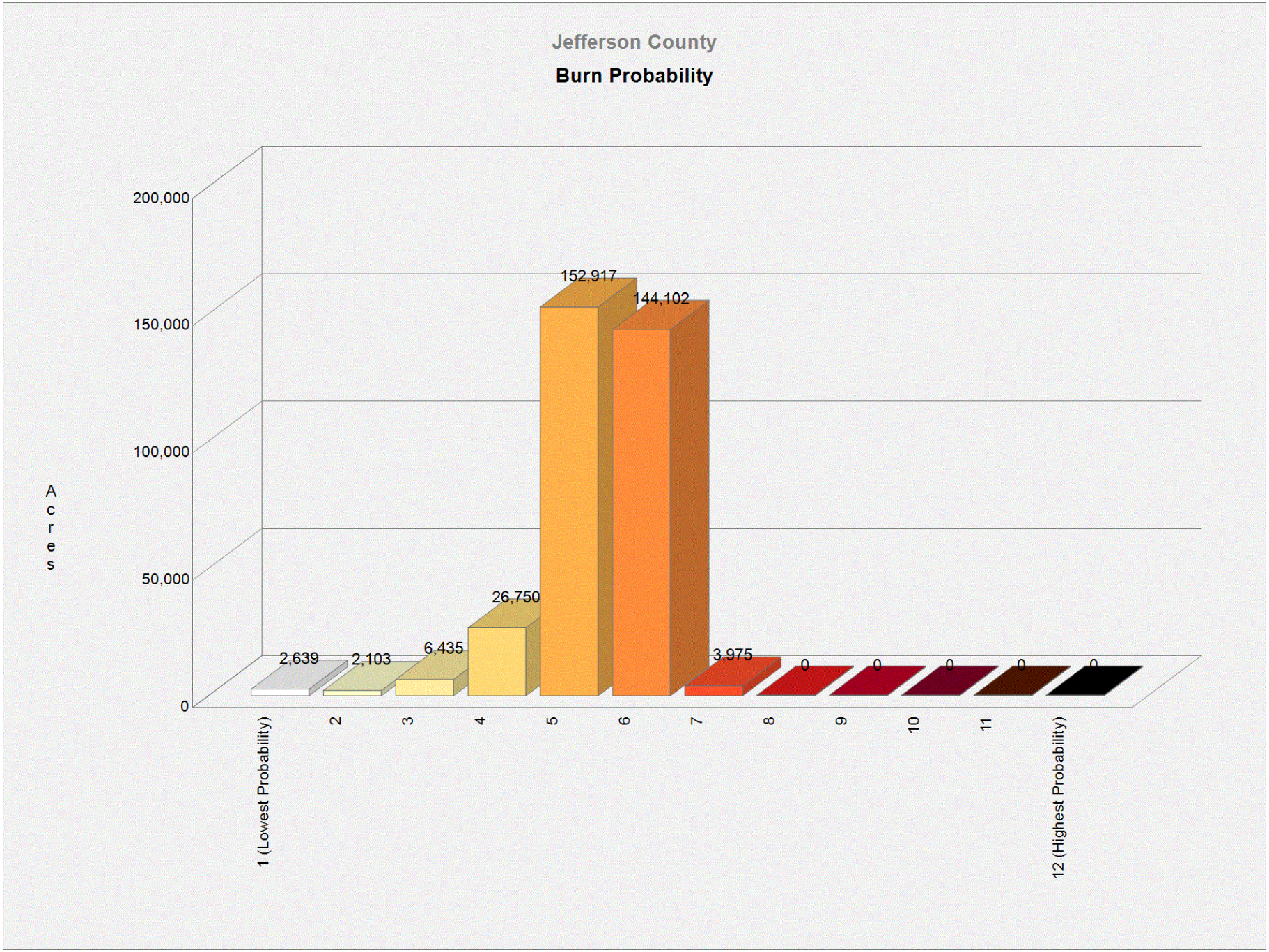
Burn Probability

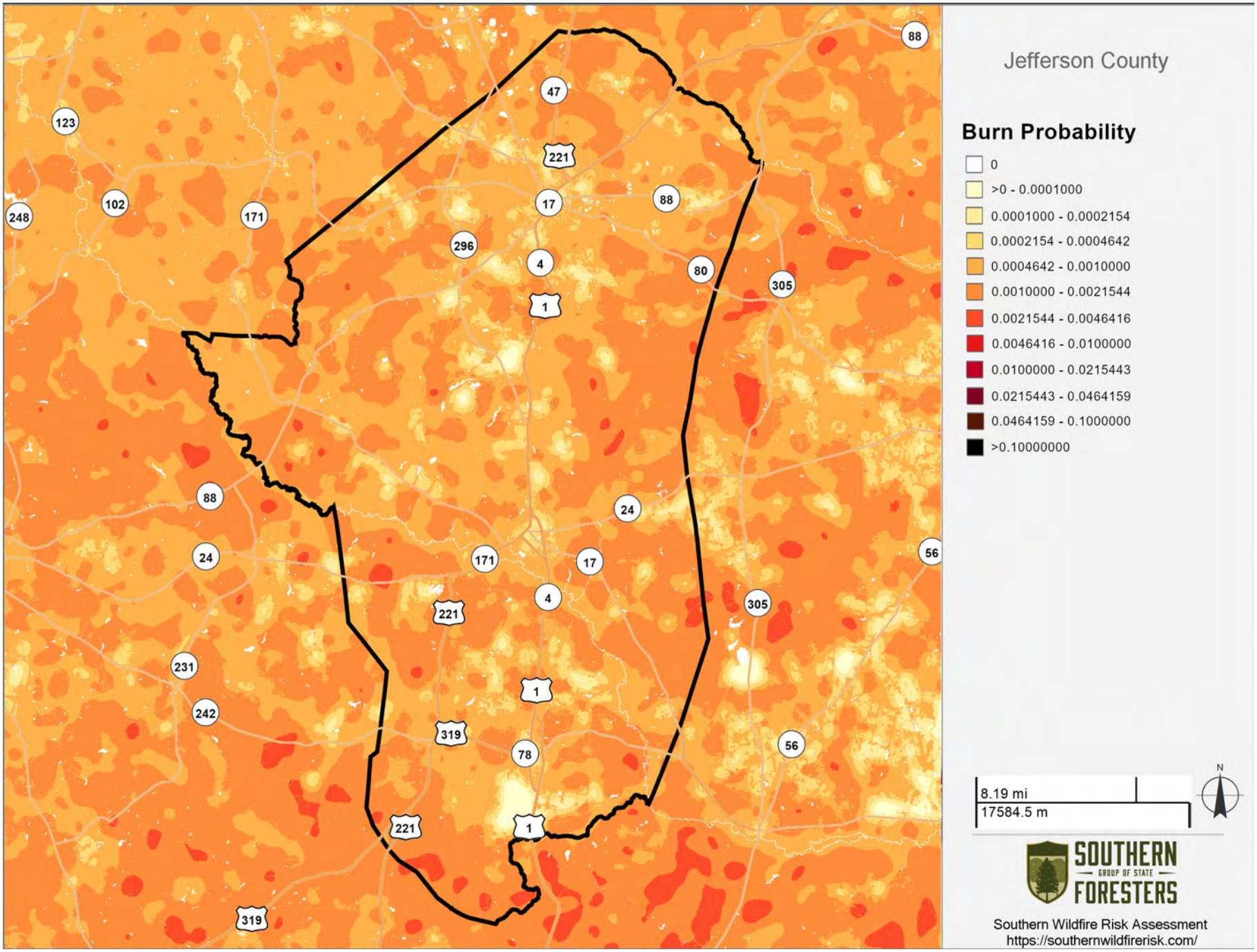
Burn probability is the likelihood of wildfire burning a specific location within a set time frame - commonly represented as the chance of burning during one calendar year or wildfire season.

Burn Probability can be expressed as a fraction (ex. 0.005) or odds (1-in-200) and is based on fire behavior modeling across thousands of simulations of possible fire seasons. In each simulation, factors contributing to the probability of a fire occurring, including weather and ignition likelihood are varied based on patterns derived from observations in recent decades. It is not predictive and does not reflect any currently forecasted weather or fire danger conditions. Burn Probability does not say anything about the intensity of fire if it occurs.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Burn Probability Category	Acres	Percent
	0	2,639	0.8 %
	>0 - 0.0001000	2,103	0.6 %
	0.0001000 - 0.0002154	6,435	1.9 %
	0.0002154 - 0.0004642	26,750	7.9 %
	0.0004642 - 0.0010000	152,917	45.1 %
	0.0010000 - 0.0021544	144,102	42.5 %
	0.0021544 - 0.0046416	3,975	1.2 %
	0.0046416 - 0.0100000	0	0.0 %
	0.0100000 - 0.0215443	0	0.0 %
	0.0215443 - 0.0464159	0	0.0 %
	0.0464159 - 0.1000000	0	0.0 %
	>0.10000000	0	0.0 %
	Total	**338,921**	**100.0 %**


Jefferson County
Burn Probability
200,000
150,000
100,000
50,000
0
Acres
2,639
2,103
6,435
26,750
152,917
144,102
3,975
0
0
0
0
0
1 (Lowest Probability)
2
3
4
5
6
7
8
9
10
11
12 (Highest Probability)


Jefferson County
Burn Probability
0
>0 - 0.0001000
0.0001000 - 0.0002154
0.0002154 - 0.0004642
0.0004642 - 0.0010000
0.0010000 - 0.0021544
0.0021544 - 0.0046416
0.0046416 - 0.0100000
0.0100000 - 0.0215443
0.0215443 - 0.0464159
0.0464159 - 0.1000000
>0.10000000
8.19 mi
17584.5 m
N
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Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

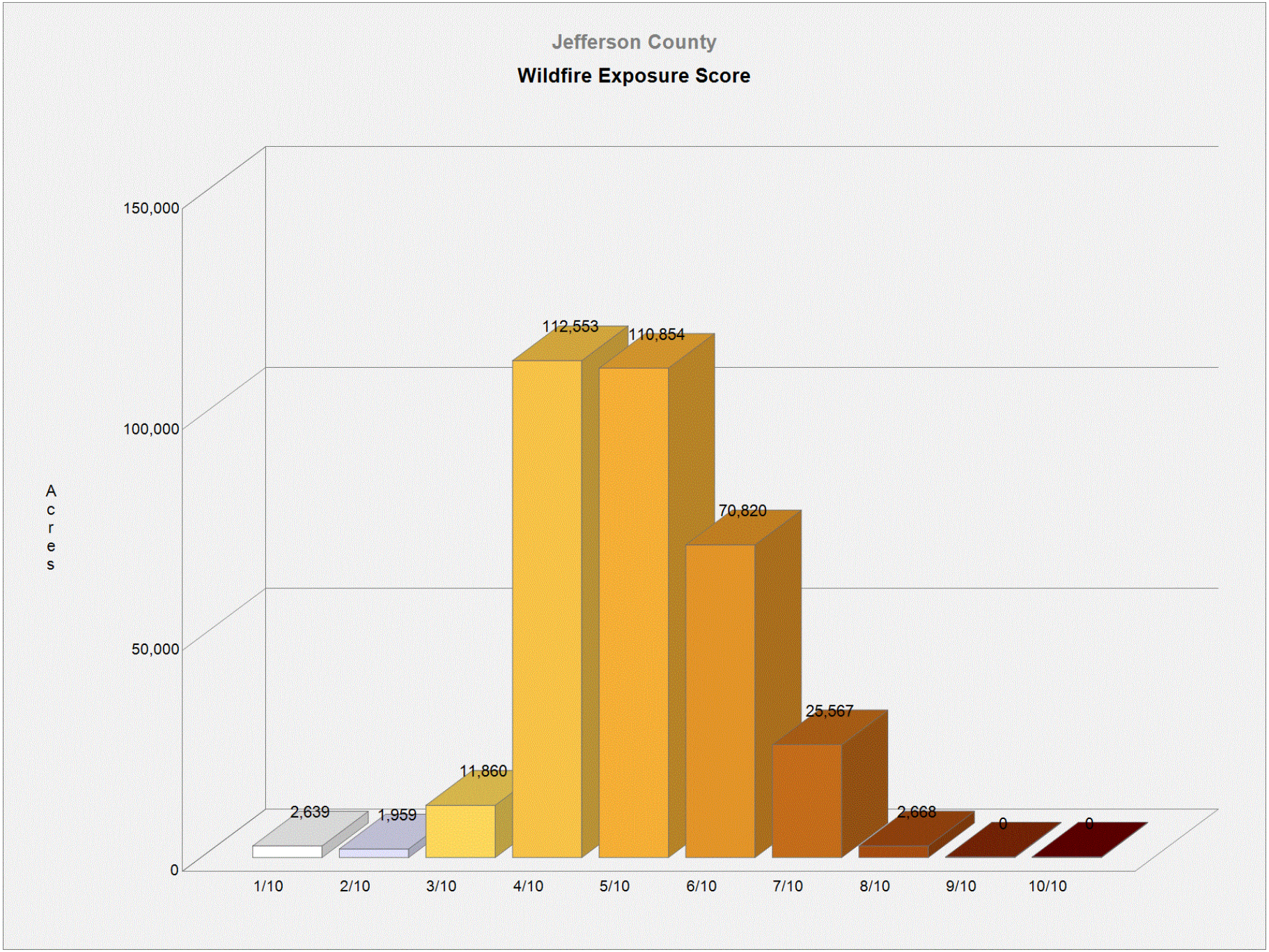
Wildfire Exposure Score

Wildfire Exposure Score combines two important wildfire factors related to structure exposure: the chance of wildfire (Burn Probability – defined as the likelihood of wildfire burning a specific location within a calendar year or wildfire season) and the potential damage to homes from wildfire (Damage Potential – defined as an estimate of damage that a wildfire could cause to homes considering both fire intensity and embers from nearby fuel).

Exposure scores are provided for all areas regardless of whether a structure currently exists at that location.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Wildfire Exposure Score Category	Acres	Percent
	1/10	2,639	0.8 %
	2/10	1,959	0.6 %
	3/10	11,860	3.5 %
	4/10	112,553	33.2 %
	5/10	110,854	32.7 %
	6/10	70,820	20.9 %
	7/10	25,567	7.5 %
	8/10	2,668	0.8 %
	9/10	0	0.0 %
	10/10	0	0.0 %
	Total	**338,920**	**100.0 %**


Jefferson County
Wildfire Exposure Score
Acres
150,000
100,000
50,000
0
2,639
1,959
11,860
112,553
110,854
70,820
25,567
2,668
0
0
1/10
2/10
3/10
4/10
5/10
6/10
7/10
8/10
9/10
10/10

Damage Potential

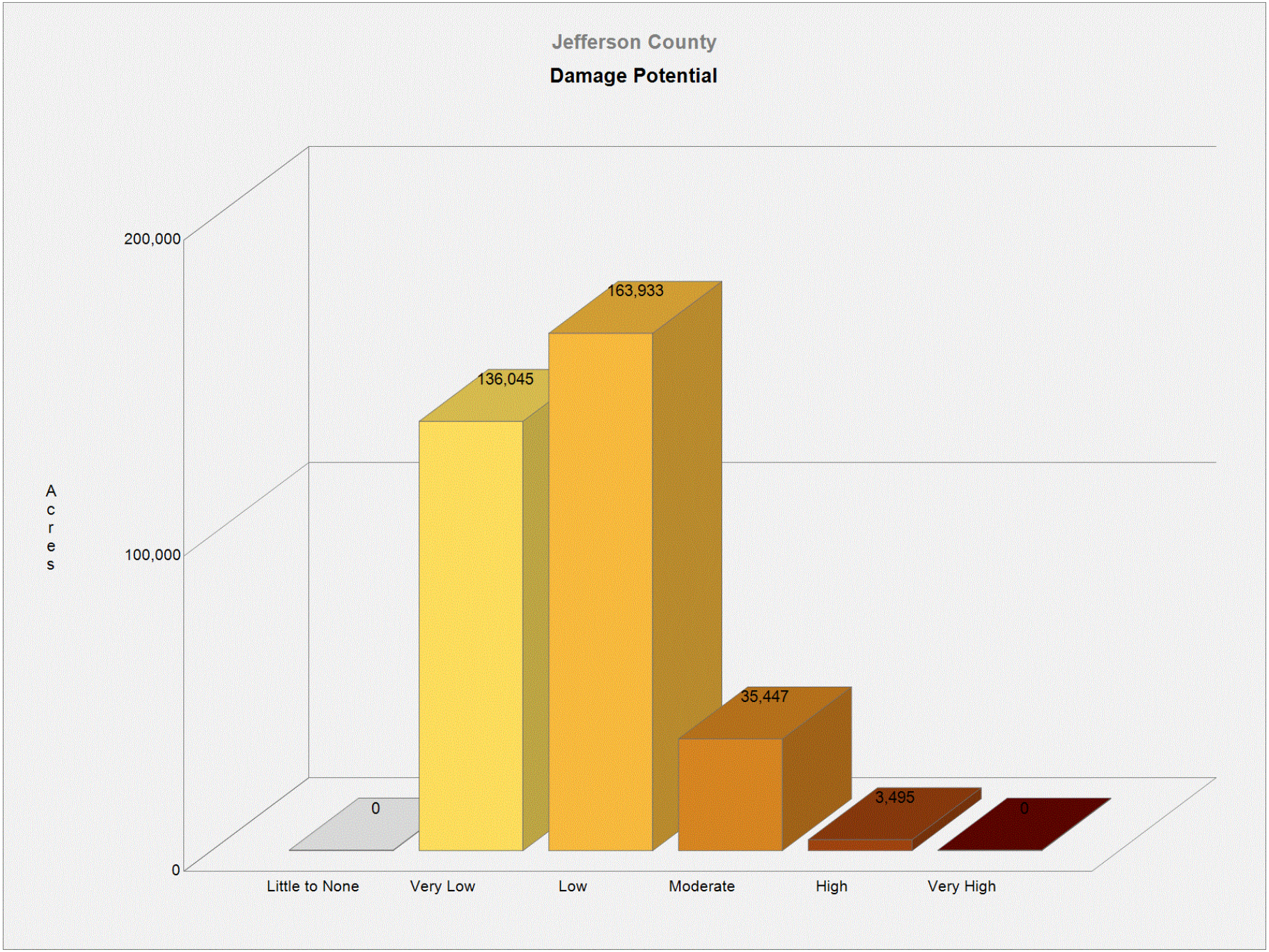
Damage Potential provides an index of potential damage to homes from wildfire. It considers factors like flame length and embers lofted from nearby fuel.

Damage Potential is a relative index (from low to high), that provides a broad measure of the possible damage from wildfire, based generally on the landscape, rather than specific characteristics of a home or parcel. For planning uses and broad applications, the index is calculated for all areas regardless of whether a structure currently exists at that location. This index does not incorporate a measure of wildfire likelihood.

Damage Potential is a fire-effects measure and includes flame-length estimates that reflect all spread directions (heading, backing, and flanking). Intensities from nonheading spread directions are considerably lower than those at the head of the fire.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Damage Potential Category	Acres	Percent
	Little to None	0	0.0 %
	Very Low	136,045	40.1 %
	Low	163,933	48.4 %
	Moderate	35,447	10.5 %
	High	3,495	1.0 %
	Very High	0	0.0 %
	Total	**338,920**	**100.0 %**


Jefferson County
Damage Potential
Acres
200,000
100,000
0
0
136,045
163,933
35,447
3,495
0
Little to None
Very Low
Low
Moderate
High
Very High

Risk to Homes and Communities

The information in this section provides useful information for communities to help prepare for and prevent wildfires.

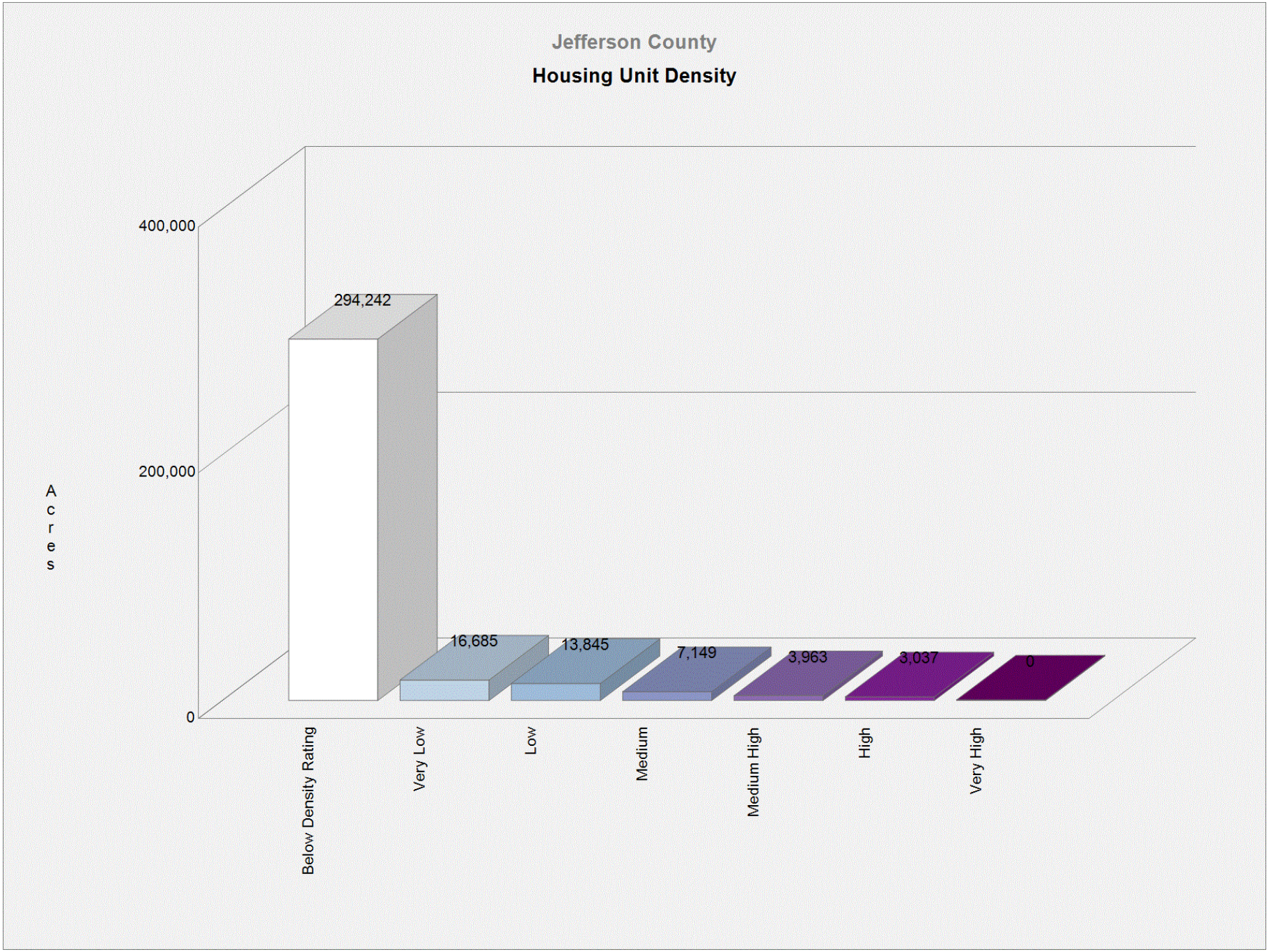
Contents:

Housing Unit Density

This layer displays housing unit density measured in housing units per square kilometer and reflects 2020 estimates of housing unit counts from the U.S. Census Bureau, combined with building footprint data from Onegeo and USA Structures - both reflecting 2022 conditions.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Housing Unit Density Category	Acres	Percent
	Below Density Rating	294,242	86.8 %
	Very Low	16,685	4.9 %
	Low	13,845	4.1 %
	Medium	7,149	2.1 %
	Medium High	3,963	1.2 %
	High	3,037	0.9 %
	Very High	0	0.0 %
	Total	**338,921**	**100.0 %**

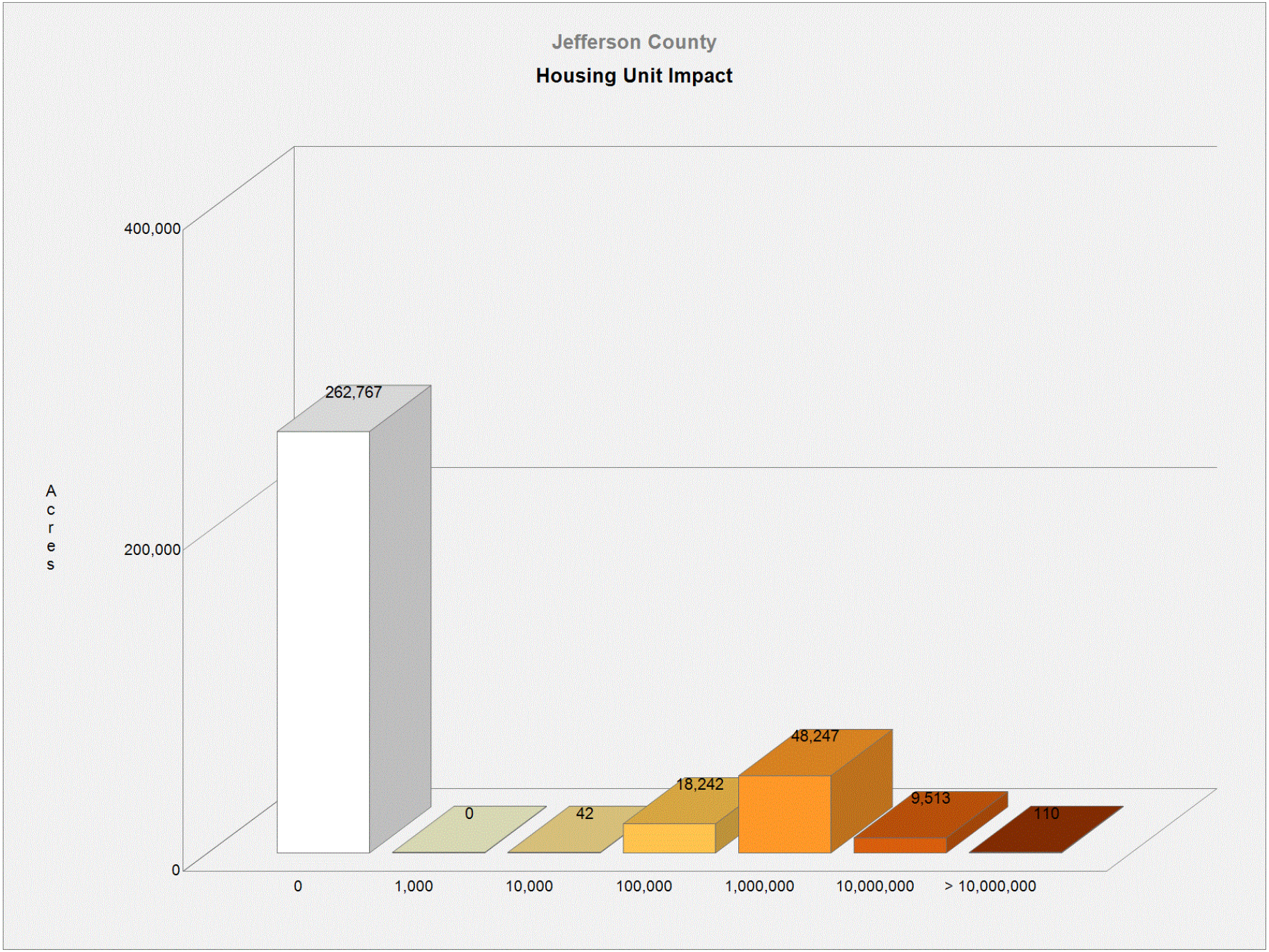

Jefferson County
Housing Unit Density
400,000
200,000
0
Acres
294,242
16,685
13,845
7,149
3,963
3,037
0
Below Density Rating
Very Low
Low
Medium
Medium High
High
Very High

Housing Unit Impact

This dataset represents the relative potential impact to housing units if a fire were to occur. Housing Unit Impact (HUImpact) incorporates housing-unit counts with the general consequences of fire on a home as a function of fire intensity. HUImpact does not include fire likelihood and does not reflect individual structure mitigations that would influence susceptibility.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Housing Unit Impact Category	Acres	Percent
	0	262,767	77.5 %
	1,000	0	0.0 %
	10,000	42	0.0 %
	100,000	18,242	5.4 %
	1,000,000	48,247	14.2 %
	10,000,000	9,513	2.8 %
	> 10,000,000	110	0.0 %
	Total	**338,921**	**100.0 %**


Jefferson County
Housing Unit Impact
Acres
400,000
200,000
0
262,767
0
42
18,242
48,247
9,513
110
0
1,000
10,000
100,000
1,000,000
10,000,000
> 10,000,000

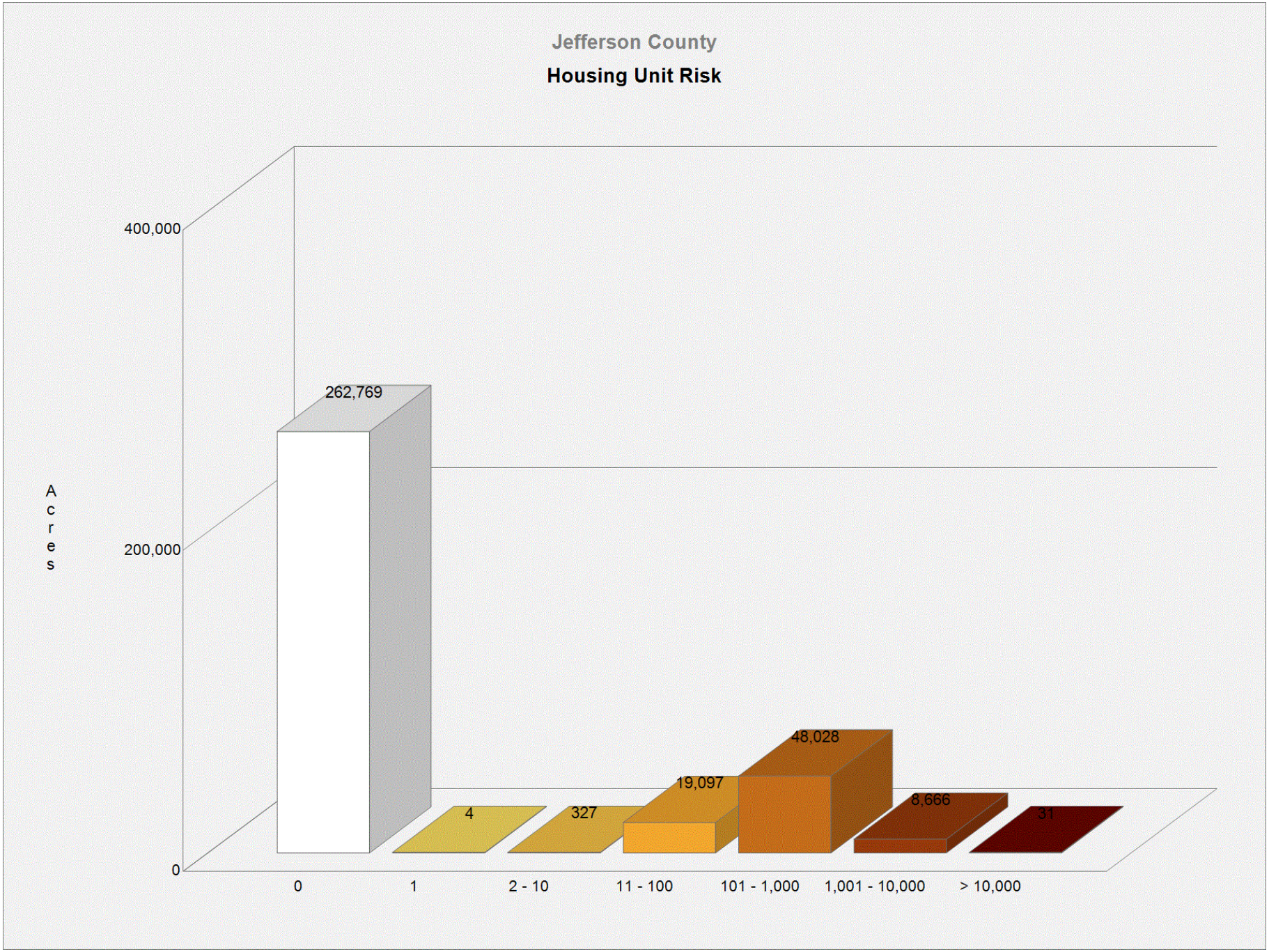
Housing Unit Risk

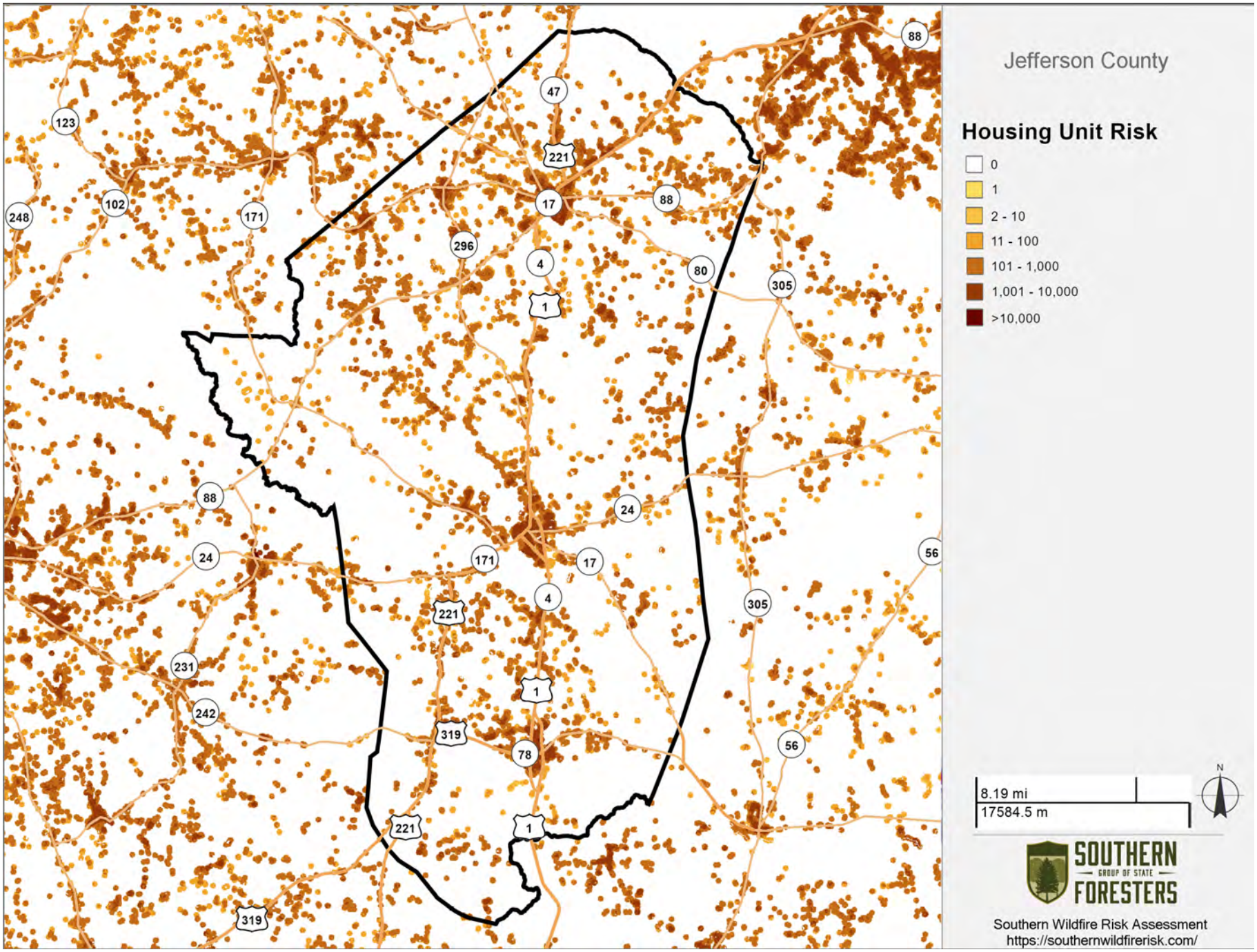
Housing Unit Risk (HURisk) represents the potential risk to housing units and incorporates both the general consequences of fire on a home as a function of fire intensity, and Burn Probability as a measure of wildfire likelihood. HURisk does not reflect individual structure mitigations that would influence susceptibility.

Housing Unit Risk integrates all four primary elements of wildfire risk - likelihood, intensity, susceptibility, and exposure - on pixels where housing unit density is greater than zero.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Housing Unit Risk Category	Acres	Percent
	0	262,769	77.5 %
	1	4	0.0 %
	2 - 10	327	0.1 %
	11 - 100	19,097	5.6 %
	101 - 1,000	48,028	14.2 %
	1,001 - 10,000	8,666	2.6 %
	> 10,000	31	0.0 %
	Total	**338,922**	**100.0 %**


Jefferson County
Housing Unit Risk
Acres
400,000
200,000
0
262,769
4
327
19,097
48,028
8,666
31
0
1
2 - 10
11 - 100
101 - 1,000
1,001 - 10,000
> 10,000


Jefferson County
Housing Unit Risk
0
1
2 - 10
11 - 100
101 - 1,000
1,001 - 10,000
>10,000
8.19 mi
17584.5 m
N
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Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

Sources of Ember Load to Buildings

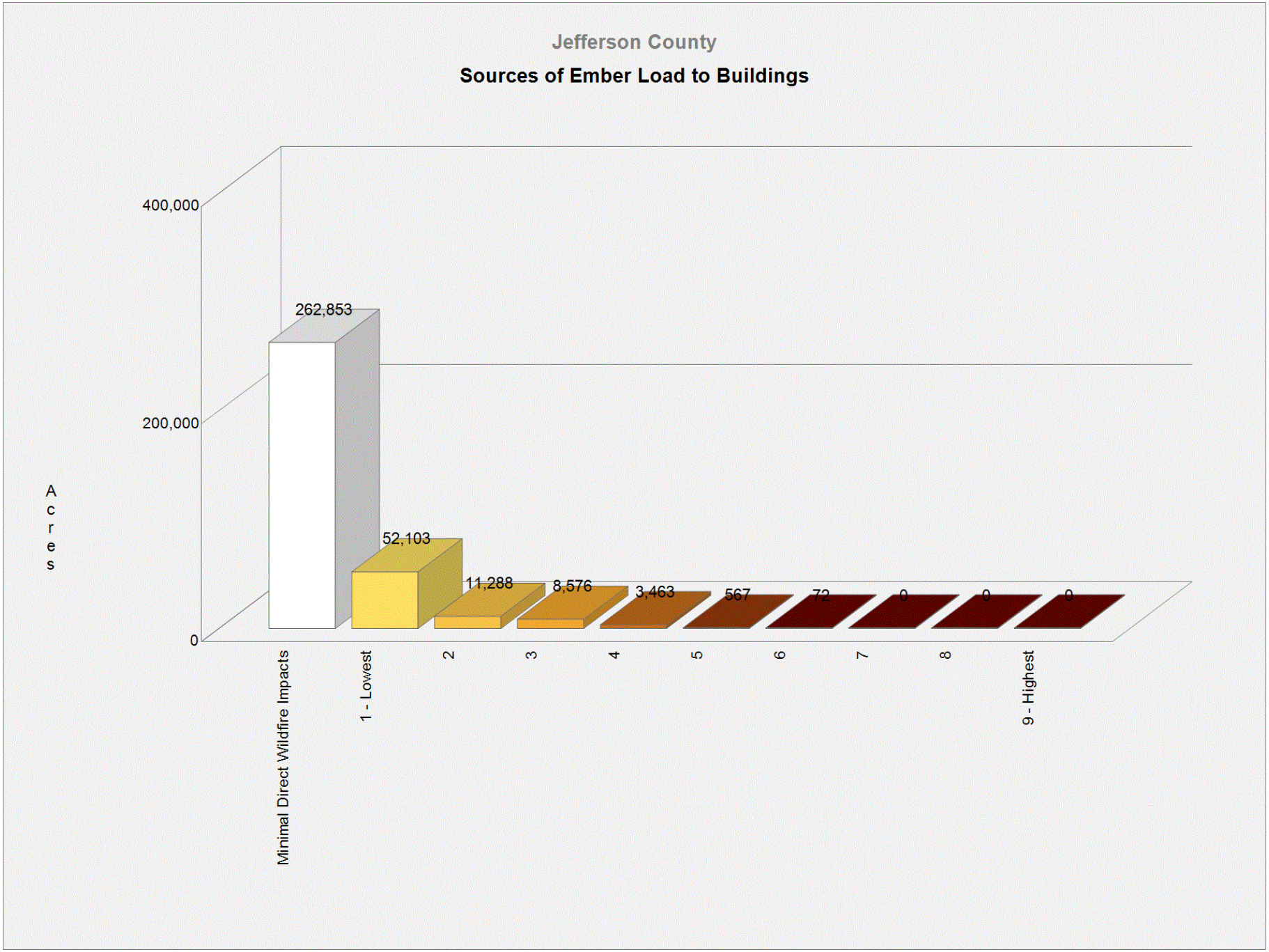
Sources of Ember Load to Buildings (SELB) is a relative index of the potential for fuel to produce embers that land where buildings are located, given that a fire occurs.

SELB identifies burnable land cover that produces embers capable of reaching nearby buildings. Units are an index of the relative number of embers rather than a count of embers produced. Ember production is a function of fire type and intensity; ember travel is a function of wind speed and direction. Ember modeling is based on fire modeling from WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). WildEST results reflect how often weather conditions occur and capture the influence of high-spread conditions. SELB is based on heading-only fire behavior and does not include the likelihood of wildfire.

The Sources of Ember Load to Buildings layer is useful for prioritizing mitigation actions to reduce the potential for ember damage to buildings.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Sources of Ember Load to Buildings Category	Acres	Percent
	Minimal Direct Wildfire Impacts	262,853	77.6 %
	1 - Lowest	52,103	15.4 %
	2	11,288	3.3 %
	3	8,576	2.5 %
	4	3,463	1.0 %
	5	567	0.2 %
	6	72	0.0 %
	7	0	0.0 %
	8	0	0.0 %
	9 - Highest	0	0.0 %
	Total	**338,922**	**100.0 %**


Jefferson County
Sources of Ember Load to Buildings
400,000
200,000
0
Acres
262,853
52,103
11,288
8,576
3,463
567
72
0
0
0
Minimal Direct Wildfire Impacts
1 - Lowest
2
3
4
5
6
7
8
9 - Highest

Functional Wildland Urban Interface (WUI)

Functional WUI represents a classification of the land near buildings* into zones that describe the wildfire risk mitigation activities appropriate for each zone.

1: Direct Exposure--Burnable land cover within 75 m of a building. Buildings in this zone are exposed to ignition from convective and radiative heat from a wildfire, embers, and adjacent burning structures/outbuildings.

2: Indirect Exposure--Nonburnable land cover within 75 m of a building and less than 1530 m from a 500-ha contiguous block of wildland fuel. Buildings in this zone are exposed to ignition from embers and/or adjacent burning structures

3: Little-to-no Exposure--Nonburnable land cover within 75 m of a building and more than 1530 m from a 500-ha contiguous block of wildland fuel. Buildings in this zone are relatively safe from ember ignition and building-to-building spread.

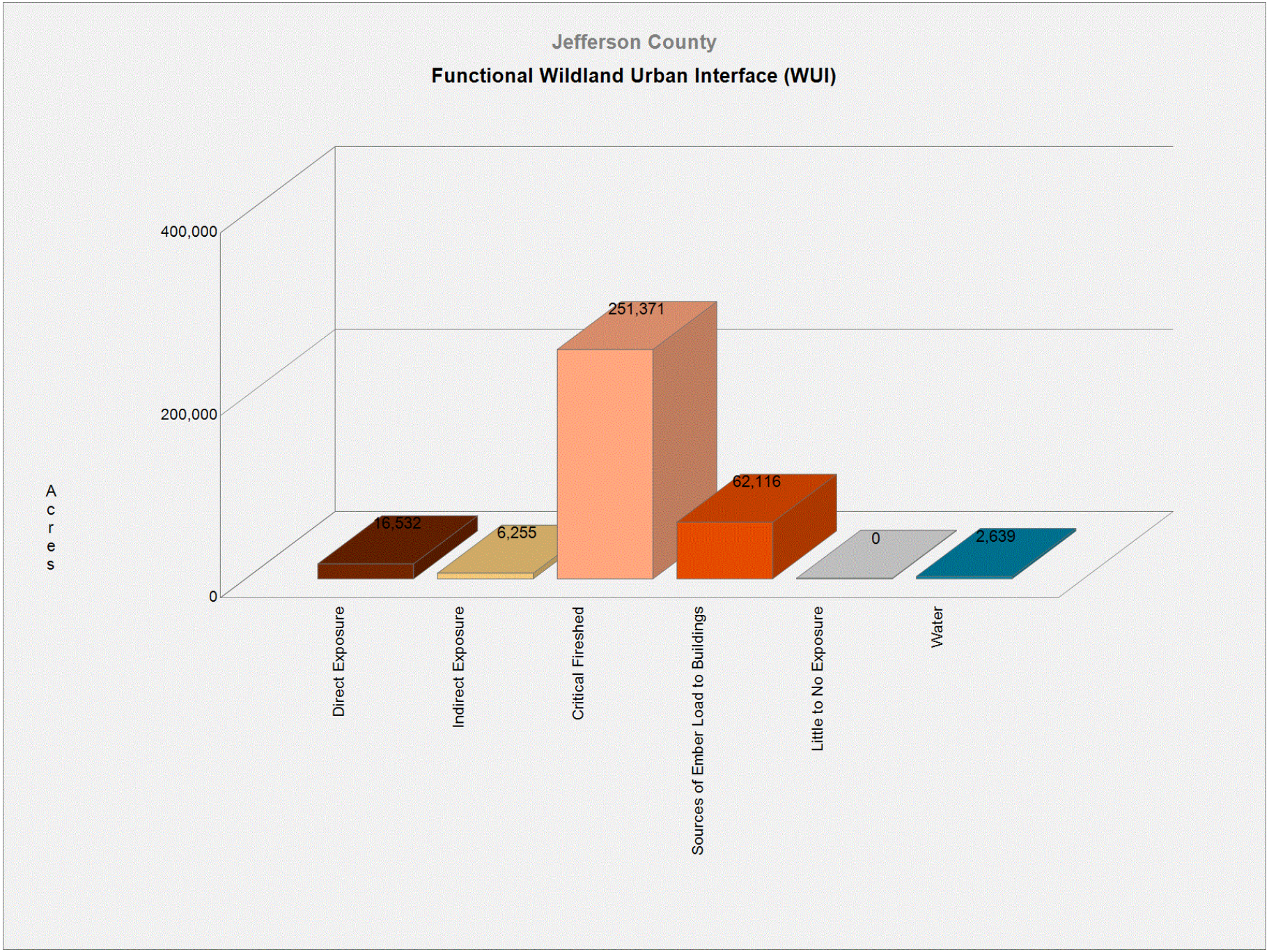
4: Critical Fireshed--the burnable land cover from which a wildfire can reach a significant number of buildings within a single burning period.

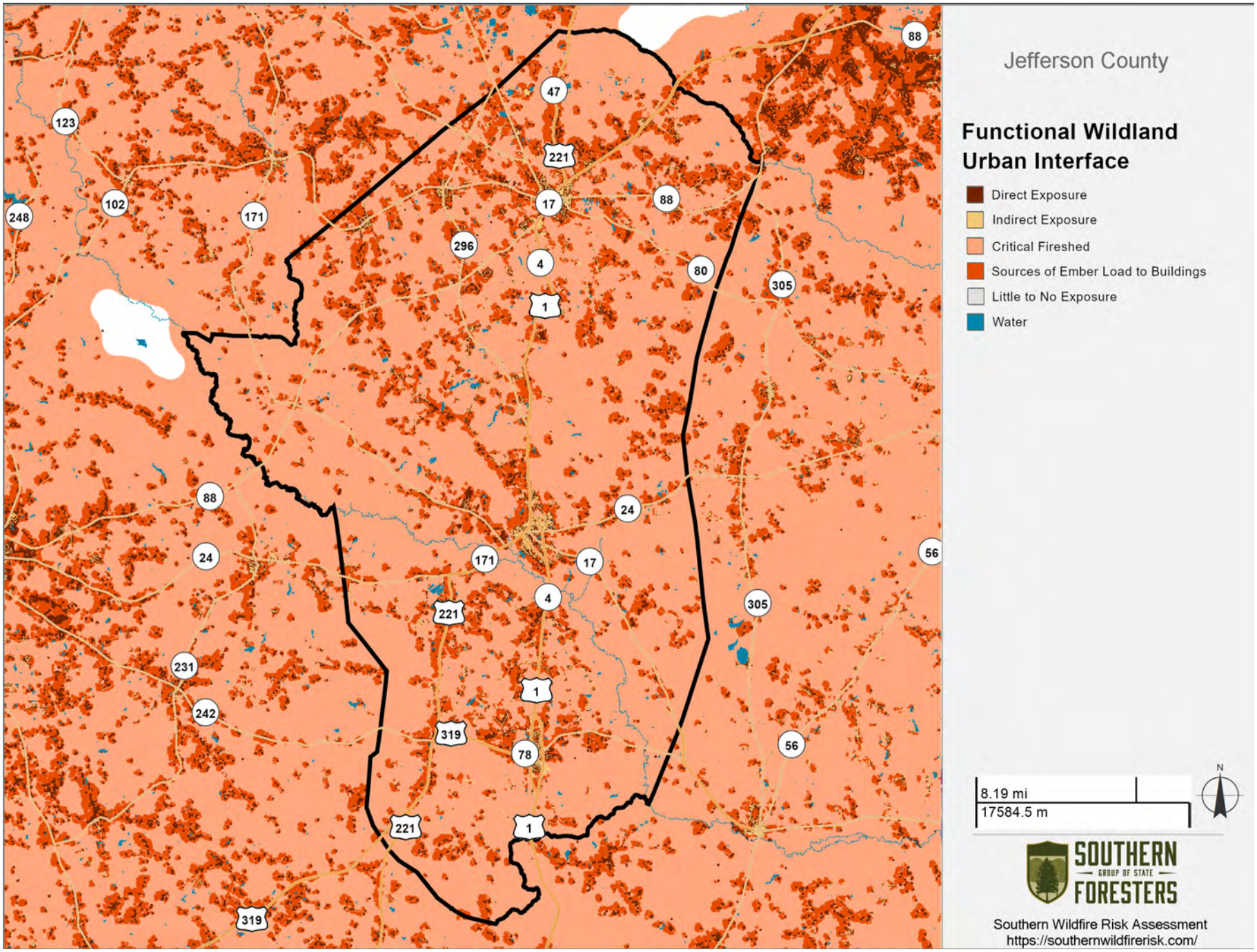
8: Sources of Ember Load to Buildings--Burnable land cover more than 75 m from a building that produces embers capable of reaching nearby buildings. Ember production is a function of fire type and intensity; ember travel is a function of wind speed and direction. Ember modeling is based on fire modeling based on gridded historical climatology.

*Buildings used in producing Functional WUI are defined as greater than 40 m2

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Functional Wildland Urban Interface (WUI) Category	Acres	Percent
	Direct Exposure	16,532	4.9 %
	Indirect Exposure	6,255	1.8 %
	Critical Fireshed	251,371	74.2 %
	Sources of Ember Load to Buildings	62,116	18.3 %
	Little to No Exposure	0	0.0 %
	Water	2,639	0.8 %
	Total	**338,913**	**100.0 %**


Jefferson County
Functional Wildland Urban Interface (WUI)
400,000
200,000
0
Acres
16,532
6,255
251,371
62,116
0
2,639
Direct Exposure
Indirect Exposure
Critical Fireshed
Sources of Ember Load to Buildings
Little to No Exposure
Water


Jefferson County
Functional Wildland Urban Interface
Direct Exposure
Indirect Exposure
Critical Fireshed
Sources of Ember Load to Buildings
Little to No Exposure
Water
8.19 mi
17584.5 m
N
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Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

Flame Front Characteristics

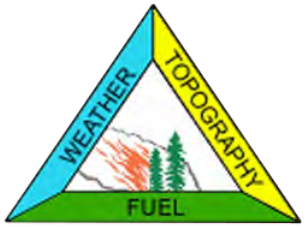
The information in this section of the report describes fire behavior characteristics at the flaming front of the fire.

Contents:

Fire Behavior Overview

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 wind speed.

Weather variables were acquired from gridded weather data to generate 216 weather scenarios comprised of 9 wind speeds, 8 wind directions, and 3 moisture scenarios. Rather than employing multiple percentile weather categories (as previously used in the SWRA fire behavior calculations), the fire behavior modeling in the SWRA update is calculated with the Wildfire Exposure Simulation Tool (WildEST).

WildEST is a cloud-based system that uses a custom implementation of the FlamMap fire modeling system (Finney 2006) to produce simulations under a range of weather types (wind speed, wind direction, fuel moisture content). The 216 FlamMap runs are combined into a single output by weighting each scenario according to weather type probabilities that reflect how often each weather scenario occurs in the record, its co-occurrence with historical fire ignitions, and the influence of high-spread conditions (such as the disproportionate impact of hot, dry, and windy conditions on fire growth).

Two sets of results are provided for each of the Flame Front Characteristic layers. Results using all 216 weather scenarios are labeled "Characteristic" while "95th Percentile" or average-worst Flame Front Characteristics demonstrate the impact of the top five percent of weather types. These results represent an average of the worst 5% of weather types, weighted according to the frequency of the weather type and the influence of high-spread conditions.

Topography

Topography datasets required to compute fire behavior characteristics are elevation, slope and aspect.

Characteristic Fire Intensity Scale

Characteristic Fire Intensity Scale (FIS) specifically identifies where significant fuel hazards and associated dangerous fire behavior potential exist based on fuel and weighted across a full range of wind and weather conditions calculated using WildEST. Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations. These estimates include the contribution of crown fuel and crowning fire intensity.

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.

1. 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.

2. 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.

3. Class 3, Moderate:
Flames up to 9 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.

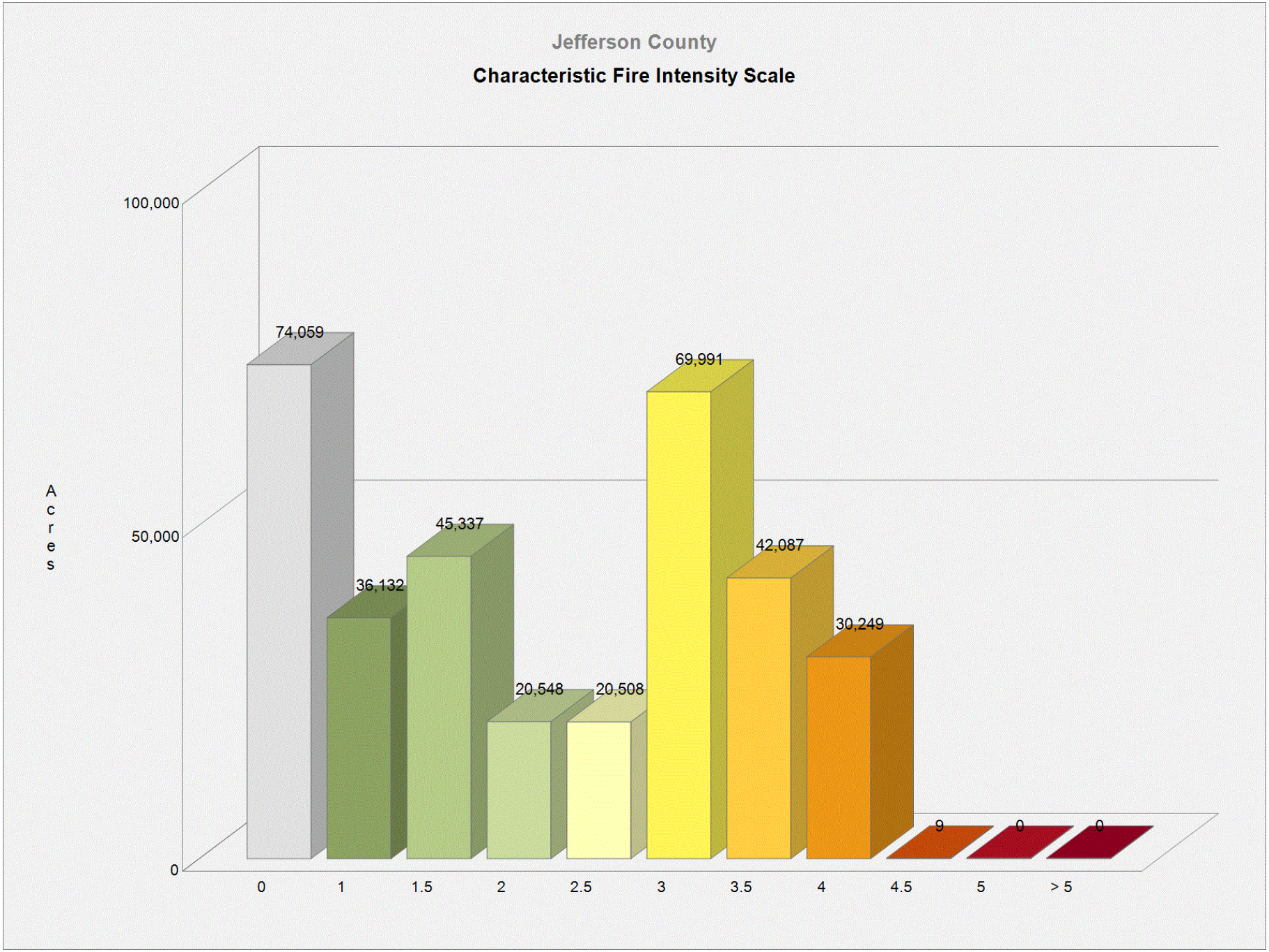
4. Class 4, High:
Large Flames, up to 40 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.

5. Class 5, Very High:
Flames exceeding 200 feet in length; expect extreme fire behavior.

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.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Characteristic Fire Intensity Scale Category	Acres	Percent
	0	74,059	21.9 %
	1	36,132	10.7 %
	1.5	45,337	13.4 %
	2	20,548	6.1 %
	2.5	20,508	6.1 %
	3	69,991	20.7 %
	3.5	42,087	12.4 %
	4	30,249	8.9 %
	4.5	9	0.0 %
	5	0	0.0 %
	> 5	0	0.0 %
	Total	**338,920**	**100.0 %**


Jefferson County
Characteristic Fire Intensity Scale
Acres
100,000
50,000
0
74,059
36,132
45,337
20,548
20,508
69,991
42,087
30,249
9
0
0
0
1
1.5
2
2.5
3
3.5
4
4.5
5
> 5

95th Percentile Fire Intensity Scale

This layer represents the "average-worst" 95th Percentile Fire Intensity Scale at the flaming front of the fire. Here, fireline intensity is represented as the standard Fire Intensity Scale (Log10 of fireline intensity) as determined by fuel and weather characteristics. These results are weighted according to the Weather Type Probabilities (WTPs) from the highest five percent of possible wind and weather conditions and include the contribution of crown fuel and crowning fire intensity, if applicable. Fireline intensity is calculated using WildEST. Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations.

Similar to the Richter scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. FIS consists 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.

1. 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.

2. 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.

3. Class 3, Moderate:
Flames up to 9 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.

4. Class 4, High:
Large Flames, up to 40 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.

5. Class 5, Very High:
Flames exceeding 200 feet in length; expect extreme fire behavior.

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.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	95th Percentile Fire Intensity Scale Category	Acres	Percent
	0	74,059	21.9 %
	1	33,454	9.9 %
	1.5	2,417	0.7 %
	2	54,849	16.2 %
	2.5	12,788	3.8 %
	3	22,895	6.8 %
	3.5	60,430	17.8 %
	4	16,472	4.9 %
	4.5	60,227	17.8 %
	5	1,329	0.4 %
	> 5	0	0.0 %
	Total	**338,920**	**100.0 %**

Characteristic Flame Length

This layer represents the flame length (in feet) as determined by fuel and weather characteristics. These results are weighted across a full range of possible wind and weather conditions and include the contribution of crown fire flame lengths, if applicable. Flame length is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations.

Uses for this flame length dataset include comparison of expected flame-lengths across the landscape for identifying wildfire hazards to the public and exploring hazard mitigation opportunities for communities and land management agencies.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Characteristic Flame Length Category	Acres	Percent
	0	74,059	21.9 %
	< 1	38,580	11.4 %
	1 - 2	65,987	19.5 %
	2 - 4	68,799	20.3 %
	4 - 10	40,772	12.0 %
	10 - 21	48,166	14.2 %
	21 - 46	2,558	0.8 %
	46 - 100	0	0.0 %
	> 100	0	0.0 %
	Total	**338,921**	**100.0 %**

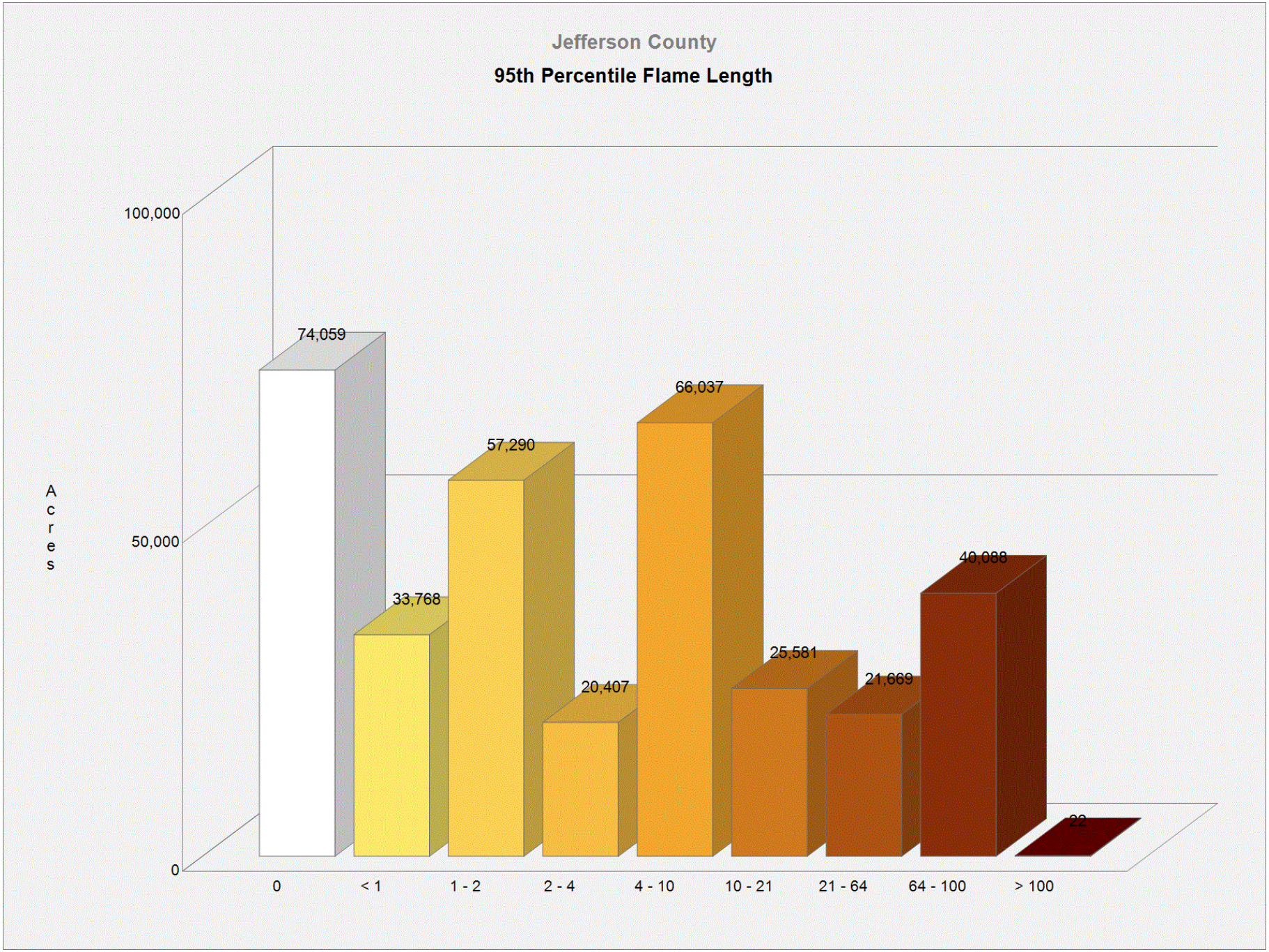
95th Percentile Flame Length

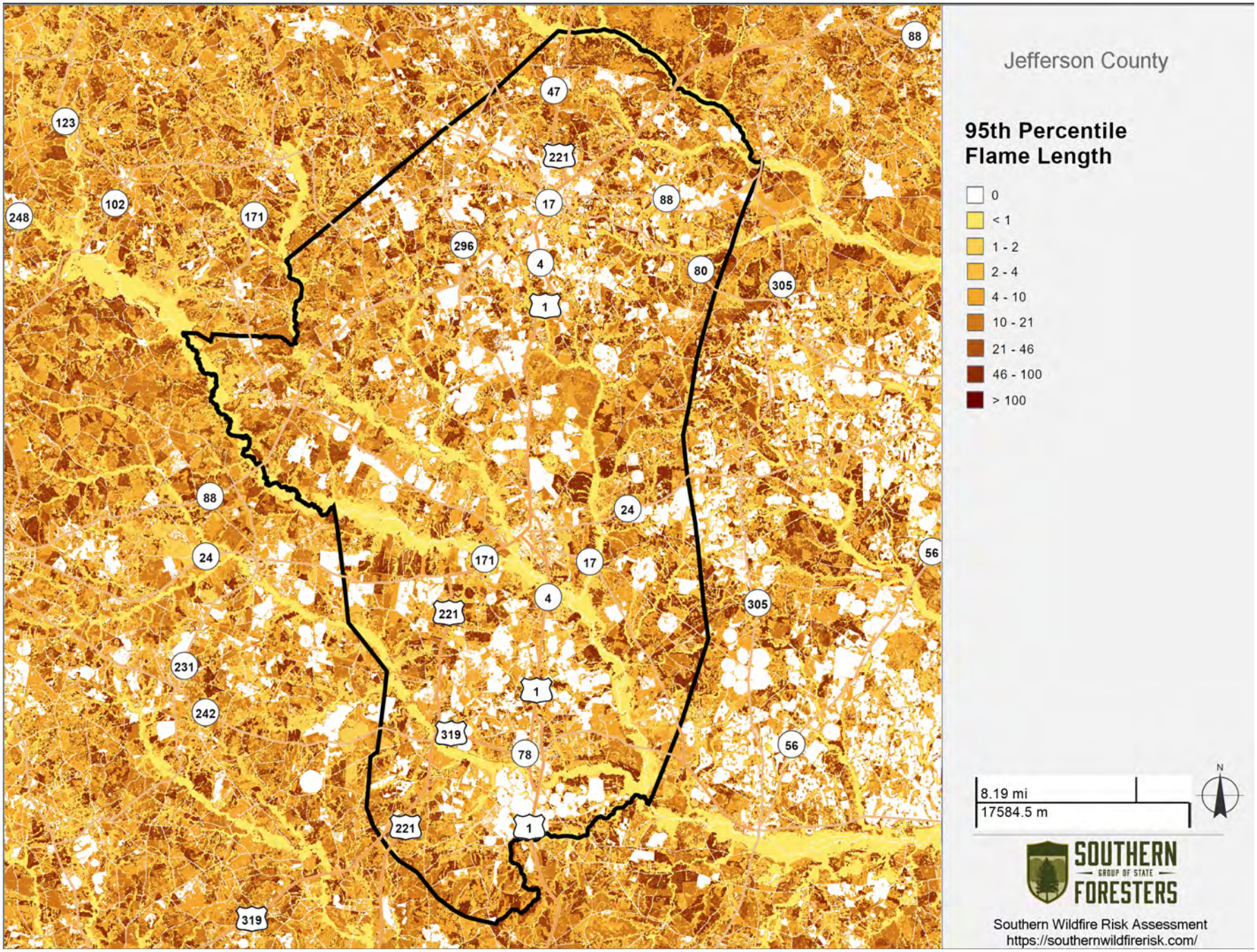
This layer represents the "average-worst" 95th Percentile Flame Length (in feet) at the flaming front of the fire as determined by fuel and weather characteristics. These results are weighted according to the Weather Type Probabilities (WTPs) from the highest five percent of possible wind and weather conditions and include the contribution of crown fire flame lengths, if applicable.

Flame length is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculation.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	95th Percentile Flame Length Category	Acres	Percent
	0	74,059	21.9 %
	< 1	33,768	10.0 %
	1 - 2	57,290	16.9 %
	2 - 4	20,407	6.0 %
	4 - 10	66,037	19.5 %
	10 - 21	25,581	7.5 %
	21 - 46	21,669	6.4 %
	46 - 100	40,088	11.8 %
	> 100	22	0.0 %
	Total	**338,921**	**100.0 %**


Jefferson County
95th Percentile Flame Length
Acres
100,000
50,000
0
74,059
33,768
57,290
20,407
66,037
25,581
21,669
40,088
22
0
< 1
1 - 2
2 - 4
4 - 10
10 - 21
21 - 64
64 - 100
> 100

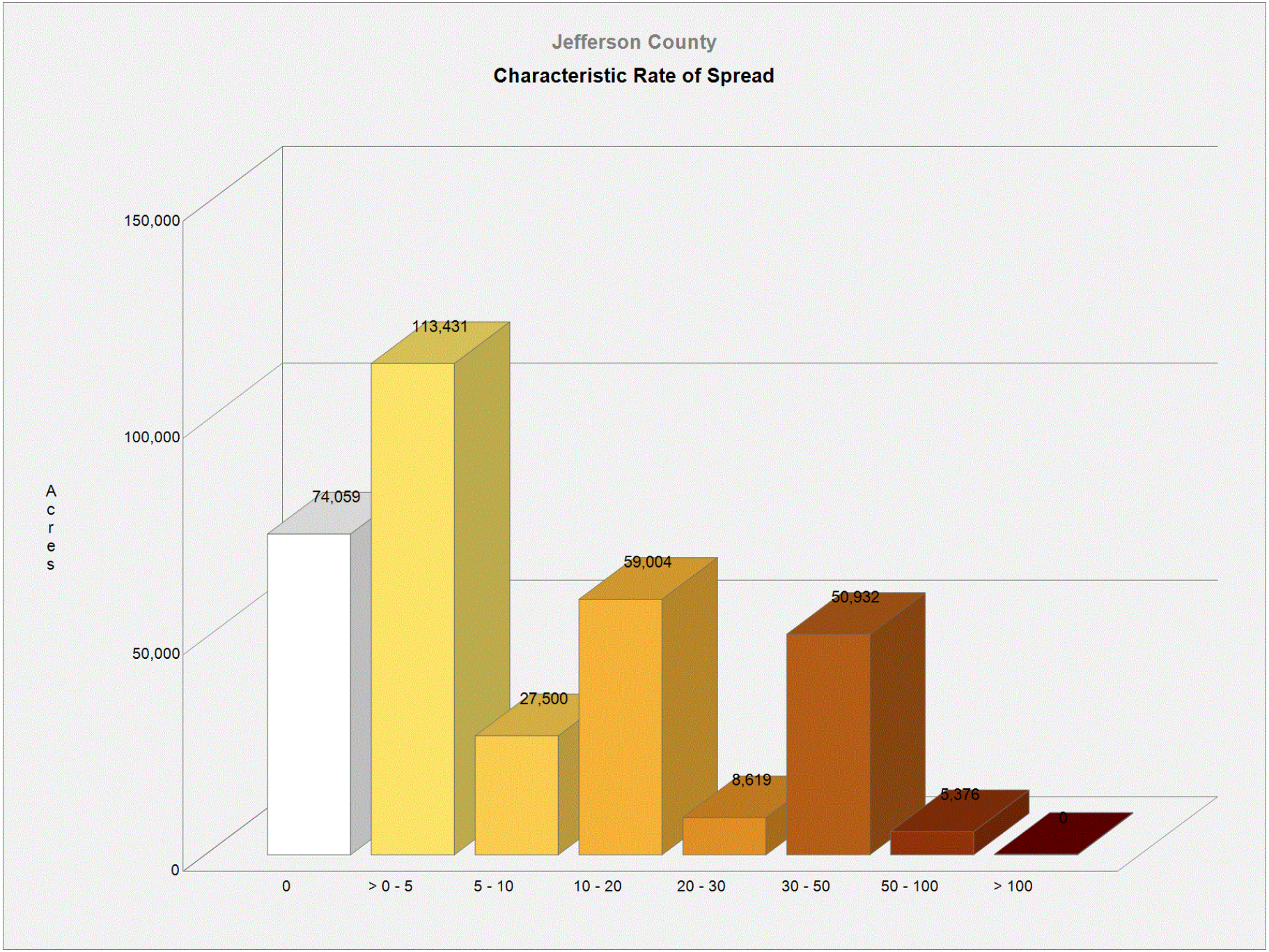

Jefferson County
95th Percentile
Flame Length
0
< 1
1 - 2
2 - 4
4 - 10
10 - 21
21 - 46
46 - 100
> 100
8.19 mi
17584.5 m
N
SOUTHERN
GROUP OF STATE
FORESTERS
Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

Characteristic Rate of Spread

This layer represents the rate of spread as determined by fuel and weather characteristics. These results are weighted across a full range of possible wind and weather conditions and include the contribution of crown fire spread rate, if applicable. Note: Burnable cornfields in the fall harvest season have been excluded from this dataset.Rate of Spread is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations. Note: Burnable cornfields in the fall harvest season have been excluded from this dataset.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Characteristic Rate of Spread Category	Acres	Percent
	0	74,059	21.9 %
	> 0 - 5	113,431	33.5 %
	5 - 10	27,500	8.1 %
	10 - 20	59,004	17.4 %
	20 - 30	8,619	2.5 %
	30 - 50	50,932	15.0 %
	50 - 100	5,376	1.6 %
	> 100	0	0.0 %
	Total	**338,921**	**100.0 %**


Jefferson County
Characteristic Rate of Spread
Acres
150,000
100,000
50,000
0
74,059
113,431
27,500
59,004
8,619
50,932
5,376
0
0
> 0 - 5
5 - 10
10 - 20
20 - 30
30 - 50
50 - 100
> 100

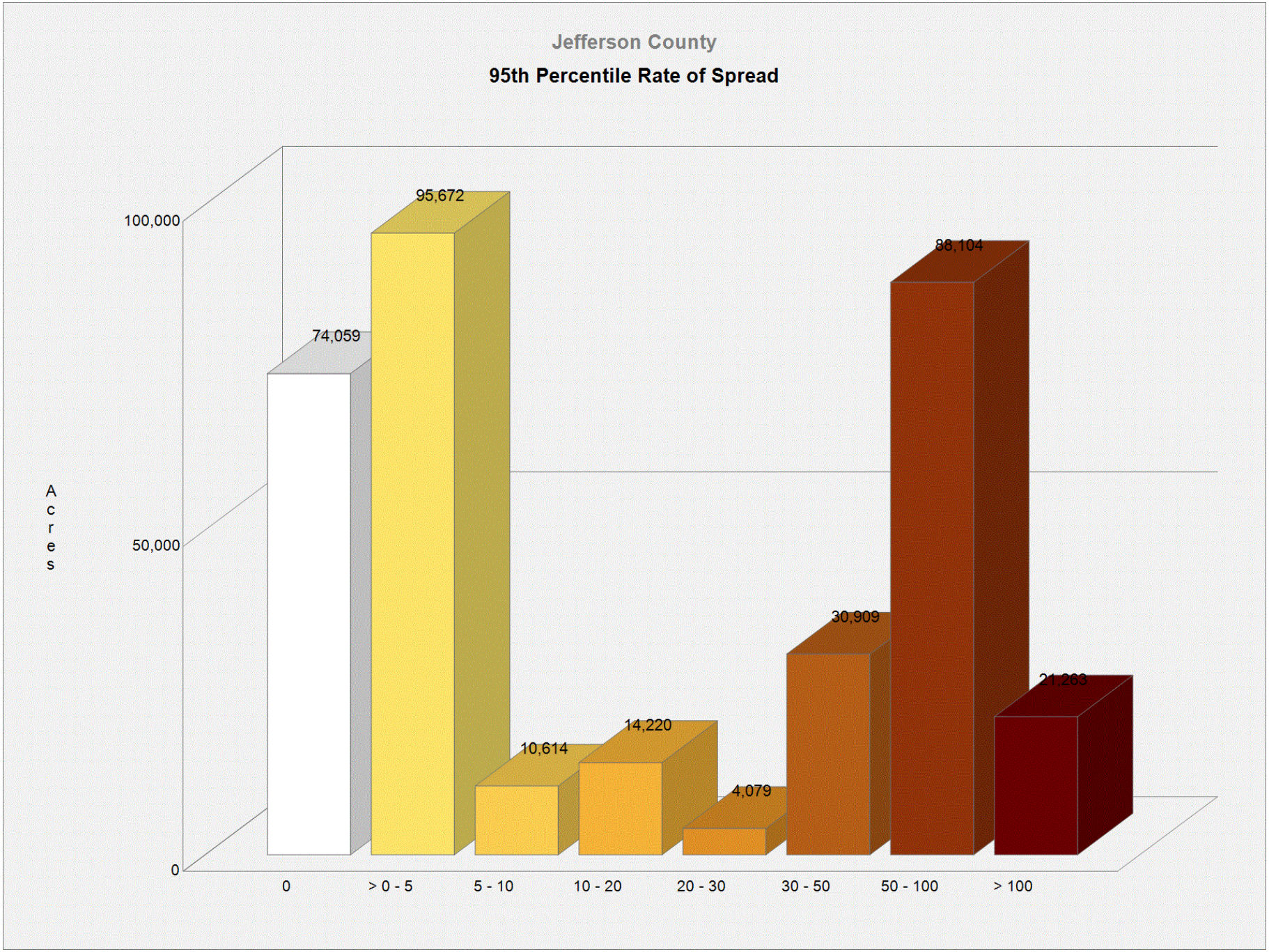
95th Percentile Rate of Spread

This layer represents the "average-worst" 95th Percentile Rate of Spread (ch/h) at the flaming front of the fire as determined by fuel and weather characteristics. These results are weighted according to the Weather Type Probabilities (WTPs) from the highest five percent of possible wind and weather conditions and include the contribution of crown fire spread rate, if applicable.

Rate of Spread is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	95th Percentile Rate of Spread Category	Acres	Percent
	0	74,059	21.9 %
	> 0 - 5	95,672	28.2 %
	5 - 10	10,614	3.1 %
	10 - 20	14,220	4.2 %
	20 - 30	4,079	1.2 %
	30 - 50	30,909	9.1 %
	50 - 100	88,104	26.0 %
	> 100	21,263	6.3 %
	Total	**338,920**	**100.0 %**


Jefferson County
95th Percentile Rate of Spread
Acres
100,000
50,000
0
74,059
95,672
10,614
14,220
4,079
30,909
88,104
21,263
0
> 0 - 5
5 - 10
10 - 20
20 - 30
30 - 50
50 - 100
> 100

Probability of Crown Fire

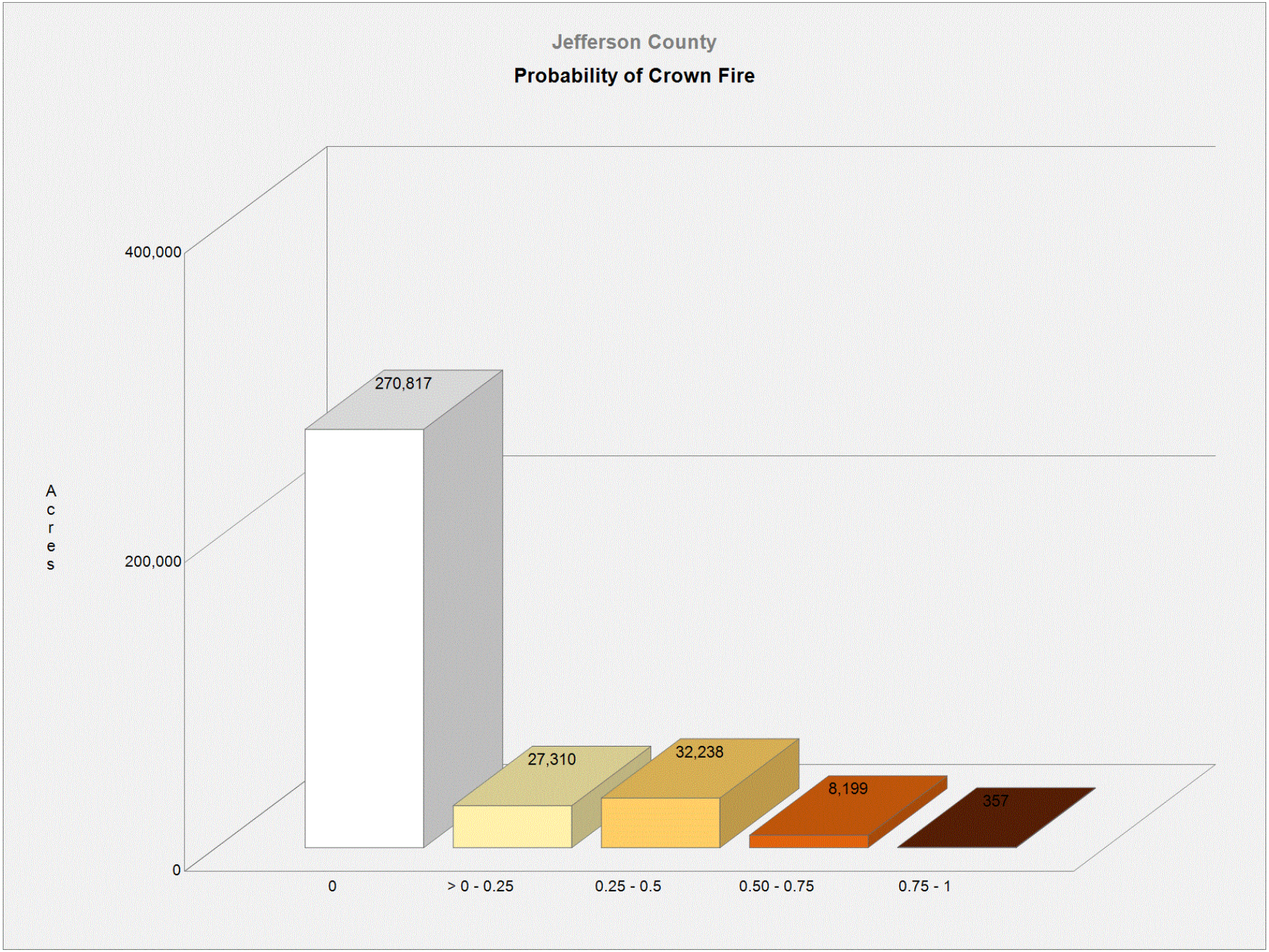
This layer shows the likelihood of the head of the fire experiencing crown fire (at least mid-grade passive crown fire). The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates.

Crown (or 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 measures can be taken if necessary.

Higher probability values indicate a high likelihood of crown fire. Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about the likelihood of a location experiencing crown fire, if a wildfire were to occur.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Probability of Crown Fire Category	Acres	Percent
	0	270,817	79.9 %
	> 0 - 0.25	27,310	8.1 %
	0.25 - 0.5	32,238	9.5 %
	0.50 - 0.75	8,199	2.4 %
	0.75 - 1	357	0.1 %
	Total	**338,921**	**100.0 %**


Jefferson County
Probability of Crown Fire
Acres
400,000
200,000
0
270,817
27,310
32,238
8,199
357
0
> 0 - 0.25
0.25 - 0.5
0.50 - 0.75
0.75 - 1

Challenges to Fire Operations

The information in this section of the report describes fire behavior information useful in operational fire planning and for identifying fuel treatment opportunities.

Contents:

Probability of Exceeding Manual Control

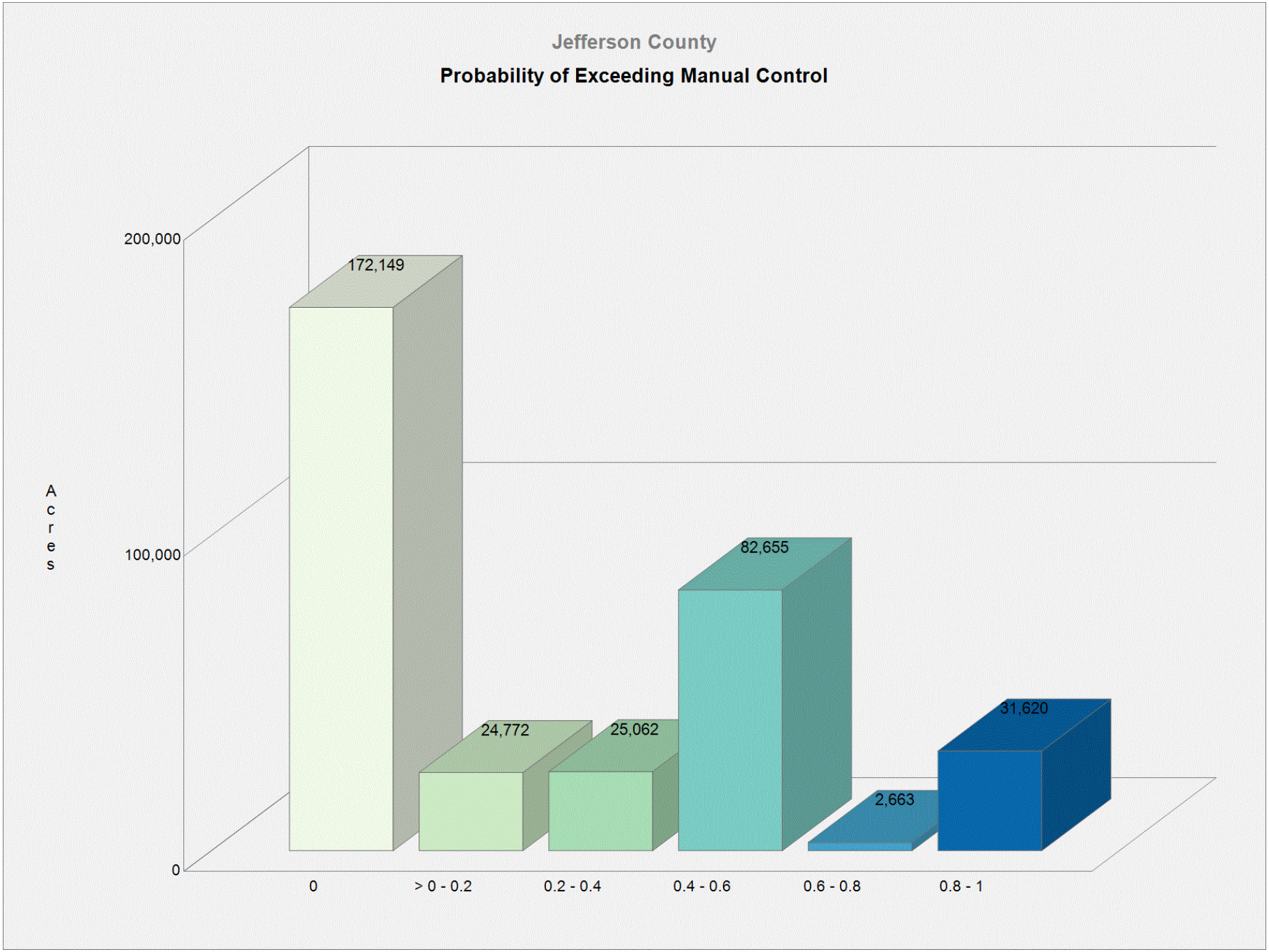
This layer shows the likelihood that flames at the head of the fire will exceed 4 feet, which is generally considered the limit for manual fire control. The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates.

Higher probability values indicate a lower chance of success using manual control measures (i.e. hand crews and hand line). Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about flame lengths if a wildfire were to occur.

Flame length exceedance probabilities refer to the likelihood of flames reaching or surpassing a certain height, typically measured from the leading edge or "head" of a fire. These probabilities provide insight into the range of potential flame lengths under various weather conditions. For example, if the probability of exceeding a certain flame length threshold is 0.2 (20%), it means there is a 20% chance that flames exceed that height under the range of modeled weather scenarios. It also means that 80% of flame lengths are expected to be below the threshold. These probabilities help fire management personnel anticipate and plan for the potential intensity of wildfires in a specific area.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Probability of Exceeding Manual Control Category	Acres	Percent
	0	172,149	50.8 %
	> 0 - 0.2	24,772	7.3 %
	0.2 - 0.4	25,062	7.4 %
	0.4 - 0.6	82,655	24.4 %
	0.6 - 0.8	2,663	0.8 %
	0.8 - 1	31,620	9.3 %
	Total	**338,921**	**100.0 %**


Jefferson County
Probability of Exceeding Manual Control
Acres
200,000
100,000
0
172,149
24,772
25,062
82,655
2,663
31,620
0
> 0 - 0.2
0.2 - 0.4
0.4 - 0.6
0.6 - 0.8
0.8 - 1

Probability of Exceeding Mechanical Control

This layer shows the likelihood that flames at the head of the fire will exceed 8 feet, which is considered the limit for mechanical fire control in fire operations. The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates.

Higher probability values indicate a lower chance of success using mechanical control measures such as dozers and engines. Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about flame lengths if a wildfire were to occur.

Flame length exceedance probabilities refer to the likelihood of flames reaching or surpassing a certain height, typically measured from the leading edge or "head" of a fire. These probabilities provide insight into the range of potential flame lengths under various weather conditions. For example, if the probability of exceeding a certain flame length threshold is 0.2 (20%), it means there is a 20% chance that flames exceed that height under the range of modeled weather scenarios. It also means that 80% of flame lengths are expected to be below the threshold. These probabilities help fire management personnel anticipate and plan for the potential intensity of wildfires in a specific area.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Probability of Exceeding Mechanical Control Category	Acres	Percent
	0	202,853	59.9 %
	> 0 - 0.2	61,119	18.0 %
	0.2 - 0.4	30,623	9.0 %
	0.4 - 0.6	27,590	8.1 %
	0.6 - 0.8	415	0.1 %
	0.8 - 1	16,321	4.8 %
	Total	**338,921**	**100.0 %**

Probability of Extreme Fire Behavior

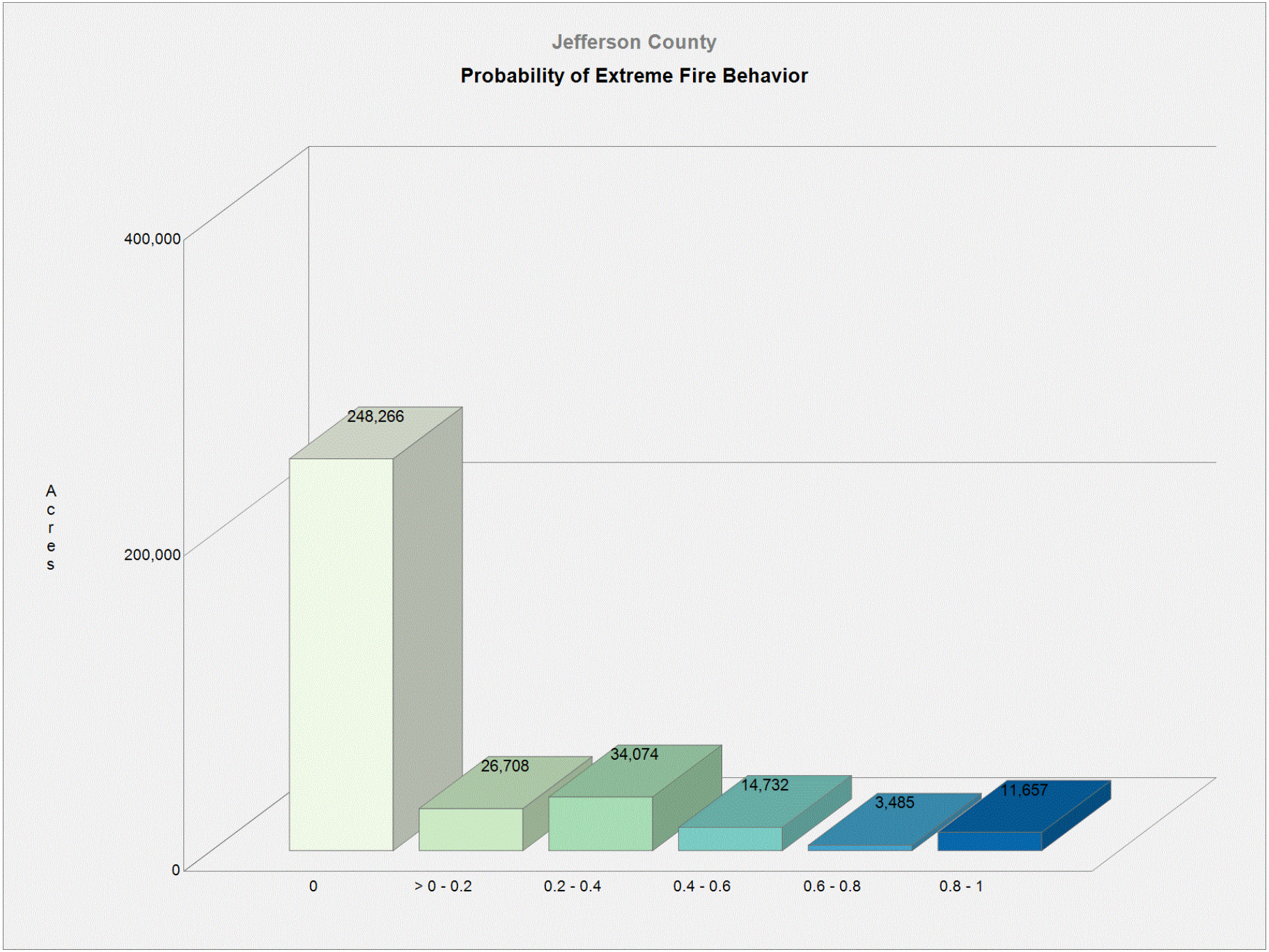
This layer shows the likelihood that flames at the head of the fire will exceed 11 feet, which is considered threshold for extreme fire behavior in fire operations. The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates. Flames of this height can indicate extreme fire behavior and present significant challenges for suppression efforts.

Higher probability values indicate a high likelihood of extreme fire behavior such as crowning and spotting. Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about flame lengths if a wildfire were to occur.

Flame length exceedance probabilities refer to the likelihood of flames reaching or surpassing a certain height, typically measured from the leading edge or "head" of a fire. These probabilities provide insight into the range of potential flame lengths under various weather conditions. For example, if the probability of exceeding a certain flame length threshold is 0.2 (20%), it means there is a 20% chance that flames exceed that height under the range of modeled weather scenarios. It also means that 80% of flame lengths are expected to be below the threshold. These probabilities help fire management personnel anticipate and plan for the potential intensity of wildfires in a specific area.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Probability of Extreme Fire Behavior Category	Acres	Percent
	0	248,266	73.3 %
	> 0 - 0.2	26,708	7.9 %
	0.2 - 0.4	34,074	10.1 %
	0.4 - 0.6	14,732	4.3 %
	0.6 - 0.8	3,485	1.0 %
	0.8 - 1	11,657	3.4 %
	Total	**338,922**	**100.0 %**

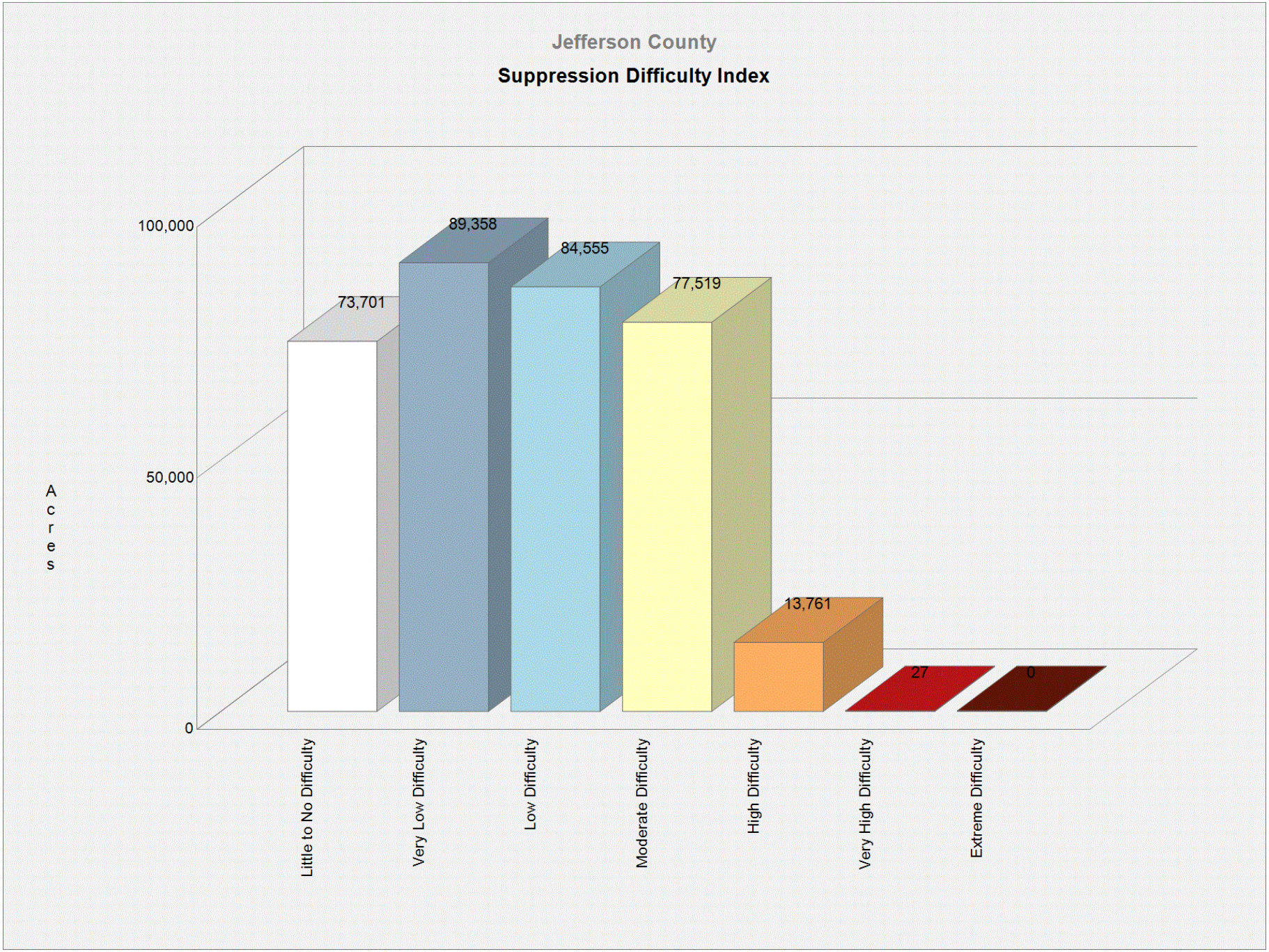

Jefferson County
Probability of Extreme Fire Behavior
Acres
400,000
200,000
0
248,266
26,708
34,074
14,732
3,485
11,657
0
> 0 - 0.2
0.2 - 0.4
0.4 - 0.6
0.6 - 0.8
0.8 - 1

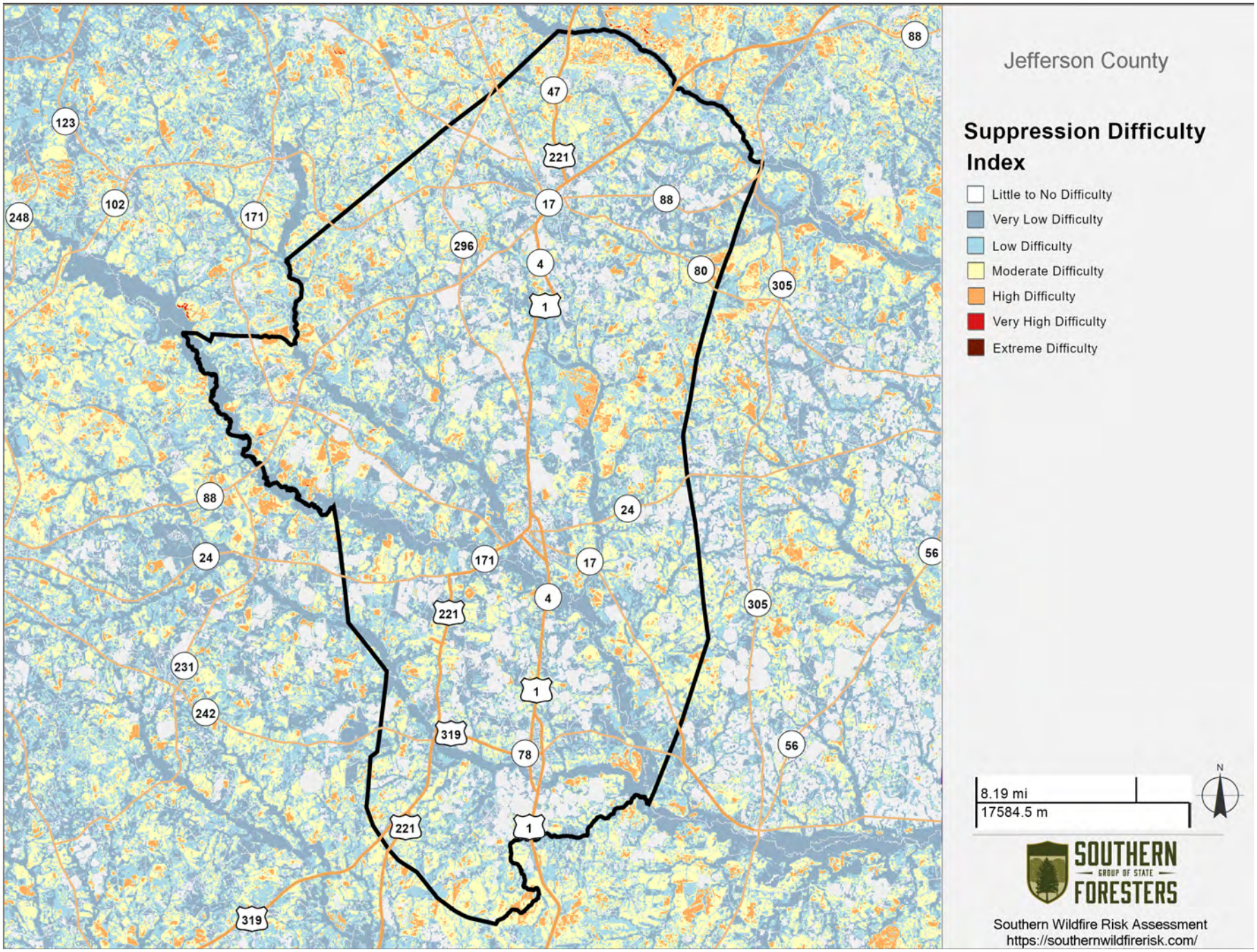
Suppression Difficulty Index

Suppression Difficulty Index can inform fire management decisions related to suppression strategies and resource placement. It classifies fire suppression challenges into six levels, ranging from very low to extreme. Blue areas indicate relatively manageable conditions with some combination of gentle terrain, less resistant fuels, easier access, and milder fire behavior. Red areas highlight tougher conditions with steep terrain, limited access, and more-intense fire activity. This index does not consider aerial suppression strategies, overhead hazards to firefighters like standing dead trees, and does not include the likelihood of a wildfire occurring.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Suppression Difficulty Index Category	Acres	Percent
	Little to No Difficulty	73,701	21.7 %
	Very Low Difficulty	89,358	26.4 %
	Low Difficulty	84,555	24.9 %
	Moderate Difficulty	77,519	22.9 %
	High Difficulty	13,761	4.1 %
	Very High Difficulty	27	0.0 %
	Extreme Difficulty	0	0.0 %
	Total	**338,921**	**100.0 %**


Jefferson County
Suppression Difficulty Index
Acres
100,000
50,000
0
73,701
89,358
84,555
77,519
13,761
27
0
Little to No Difficulty
Very Low Difficulty
Low Difficulty
Moderate Difficulty
High Difficulty
Very High Difficulty
Extreme Difficulty

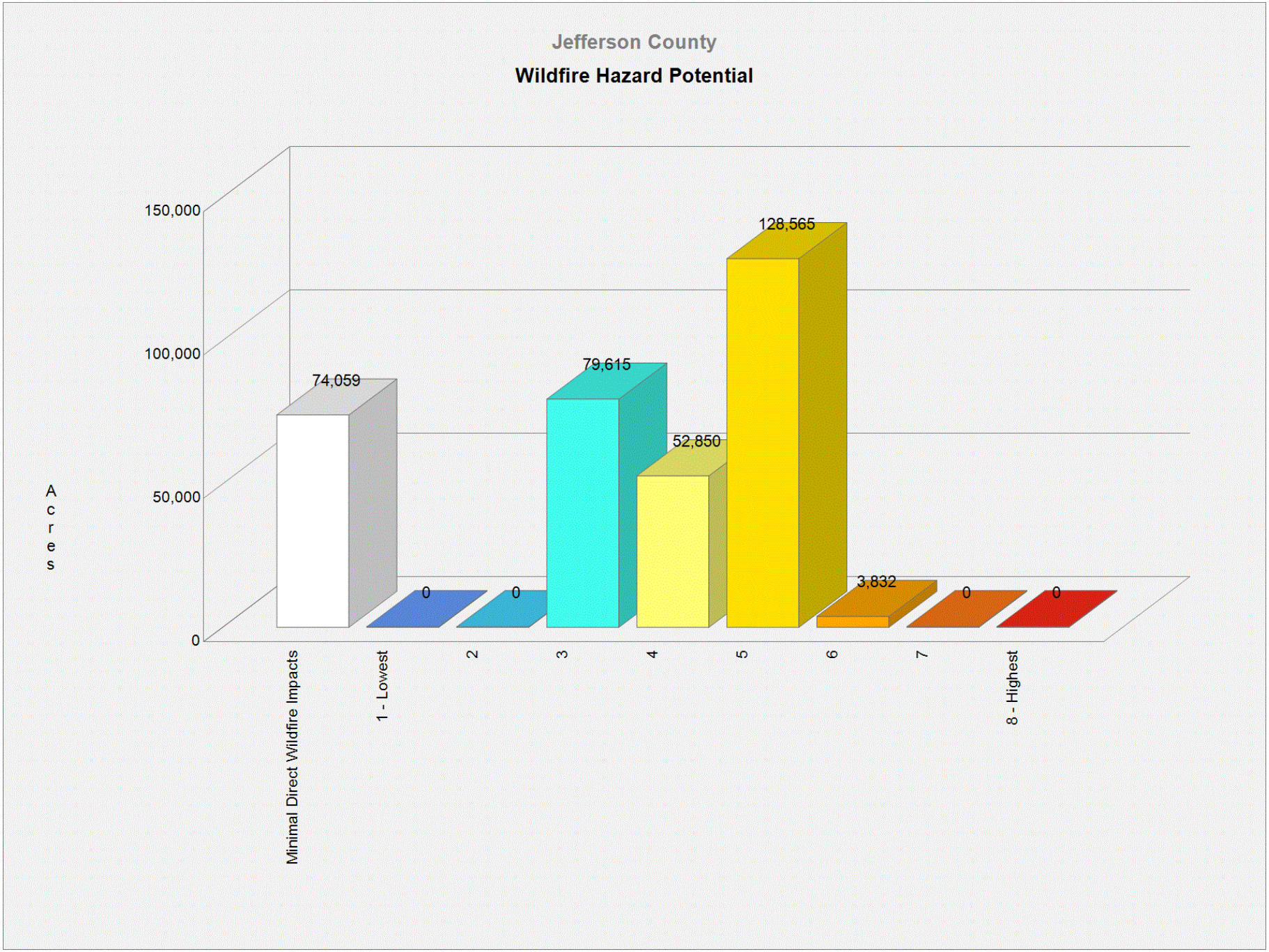

Jefferson County
Suppression Difficulty Index
Little to No Difficulty
Very Low Difficulty
Low Difficulty
Moderate Difficulty
High Difficulty
Very High Difficulty
Extreme Difficulty
8.19 mi
17584.5 m
N
SOUTHERN GROUP OF STATE FORESTERS
Southern Wildfire Risk Assessment
https://southernwildfirerisk.com/

Wildfire Hazard Potential

Wildfire Hazard Potential is mapped with eight classes, ranging from low (blue) to high (red) hazard levels. The highest classes indicate areas with fuels more prone to experiencing extreme fire behavior during severe fire-weather conditions. Although Wildfire Hazard Potential is useful for long-term planning purposes, it does not incorporate current or forecasted weather conditions and should not be relied upon as a seasonal outlook.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Wildfire Hazard Potential Category	Acres	Percent
	Minimal Direct Wildfire Impacts	74,059	21.9 %
	1 - Lowest	0	0.0 %
	2	0	0.0 %
	3	79,615	23.5 %
	4	52,850	15.6 %
	5	128,565	37.9 %
	6	3,832	1.1 %
	7	0	0.0 %
	8 - Highest	0	0.0 %
	Total	**338,921**	**100.0 %**


Jefferson County
Wildfire Hazard Potential
Acres
150,000
100,000
50,000
0
74,059
0
0
79,615
52,850
128,565
3,832
0
0
Minimal Direct Wildfire Impacts
1 - Lowest
2
3
4
5
6
7
8 - Highest

Ember Characteristics

The information in this section of the report identifies the locations most likely to produce embers and the areas most likely to receive embers, given a wildfire occurs. Ember modeling is based on fuel characteristics, climate, and topography.

Contents:

Conditional Ember Production Index

Conditional Ember Production Index (cEPI) provides a relative index of embers produced at a location, given that a fire occurs.

Ember production is based on surface and canopy fuel characteristics, climate, and topography within the pixel. Units are an index of the relative number of embers rather than a count of embers produced. Conditional EPI is based on heading-only fire behavior and does not include the likelihood of wildfire.

Embers can be produced from any burnable fuel source in the fuelscape, dependent on the wind and weather characteristics that lead to lofting embers.

Conditional EPI is useful for prioritizing fuel treatments to reduce the potential for ember production in volatile fuel types.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Conditional Ember Production Index Category	Acres	Percent
	Minimal Direct Wildfire Impacts	74,059	21.9 %
	1 - Lowest	1	0.0 %
	2	137,154	40.5 %
	3	4,949	1.5 %
	4	48,132	14.2 %
	5	10,197	3.0 %
	6	20,075	5.9 %
	7	42,116	12.4 %
	8	2,235	0.7 %
	9 - Highest	1	0.0 %
	Total	**338,919**	**100.0 %**

Conditional Ember Load Index

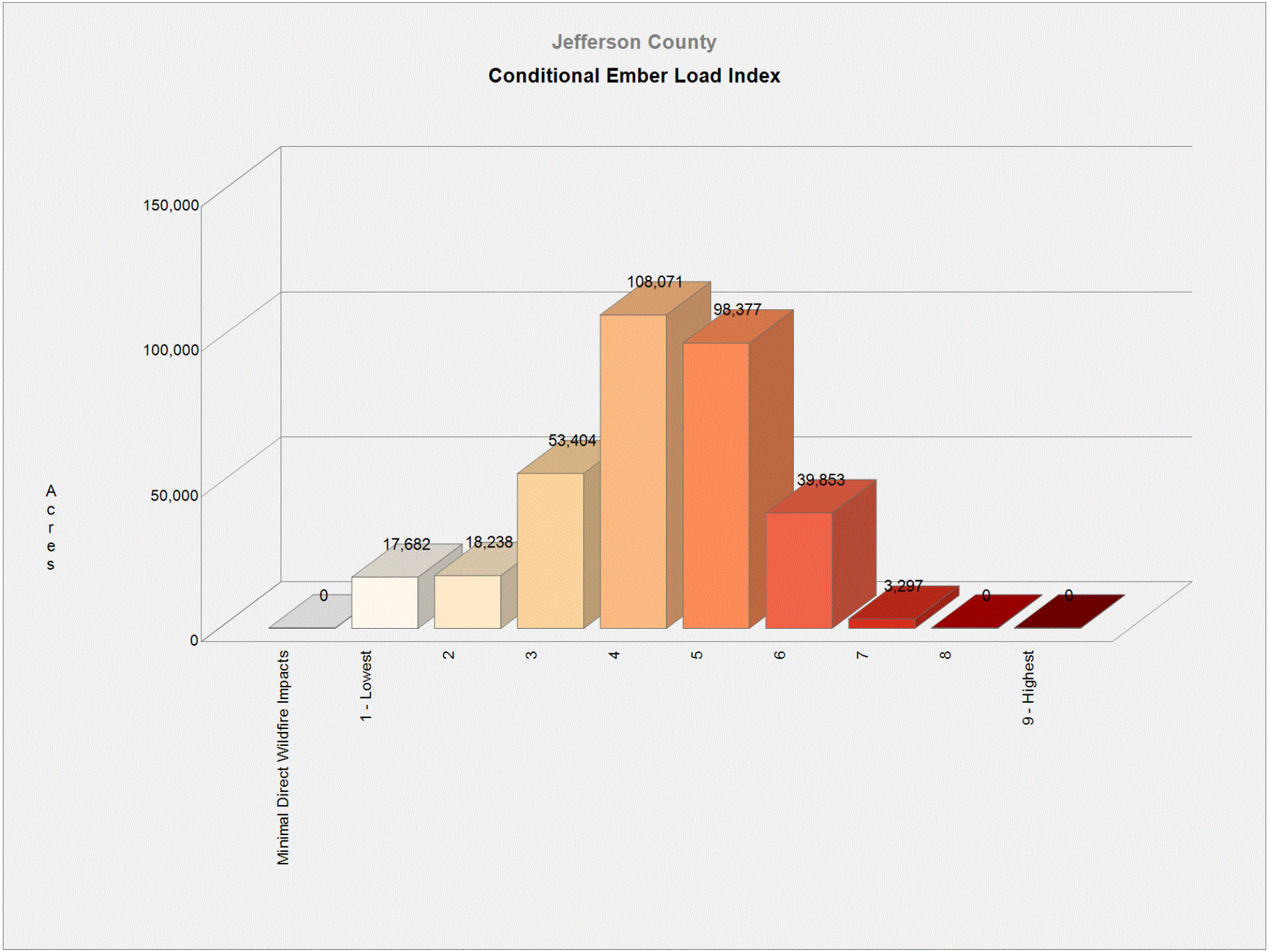
Conditional Ember Load Index (cELI) provides a relative index of embers received at a location, given that a fire occurs.

Ember load is based on surface and canopy fuel characteristics, climate, and topography within the pixel. Ember load incorporates downwind ember travel. Units are an index of the relative number of embers rather than a count of embers produced. Conditional ELI is based on heading-only fire behavior and does not include the likelihood of wildfire. Embers can be received by any pixel in the fuelscape; including both burnable and nonburnable fuel types.

Conditional ELI can be used to prioritize building hardening activities to resist ember ignition.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Conditional Ember Load Index Category	Acres	Percent
	Minimal Direct Wildfire Impacts	0	0.0 %
	1 - Lowest	17,682	5.2 %
	2	18,238	5.4 %
	3	53,404	15.8 %
	4	108,071	31.9 %
	5	98,377	29.0 %
	6	39,853	11.8 %
	7	3,297	1.0 %
	8	0	0.0 %
	9 - Highest	0	0.0 %
	Total	**338,922**	**100.0 %**


Jefferson County
Conditional Ember Load Index
Acres
150,000
100,000
50,000
0
0
17,682
18,238
53,404
108,071
98,377
39,853
3,297
0
0
Minimal Direct Wildfire Impacts
1 - Lowest
2
3
4
5
6
7
8
9 - Highest

Landscape Characteristics

The information in this section of the report describes the type of fuel characterized by the surface fuel model map and the percent slope, which is useful for characterizing conditions important for operating equipment.

Contents:

Surface Fuels

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. Surface fuels include grass, timber litter, shrub/brush, slash and other dead or live vegetation within about 6 feet of the ground and are shown here at 30-meter resolution.

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 reflect fuel disturbances through 2022 and are based initially on LANDFIRE 2020, calibrated with input from fuel calibration workshops.

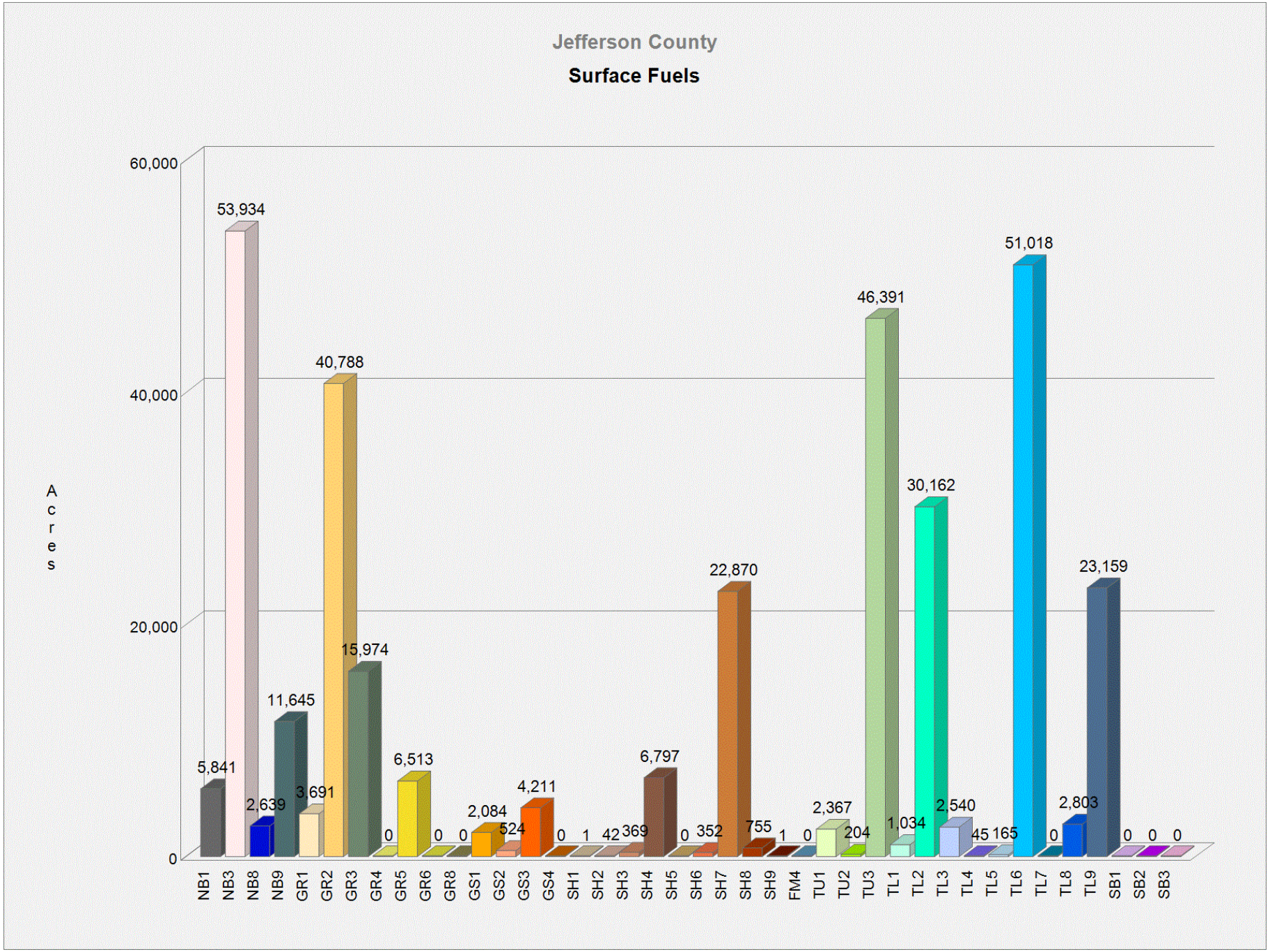
A detailed fuels calibration process was undertaken that involved collaboration with Southern state fuels and fire behavior specialists supported by federal partner involvement. Workshops were held to review the LANDFIRE fuels product and calibrate the data by modifying specific vegetation and fuels classes to better reflect local knowledge and input

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
Non-burnable Fuel Type Models (insufficient wildland fuel to carry a wildland fire under any condition)				
NB1	2005	Urban or suburban development; insufficient wildland fuel to carry wildland fire. Includes roads.	5,841	1.7 %
NB3	2005	Agricultural field, maintained in nonburnable condition.	53,934	15.9 %
NB8	2005	Open water	2,639	0.8 %
NB9	2005	Bare ground	11,645	3.4 %
Grass Fuels Type Models (nearly pure grass and/or forb type)				
GR1	2005	Grass is short, patchy, and possibly heavily grazed. Spread rate moderate; flame length low.	3,691	1.1 %
GR2	2005	Moderately coarse continuous grass, average depth about 1 foot. Spread rate high; flame length moderate.	40,788	12.0 %
GR3	2005	Very coarse grass, average depth about 2 feet. Spread rate high; flame length moderate.	15,974	4.7 %
GR4	2005	Moderately coarse continuous grass, average depth about 2 feet. Spread rate very high; flame length high.	0	0.0 %
GR5	2005	Dense, coarse grass, average depth about 1 to 2 feet. Spread rate very high; flame length high.	6,513	1.9 %
GR6	2005	Dryland grass about 1 to 2 feet tall. Spread rate very high; flame length very high.	0	0.0 %
GR8	2005	Heavy, coarse, continuous grass 3 to 5 feet tall. Spread rate very high; flame length very high.	0	0.0 %
Grass-Shrub Fuels Type Models (mixture of grass and shrub, up to 50 percent shrub coverage)				
GS1	2005	Shrubs are about 1 foot high, low grass load. Spread rate moderate; flame length low.	2,084	0.6 %
GS2	2005	Shrubs are 1 to 3 feet high, moderate grass load. Spread rate high; flame length moderate.	524	0.2 %
GS3	2005	Moderate grass/shrub load, average grass/shrub depth less than 2 feet. Spread rate high; flame length moderate.	4,211	1.2 %
GS4	2005	Heavy grass/shrub load, depth greater than 2 feet. Spread rate high; flame length very high.	0	0.0 %

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
Shrub Fuel Type Models (Shrubs cover at least 50 percent of the site, grass sparse to nonexistent)				
SH1	2005	Low shrub fuel load, fuelbed depth about 1 foot; some grass may be present. Spread rate very low; flame length very low.	1	0.0 %
SH2	2005	Moderate fuel load (higher than SH01), depth about 1 foot, no grass fuel present. Spread rate low; flame length low.	42	0.0 %
SH3	2005	Moderate shrub load, possibly with pine overstory or herbaceous fuel, fuel bed depth 2 to 3 feet. Spread rate low; flame length low.	369	0.1 %
SH4	2005	Low to moderate shrub and litter load, possibly with pine overstory, fuel bed depth about 3 feet. Spread rate high; flame length moderate.	6,797	2.0 %
SH5	2005	Heavy shrub load, depth 4 to 6 feet. Spread rate very high; flame length very high.	0	0.0 %
SH6	2005	Dense shrubs, little or no herb fuel, depth about 2 feet. Spread rate high; flame length high.	352	0.1 %
SH7	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.	22,870	6.7 %
SH8	2005	Dense shrubs, little or no herb fuel, depth about 3 feet. Spread rates high; flame length high.	755	0.2 %
SH9	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.	1	0.0 %
1982 Fire Behavior Prediction System – ONLY USED FOR FLORIDA ASSESSMENT				
FM4	1982	Chaparral	0	0.0 %
Timber-Understory Fuel Type Models (Grass or shrubs mixed with litter from forest canopy)				
TU1	2005	Fuelbed is low load of grass and/or shrub with litter. Spread rate low; flame length low.	2,367	0.7 %
TU2	2005	Fuelbed is moderate litter load with shrub component. Spread rate moderate; flame length low.	204	0.1 %
TU3	2005	Fuelbed is moderate litter load with grass and shrub components. Spread rate high; flame length moderate.	46,391	13.7 %
Timber Litter Fuel Type Models (dead and down woody fuel litter beneath a forest canopy)				
TL1	2005	Light to moderate load, fuels 1 to 2 inches deep. Spread rate very low; flame length very low.	1,034	0.3 %
TL2	2005	Low load, compact. Spread rate very low; flame length very low.	30,162	8.9 %

	Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
	TL3	2005	Moderate load conifer litter. Spread rate very low; flame length low.	2,540	0.7 %
	TL4	2005	Moderate load, includes small diameter downed logs. Spread rate low; flame length low.	45	0.0 %
	TL5	2005	High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.	165	0.0 %
	TL6	2005	Moderate load, less compact. Spread rate moderate; flame length low.	51,018	15.1 %
	TL7	2005	Heavy load forest litter, includes larger diameter downed logs. Spread rate low; flame length low.	0	0.0 %
	TL8	2005	Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.	2,803	0.8 %
	TL9	2005	Very high load broadleaf litter; heavy needle-drape in otherwise sparse shrub layer. Spread rate moderate; flame length moderate.	23,159	6.8 %
Slash-Blowdown Fuel Type Models (activity fuel/slash or debris from wind damage)					
	SB1	2005	Low load activity fuel. Spread rate moderate; flame length low.	0	0.0 %
	SB2	2005	Moderate load activity or low load blowdown. Spread rate moderate; flame length moderate.	0	0.0 %
	SB3	2005	High load activity fuel or moderate load blowdown. Spread rate high; flame length high.	0	0.0 %
			Total	**338,919**	**100.0 %**


Jefferson County
Surface Fuels
Acres
60,000
40,000
20,000
0
NB1 5,841
NB3 53,934
NB8 2,639
NB9 11,645
GR1 3,691
GR2 40,788
GR3 15,974
GR4 0
GR5 6,513
GR6 0
GR8 0
GS1 2,084
GS2 524
GS3 4,211
GS4 0
SH1 1
SH2 42
SH3 369
SH4 6,797
SH5 0
SH6 352
SH7 22,870
SH8 755
SH9 1
FM4 0
TU1 2,367
TU2 204
TU3 46,391
TL1 1,034
TL2 30,162
TL3 2,540
TL4 45
TL5 165
TL6 51,018
TL7 0
TL8 2,803
TL9 23,159
SB1 0
SB2 0
SB3 0

Percent Slope

Percent Slope measures the rate of change of elevation over a given horizontal distance (rise over run), expressed as a percent. Percent slope is used to characterize the local conditions for operating equipment. Slope identifies the inclination at a single location based on the adjacent elevation values. Steep local conditions can severely restrict the movement of equipment and resources for suppression and intensify fire behavior.

Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Percent Slope Category	Acres	Percent
	0 - 5	292,778	86.4 %
	5 - 15	44,695	13.2 %
	15 - 25	1,403	0.4 %
	25 - 40	44	0.0 %
	40 - 55	0	0.0 %
	55 - 75	0	0.0 %
	> 75	0	0.0 %
	Total	**338,920**	**100.0 %**

References

Anderson, H. E. (1982). Aids to determining fuel models for estimating fire behavior. USDA For. Serv. Gen. Tech. Rep. INT-122.

Finney, M. A. 2006. In: Fuels management—how to measure success: conference proceedings. 2006 March 28-30; Portland, Oregon. Proceedings RMRS-P-41. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station: 213-220. (647 KB; 13 pages). https://www.fs.usda.gov/research/treesearch/39312

Fire Program Analysis (FPA) System and US Forest Service Missoula Fire Sciences Laboratory, 20140307, Burn Probabilities for the Conterminous US (270-m GRID) from Calibrated FSim Runs for the 2014 FPA Submissions [bp_20140307]:, Fire Program Analysis (FPA) System, National Interagency Fire Center, Boise, ID.

Scott, J. H., & Burgan, R. E. (2005). Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model. Ft. Collins, CO, Rocky Mountain Research Station: USDA Forest Service, Gen. Tech. Rpt. RMRS-GTR-153.

Scott, J. H., & Reinhardt, E. D. (2001). Assessing the Crown Fire Potential by Linking Models of Surface and Crown Fire Behavior. Ft. Collins, CO, Rocky Mountain Research Station: USDA Forest Service, Research Paper RMRS-RP-29.

Scott, Joe. November 2006. Off the Richter: Magnitude and Intensity Scales for Wildland Fire. A non-published white paper prepared for the AFE Fire Congress, November 2006, San Diego, CA.

More information about the Fire Program Analysis project is available from https://www.forestsandrangelands.gov/WFIT/applications/FPA/index.shtml

SOUTHERN GROUP OF STATE FORESTERS
WILDFIRE RISK ASSESSMENT PORTAL

APPENDIX D

WORKSHEETS USED IN PLANNING PROCESS

GEMA Worksheet #1 Identify the Hazard Step 1

Date: What kinds of natural hazards can affect you?

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 Website 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.*

Use this space to record information you find for each of the hazards you will be **researching**. *Attach additional pages as necessary. Note:* ***Bolded*** *hazards are addressed in this How-to Guide.*

	Task A	Task B
Avalanche		
Coastal Erosion		
Coastal Storm	X	
Dam Failure	X	X
Drought	X	X
Earthquake	X	
Expansive Soils		
Extreme Heat	X	
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?**	**Scale of Map**
Dam Failure See Appendix A for this complete information	USGS, The Jefferson Reporter, NCDC	Only map of dams is available See Appendix A	
Drought See Appendix A for complete information	USDA, NCDC, SHELDUS, The Jefferson Reporter, Palmer Index	Maps area available for the state as a whole from the Palmer Index See Appendix A	
Flood See Appendix A for this complete information	USGS, NCDC, SHELDUS, The Jefferson Reporter,	Flood Plain Maps are available See Appendix A	
Severe Winter Weather See Appendix A for this complete information	SERRC, NCDC, SHELDUS, The Jefferson Reporter,	Maps are available in Appendix A	
Hail See Appendix A for this complete information	NCDC, SHELDUS,	No map is available	
Tornado See Appendix A for this complete information	Tornado History Project, NCDC, SHELDUS, The Jefferson Reporter,	Map is available See Chapter II. Section V.	
Lightning See Appendix A for this complete information	NCDC, SHELDUS,	No map is available	
Tropical Storms See Appendix A for this complete information	NCDC, SHELDUS,	No map is available	
Thunderstorm Winds See Appendix A for this complete information	NCDC, SHELDUS,	No map is available Map is available for wind zone	
Wildfire See Appendix A for this complete information	GFC	Map is available for fire danger zones	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Avera
Hazard: Dam Failure

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	648	648	100.000%	5,033,888	5,033,888	100.000%	246	246	100%
Commercial	30	30	100.000%	79,148	79,148	100.000%	246	246	100%
Industrial	0	0	100.000%	0	0	100.000%	0	0	100%
Agricultural/Forestry	16	16	100.000%	485,968	485,968	100.000%	4	4	100%
Religious/Non-profit	22	22	100.000%	458,000	458,000	100.000%	246	246	100%
Government	26	26	100.000%	198,958	198,958	100.000%	7	7	100%
Education	0	0	100.000%	0	0	100.000%	0	0	100%
Utilities	3	3	100.000%	377,345	377,345	100.000%	2	2	100%
Total	745	745	100.000%	6,633,305	6,633,305	100.000%	246	246	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?		N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?		N
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?		N
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		N
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	Y	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Avera
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	678	0	0.00%	4,996,983	0	0.00%	246	0	0%
Commercial	33	0	0.00%	226,345	0	0.00%	246	0	0%
Industrial	0	0	0.00%	0	0	0.00%	0	0	0%
Agricultural/Forestry	15	0	0.00%	346,950	0	0.00%	4	0	0%
Religious/Non-profit	23	0	0.00%	391,112.50	0	0.00%	246	0	0%
Government	24	0	0.00%	161,477.50	0	0.00%	7	0	0%
Education	0	0	0.00%	0	0	0.00%	0	0	0%
Utilities	3	0	0.00%	385,070	0	0.00%	2	0	0%
Total	776	0	0.00%	6,507,938	0	0.00%	246	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Avera

Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	678	678	100.00%	4,996,983	4,996,983	100.00%	246	246	100%
Commercial	33	33	100.00%	226,345	226,345	100.00%	246	246	100%
Industrial	0	0	100.00%	0	0	100.00%	0	0	100%
Agricultural/Forestry	15	15	100.00%	346,950	346,950	100.00%	4	4	100%
Religious/Non-profit	23	23	100.00%	391,112.50	391,112.50	100.00%	246	246	100%
Government	24	24	100.00%	161,477.50	161,477.50	100.00%	7	7	100%
Education	0	0	100.00%	0	0	100.00%	0	0	100%
Utilities	3	3	100.00%	385,070	385,070	100.00%	2	2	100%
Total	776	776	100.00%	6,507,938	6,507,938	100.00%	246	246	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Bartow
Hazard: Dam Failure

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	533	533	100.000%	6,397,115	6,397,115	100.000%	286	286	100%
Commercial	94	94	100.000%	1,210,733	1,210,733	100.000%	286	286	100%
Industrial	0	0	100.000%	-	-	100.000%	0	0	100%
Agricultural/Forestry	4	4	100.000%	1,977,710	1,977,710	100.000%	0	0	100%
Religious/Non-profit	15	15	100.000%	324,838	324,838	100.000%	286	286	100%
Government	27	27	100.000%	565,448	565,448	100.000%	7	7	100%
Education	0	0	100.000%	-	-	100.000%	0	0	100%
Utilities	4	4	100.000%	1,977,710	1,977,710	100.000%	2	2	100%
Total	677	677	100.000%	12,453,553	12,453,553	100.000%	286	286	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?		N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?		N
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?		N
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		N
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	Y	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Bartow
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	568	3	0.528%	6,228,935	32,899	0.528%	286	8	3%
Commercial	105	0	0.000%	1,405,670	0	0.000%	286	0	0%
Industrial	0	0	0.000%	0	0	0.000%	0	0	0%
Agricultural/Forestry	23	2	8.696%	619,517.5	53,871	8.696%	0	0	0%
Religious/Non-profit	18	0	0.000%	290,102.5	0	0.000%	286	0	0%
Government	26	0	0.000%	455,605	0	0.000%	7	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	5	0	0.000%	2,059,325	0	0.000%	2	0	0%
Total	745	5	0.671%	11,059,155	86,770	0.785%	286	8	

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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Bartow

Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	568	568	100.00%	6,228,935	6,228,935	100.00%	286	286	100%
Commercial	105	105	100.00%	1,405,670	1,405,670	100.00%	286	286	100%
Industrial	0	0	100.00%	0	0	100.00%	0	0	100%
Agricultural/Forestry	23	23	100.00%	619,517.5	619,517.5	100.00%	0	0	100%
Religious/Non-profit	18	18	100.00%	290,102.5	290102.5	100.00%	286	286	100%
Government	26	26	100.00%	455,605	455,605	100.00%	7	7	100%
Education	0	0	100.00%	0	0	100.00%	0	0	100%
Utilities	5	5	100.00%	2,059,325	2,059,325	100.00%	2	2	100%
Total	745	745	100.00%	11,059,155	11,059,155	100.00%	286	286	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Jefferson 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	27,827	87	0.313%	344,194,010	1,102,385	0.320%	16,930	191	1%
Commercial	3,315	0	0.000%	126,034,542.50	0	0.000%	16,930	0	0%
Industrial	358	3	0.838%	135,832,145	1,208,943	0.890%	1,865	114	6%
Agricultural/Forestry	7,690	114	1.482%	467,612,760	6,262,049	1.339%	622	43	7%
Religious/Non-profit	748	0	0.000%	28,170,852.50	0	0.000%	16,930	0	0%
Government	617	0	0.000%	46,467,097.50	0	0.000%	278	0	0%
Education	17	0	0.000%	10,481,132.50	0	0.000%	3,071	0	0%
Utilities	54	4	7.407%	129,575,762.50	2,858,489	2.206%	30	1	3%
Total	40,626	208	0.512%	1,288,368,303	11,431,866	0.887%	16,930	349	

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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Jefferson County All Jurisdictions
Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	27,827	27,827	100.00%	344,194,010	344,194,010	100.00%	16,930	16,930	100%
Commercial	3,315	3,315	100.00%	126,034,542.50	126,034,542.50	100.00%	16,930	16,930	100%
Industrial	358	358	100.00%	135,832,145	135,832,145	100.00%	1,865	1,865	100%
Agricultural/Forestry	7,690	7,690	100.00%	467,612,760	467,612,760	100.00%	622	622	100%
Religious/Non-profit	748	748	100.00%	28,170,852.50	28,170,852.50	100.00%	16,930	16,930	100%
Government	617	617	100.00%	46,467,097.50	46,467,097.50	100.00%	278	278	100%
Education	17	17	100.00%	10,481,132.50	10,481,132.50	100.00%	3,071	3,071	100%
Utilities	54	54	100.00%	129,575,762.50	129,575,762.50	100.00%	30	30	100%
Total	40,626	40,626	100.00%	1,288,368,303	1,288,368,303	100.00%	16,930	16,930	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Jefferson County All Jurisdictions
Hazard: Dam Failure

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	25,744	25,744	100.000%	339,986,035	339,986,035	100.000%	16,930	16,930	100%
Commercial	3,107	3,107	100.000%	128,821,310	128,821,310	100.000%	16,930	16,930	100%
Industrial	369	369	100.000%	228,903,453	228,903,453	100.000%	1,865	1,865	100%
Agricultural/Forestry	6,789	6,789	100.000%	495,536,008	495,536,008	100.000%	622	622	100%
Religious/Non-profit	680	680	100.000%	28,022,263	28,022,263	100.000%	16,930	16,930	100%
Government	587	587	100.000%	48,191,470	48,191,469	100.000%	278	278	100%
Education	38	38	100.000%	10,745,091	10,745,091	100.000%	3,071	3,071	100%
Utilities	49	49	100.000%	117,891,820	117,891,820	100.000%	30	30	100%
Total	37,363	37,363	100.000%	1,398,097,448	1,398,097,447	100.000%	16,930	16,930	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Louisville
Hazard: Dam Failure

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	3,318	3,318	100.000%	46,372,040	46,372,040	100.000%	2,493	2,493	100%
Commercial	902	902	100.000%	38,884,098	38,884,098	100.000%	2,493	2,493	100%
Industrial	24	24	100.000%	1,299,218	1,299,218	100.000%	318	318	100%
Agricultural/Forestry	23	23	100.000%	675,083	675,083	100.000%	8	8	100%
Religious/Non-profit	97	97	100.000%	6,659,340	6,659,340	100.000%	2,493	2,493	100%
Government	181	181	100.000%	20,256,798	20,256,798	100.000%	100	100	100%
Education	3	3	100.000%	55,940	55,940	100.000%	568	568	100%
Utilities	3	3	100.000%	3,894,490	3,894,490	100.000%	6	6	100%
Total	4,551	4,551	100.000%	118,097,005	118,097,005	100.000%	2,493	2,493	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?		N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?		N
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?		N
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		N
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	Y	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Louisville
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	3,439	0	0.00%	45,890,437.50	0	0.00%	2,493	0	0%
Commercial	966	0	0.00%	38,691,782.50	0	0.00%	2,493	0	0%
Industrial	25	0	0.00%	1,000,982.50	0	0.00%	318	0	0%
Agricultural/Forestry	20	8	40.00%	469,970	187,988	40.00%	8	8	0%
Religious/Non-profit	103	0	0.00%	6,887,522.50	0	0.00%	2,493	0	0%
Government	183	0	0.00%	18,512,977.50	0	0.00%	100	0	0%
Education	0	0	0.00%	0.00	0	0.00%	568	0	0%
Utilities	5	1	20.00%	3,950,737.50	790,148	20.00%	6	1	0%
Total	4,741	9	0.190%	115,404,410	978,136	0.848%	2,493	9	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Louisville

Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	3,439	3439	100.000%	45,890,437.50	45,890,437.50	100.000%	2,493	2,493	100%
Commercial	966	966	100.000%	38,691,782.50	38,691,782.50	100.000%	2,493	2,493	100%
Industrial	25	25	100.000%	1,000,982.50	1,000,982.50	100.000%	318	318	100%
Agricultural/Forestry	20	20	100.000%	469,970	469,970	100.000%	8	8	100%
Religious/Non-profit	103	103	100.000%	6,887,522.50	6,887,522.50	100.000%	2,493	2,493	100%
Government	183	183	100.000%	18,512,977.50	18,512,977.50	100.000%	100	100	100%
Education	0	0	100.000%	0.00	0.00	100.000%	568	568	100%
Utilities	5	5	100.000%	3,950,737.50	3,950,737.50	100.000%	6	6	100%
Total	4,741	4,741	100.000%	115,404,410	115,404,410	100.000%	2,493	2,493	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Stapleton
Hazard: Dam Failure

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	812	812	100.000%	8,880,363	8,880,363	100.000%	438	438	100%
Commercial	75	75	100.000%	873,823	873,823	100.000%	438	438	100%
Industrial	4	4	100.000%	19,825	19,825	100.000%	0	0	100%
Agricultural/Forestry	6	6	100.000%	1,013,588	1,013,588	100.000%	4	4	100%
Religious/ Non-profit	19	19	100.000%	423,808	423,808	100.000%	438	438	100%
Government	32	32	100.000%	678,190	678,190	100.000%	12	12	100%
Education	9	9	100.000%	180,330	180,330	100.000%	0	0	100%
Utilities	6	6	100.000%	1,013,588	1,013,588	100.000%	2	2	100%
Total	963	963	100.000%	13,083,513	13,083,513	100.000%	438	438	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?		N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?		N
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?		N
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		N
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	Y	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Stapleton
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	872	15	1.720%	8,862,469	152,451	1.720%	438	27	6%
Commercial	81	0	0.00%	805,115	0	0.000%	438	0	0%
Industrial	0	0	0.00%	0	0	0.000%	0	0	0%
Agricultural/Forestry	57	1	1.754%	1,369,993	24,035	1.754%	4	4	100%
Religious/ Non-profit	23	0	0.00%	376,522.50	0	0.000%	438	0	0%
Government	42	0	0.00%	787,460	0	0.000%	12	0	0%
Education	0	0	0.00%	0	0	0.000%	0	0	0%
Utilities	6	0	0.00%	1,165,475	0	0.000%	2	0	0%
Total	1,081	16	1.480%	13,367,032.50	176,486	1.320%	438	31	

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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Stapleton

Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	872	872	100.00%	8,862,469	8,862,469	100.00%	438	438	100%
Commercial	81	81	100.00%	805,115	805,115	100.00%	438	438	100%
Industrial	0	0	100.00%	0	0	100.00%	0	0	100%
Agricultural/Forestry	57	57	100.00%	1,369,993	1,369,993	100.00%	4	4	100%
Religious/ Non-profit	23	23	100.00%	376,522.50	376,522.50	100.00%	438	438	100%
Government	42	42	100.00%	787,460	787,460	100.00%	12	12	100%
Education	0	0	100.00%	0	0	100.00%	0	0	100%
Utilities	6	6	100.00%	1,165,475	1,165,475	100.00%	2	2	100%
Total	1,081	1,081	100.00%	13,367,032.50	13,367,032.50	100.00%	438	438	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Unincorporated Jefferson County
Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	16,168	16,168	100.00%	201,060,195	201,060,195	100.000%	9,219	9,219	100%
Commercial	924	924	100.00%	35,222,695	35,222,695	100.000%	9,219	9,219	100%
Industrial	157	157	100.00%	68,477,190	68,477,190	100.000%	781	781	100%
Agricultural/Forestry	7,501	7,501	100.00%	461,839,062.50	461,839,062.50	100.000%	586	586	100%
Religious/ Non-profit	402	402	100.00%	13,814,122.50	13,814,122.50	100.000%	9,219	9,219	100%
Government	132	132	100.00%	18,872,065	18,872,065	100.000%	79	79	100%
Education	15	15	100.00%	7,145,790	7,145,790	100.000%	1,259	1,259	100%
Utilities	20	20	100.00%	112,850,212.50	112,850,212.50	100.000%	12	12	100%
Total	25,319	25,319	100.00%	919,281,332.50	919,281,332.50	100.000%	9,219	9,219	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Unincorporated Jefferson County
Hazard: Dam Failure

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	14,580	14,580	100.000%	194,400,125	194,400,125	100.000%	9,219	9,219	100%
Commercial	911	911	100.000%	41,068,853	41,068,853	100.000%	9,219	9,219	100%
Industrial	165	165	100.000%	171,488,863	171,488,863	100.000%	781	781	100%
Agricultural/Forestry	6,663	6,663	100.000%	488,564,273	488,564,273	100.000%	586	586	100%
Religious/ Non-profit	373	373	100.000%	13,881,963	13,881,963	100.000%	9,219	9,219	100%
Government	117	117	100.000%	18,480,838	18,480,838	100.000%	79	79	100%
Education	22	22	100.000%	9,945,283	9,945,283	100.000%	1,259	1,259	100%
Utilities	19	19	100.000%	102,098,505	102,098,505	100.000%	12	12	100%
Total	22,850	22,850	100.000%	1,039,928,700	1,039,928,700	100.000%	9,219	9,219	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?		N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?		N
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?		N
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		N
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	Y	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Unincorporated Jefferson 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.

	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	16,168	15	0.093%	201,060,195	186,535	0.093%	9,219	48	1%
Commercial	924	0	0.000%	35,222,695	0	0.000%	9,219	0	0%
Industrial	157	0	0.000%	68,477,190	0	0.000%	781	0	0%
Agricultural/Forestry	7,501	87	1.160%	461,839,062.50	5,356,619	1.160%	586	27	5%
Religious/ Non-profit	402	0	0.000%	13,814,122.50	0	0.000%	9,219	0	0%
Government	132	0	0.000%	18,872,065	0	0.000%	79	0	0%
Education	15	0	0.000%	7,145,790	0	0.000%	1,259	0	0%
Utilities	20	0	0.000%	112,850,212.50	0	0.000%	12	0	0%
Total	25,319	102	0.403%	919,281,332.50	5,543,154	0.603%	9,219	75	

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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Wadley
Hazard: Dam Failure

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	2,852	2,852	100.000%	33,301,175	33,301,175	100.000%	2,061	2,061	100%
Commercial	364	364	100.000%	13,931,848	13,931,848	100.000%	2,061	2,061	100%
Industrial	104	104	100.000%	36,872,950	36,872,950	100.000%	454	454	100%
Agricultural/Forestry	50	50	100.000%	1,783,253	1,783,253	100.000%	12	12	100%
Religious/ Non-profit	54	54	100.000%	1,726,628	1,726,628	100.000%	2,061	2,061	100%
Government	102	102	100.000%	3,002,377	3,002,377	100.000%	36	36	100%
Education	2	2	100.000%	305,201	305,201	100.000%	292	292	100%
Utilities	10	10	100.000%	4,684,903	4,684,903	100.000%	3	3	100%
Total	3,538	3,538	100.000%	95,608,333	95,608,333	100.000%	2,061	2,061	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?		N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?		N
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?		N
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		N
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	Y	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Wadley
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	3002	15	0.500%	31,666,725	158,228	0.500%	2,061	15	1%
Commercial	411	0	0.000%	15,354,130	0	0.000%	2,061	0	0%
Industrial	106	2	1.887%	56,965,835	1,074,827	1.887%	454	2	0%
Agricultural/Forestry	53	12	22.642%	2,068,570	468,355	22.642%	12	12	100%
Religious/ Non-profit	61	0	0.000%	1,738,690	0	0.000%	2,061	0	0%
Government	95	0	0.000%	1,783,117.50	0	0.000%	36	0	0%
Education	2	0	0.000%	3,335,342.50	0	0.000%	292	0	0%
Utilities	10	1	10.000%	5,325,452.50	532,545	10.000%	3	1	33%
Total	3740	30	0.802%	118,237,862.50	2,233,956	1.889%	2,061	30	

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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Wadley

Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	3,002	3,002	100.00%	31,666,725	31,666,725	100.00%	2,061	2,061	100%
Commercial	411	411	100.00%	15,354,130	15,354,130	100.00%	2,061	2,061	100%
Industrial	106	106	100.00%	56,965,835	56,965,835	100.00%	454	454	100%
Agricultural/Forestry	53	53	100.00%	2,068,570	2,068,570	100.00%	12	12	100%
Religious/ Non-profit	61	61	100.00%	1,738,690	1,738,690	100.00%	2,061	2,061	100%
Government	95	95	100.00%	1,783,117.50	1,783,117.50	100.00%	36	36	100%
Education	2	2	100.00%	3,335,342.50	3,335,342.50	100.00%	292	292	100%
Utilities	10	10	100.00%	5,325,452.50	5,325,452.50	100.00%	3	3	100%
Total	3,740	3,740	100.00%	118,237,862.50	118,237,862.50	100.00%	2,061	2,061	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Wrens
Hazard: Dam Failure

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	3,001	3,001	100.000%	45,601,330	45,601,330	100.000%	2,187	2,187	100%
Commercial	731	731	100.000%	32,772,810	32,772,810	100.000%	2,187	2,187	100%
Industrial	72	72	100.000%	19,222,598	19,222,598	100.000%	312	312	100%
Agricultural/Forestry	27	27	100.000%	1,036,135	1,036,135	100.000%	8	8	100%
Religious/ Non-profit	100	100	100.000%	4,547,688	4,547,688	100.000%	2,187	2,187	100%
Government	102	102	100.000%	5,008,863	5,008,862	100.000%	37	37	100%
Education	2	2	100.000%	258,338	258,338	100.000%	952	952	100%
Utilities	4	4	100.000%	3,845,280	3,845,280	100.000%	3	3	100%
Total	4,039	4,039	100.000%	112,293,040	112,293,039	100.000%	2,187	2,187	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?		N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?		N
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?		N
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?		N
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?	Y	

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Wrens
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	3,100	39	1.258%	45,488,267.50	572,272	1.258%	2,187	93	4%
Commercial	795	0	0.000%	34,328,805	0	0.000%	2,187	0	0%
Industrial	70	1	1.429%	9,388,137.50	134,116	1.429%	312	112	36%
Agricultural/Forestry	21	4	19.048%	898,697.50	171,180	19.048%	8	0	0%
Religious/ Non-profit	118	0	0.000%	4,672,780	0	0.000%	2,187	0	0%
Government	115	0	0.000%	5,894,395	0	0.000%	37	0	0%
Education	0	0	0.000%	0	0	0.000%	952	0	0%
Utilities	5	2	40.000%	3,839,490	1,535,796	40.000%	3	0	0%
Total	4,224	46	1.089%	104,510,572.50	2,413,364	2.309%	2,187	205	

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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

GEMA Worksheet #3a Inventory of Assets

Jurisdiction: Wrens

Hazard: Drought, Wildfire, Severe Weather, Winter Storm, Earthquake

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	3,100	3,100	100.00%	45,488,267.50	45,488,267.50	100.00%	2,187	2,187	100%
Commercial	795	795	100.00%	34,328,805	34,328,805	100.00%	2,187	2,187	100%
Industrial	70	70	100.00%	9,388,137.50	9,388,137.50	100.00%	312	312	100%
Agricultural/Forestry	21	21	100.00%	898,697.50	898,697.50	100.00%	8	8	100%
Religious/ Non-profit	118	118	100.00%	4,672,780	4,672,780	100.00%	2,187	2,187	100%
Government	115	115	100.00%	5,894,395	5,894,395	100.00%	37	37	100%
Education	0	0	100.00%	0	0	100.00%	952	952	100%
Utilities	5	5	100.00%	3,839,490	3,839,490	100.00%	3	3	100%
Total	4,224	4,224	100.00%	104,510,572.50	104,510,572.50	100.00%	2,187	2,187	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?	Y	
2. Do you know whether your critical facilities will be operational after a hazard event?	Y	
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N

Jefferson County
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	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	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0	0	0
Floods	9	95	1	4	8	10.56	9.47%	0.1	0.2	0.16
Wildfire	180	65	290	1000	2333	0.36	276.92%	29	50	46.66
Earthquake	0	68	0	0	0	#DIV/0!	0.00%	0	0	0
Tornado	15	54	3	6	12	3.60	27.78%	0.3	0.3	0.24
Thunderstorm	89	63	26	48	86	0.71	141.27%	2.6	2.4	1.72
Hail	32	65	3	17	30	2.03	49.23%	0.3	0.85	0.6
Drought	22	24	15	20	22	1.09	91.67%	1.5	1	0.44
Extreme Heat	4	74	0	3	4	18.50	5.41%	0	0.15	0.08
Winter Weather	17	74	2	6	17	4.35	22.97%	0.2	0.3	0.34
Lightning	4	74	0	1	4	18.50	5.41%	0	0.05	0.08
Landslide						#DIV/0!	#DIV/0!	0	0	0
Dam Failure	1	34	0	0	1	34.00	2.94%	0	0	0.02
Tropical Storm	13	22	3	11	13	1.69	59.09%	0.3	0.55	0.26
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	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 accuarcy 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

APPENDIX E

COPIES OF REQUIRED PLANNING DOUCMENTATIONS

Public Meeting

Jefferson County Pre-Disaster Plan

Kickoff Meeting

July 23 @ 10:00 A.M.

JEFFERSON COUNTY EOC

(FORMER ARMORY BUILDING)

1841 Hwy 24 West, Louisville, GA 30434

Jefferson County is updating its FEMA-approved Pre-Disaster Hazard Mitigation Plan for 2025. You're invited to learn about the plan and give your input regarding local natural hazards.

Call Jefferson Co. EMA @ 478 625 4102 for more info.

Persons with special needs relating to handicapped accessibility or foreign language shall contact the Jefferson County Board of Commissioners at (478) 625-3332 before 07/19/24.

LOCALiQ

The Augusta Chronicle
Athens Banner-Herald
Savannah Morning News

PO Box 631697 Cincinnati, OH 45263-1697

AFFIDAVIT OF PUBLICATION

April Young
Ann Tanner
Not specified
Po Box 658

Louisville GA 30434-0658

STATE OF GEORGIA, COUNTY OF JEFFERSON & GLASCOCK

The Jefferson News & Farmer, a newspaper that is generally circulated in the counties of Jefferson & Glascock and in the area adjacent thereto, State of Georgia, printed and published and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issues dated on:

07/18/2024

and that the fees charged are legal.
Sworn to and subscribed before on 07/18/2024

Legal Clerk

Notary, State of WI, County of Brown

6/30/2025

My commission expires

Publication Cost:	$52.92	
Tax Amount:	$0.00	
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Customer No:	757732	1
PO #:	Pre- Disaster Hazard Mitigation Plan Update	

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Please do not use this form for payment remittance

AMY KOKOTT
Notary Public
State of Wisconsin

Public Meeting
Jefferson County Pre- Disaster Hazard Mitigation Plan Update

Jefferson County will begin its five-year update of their FEMA approved Pre-Disaster Hazard Mitigation Plan. As part of the planning process, Jefferson County is holding a public kick-off meeting on July 23, 2024 at 10:00 am at the Jefferson County EOC Building (Former Armory Building), 1841 Hwy 24 West, Louisville, 30434. Civic organizations, local businesses, and citizens of Jefferson County and the Cities of Avera, Bartow, Louisville, Stapleton, Wadley, and Wrens are encouraged to attend. The purpose of the meeting will be to outline the planning process and gather public input. Please contact Jefferson County EMA Director Jim Anderson at 478-625-4102 if you have any questions.

Jefferson 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 Jerry Coalson, County Administrator at 478-625-3332 prior to July 19, 2024. This person can be located at Jefferson County Board of Commissioners, 217 E Broad Street, Louisville, GA between the hours of 8:30 am – 4:30 pm, Monday through Friday, except holidays. Persons with hearing disabilities can contact the Georgia Relay Service at (TDD) 1-800-255-0056 or (Voice) 1-800-255-0135.

EOC CHECK IN / OUT

INCIDENT / MEETING:	Hazard Mitigation Kick-Off Meeting	DATE	07/23/2024

NAME	AGENCY	SIGNATURE	EMAIL
Jim Anderson	Jefferson Co Sup	[illegible]	janderson@jeffersoncountyga.gov
Ann Anderson	Jefferson Co EMA	[illegible]	amameria.anderson@ychao.com
Jerry Coalson	Jefferson Co	[illegible]	jcoalson@jeffersoncountyga.gov
Joanna A. Hattaway	Jefferson Co Health Dept	Joanna a Hattaway	Joanna.Hattaway@dph.ga.gov
Ken Hildebrant	BOE	[illegible]	hildebrantk@jefferson.k12.ga.us
Scott Tiner	JCBOE	[illegible]	tiners@jefferson.k12.ga.us
April Young	CSRA RC	AYoung	ayoung@csrarc.ga.gov
Ricky Thrift	Wiens	[illegible]	same
Parish Howard	News + Farmer		phoward1@gannett.com
James Davis	LFD	[illegible]	jdavis@louisvillega.gov
Keith Bouchillon	Wrens FD	KeithB	firechief@cityofwrens.com
Earnestine Walker		Earnestine Walker	
Ricky Sapp	City of Louisville	[illegible]	rsapp@louisvillega.gov
~~Jefferson~~ Tammie Bennett	Jeff. Co. Leisure	Tammie Bennett	tbennett@jeffersoncountyga.gov

ICS 211

JEFFERSON COUNTY HAZARD MITIGATION PLAN MEETING
FRIDAY, AUGUST 23, 2024 10:00 AM

NAME	ORGANIZATION	TITLE	EMAIL
Leigh Davis	Jefferson Co. Health Dept	RN- County Nurse Manager	Leigh.Davis@dph.ga.gov
Ken Hildebrandt	Jefferson Co BOE	Operations	hildebrandtk@jefferson.k12.ga.us
Tim Moor	Jefferson Co Sheriff's Office	Chief Deputy	Tmoore@jeffersoncountyga.gov
Jimmy Miller	Louisville PD	Chief	Jmiller@louisvillega.gov
James Davis	Louisville Fire	Chief	Jdavis@Louisvillega.gov
Keith Bowlman	Wrens Fire	Chief	firechief@cityofwrens.com
[illegible]	Wrens	Manager	same

JEFFERSON COUNTY HAZARD MITIGATION PLAN MEETING
FRIDAY, AUGUST 23, 2024 10:00 AM

NAME	ORGANIZATION	TITLE	EMAIL
Jim Anderson	Jefferson Co EMA	Directo	janderson@jeffersoncountyga.gov
Ricky Sapp	City of Louisville	Administrato	rsapp@louisvillega.gov

AGENDA

Jefferson County Pre-Disaster Mitigation Meeting
August 23, 2024 10:00 AM

Chapter 1 updates

Update chart on page 11

Update rail traffic, air service, electricity page 14

Update natural gas, sewer, sewer and wastewater systems, water distribution systems, solid waste, and communications page 15

Update fire and emergency services page 16

Update fire department chart, law enforcement chart, and jail info page 17

Chapter 3 updates

Update goals

Update objectives on pages 63, 64, 65, 66

*If we have enough time go over mitigation actions

*Need annual budgets from each jurisdiction

Next meeting September 12th at 10 am

Contact:
CSRA Regional Commission
April Young
706-210-2022
ayoung@csrarc.ga.gov

JEFFERSON COUNTY HAZARD MITIGATION PLAN MEETING
THURSDAY, SEPTEMBER 12, 2024 10:00 AM

NAME	ORGANIZATION	TITLE	EMAIL
Jerry Coalson	Jefferson County	County Administrator	jcoalson@jeffersoncountyga.gov
DARTY THRIFT	WRENS	City Mgr.	same
KEITH BOLLINGER	WRENS	FIRE CHIEF	firechief@cityofwrens.com
Leigh Davis	Jefferson Co. Health Dept	Jefferson Co. Health Dept	Leigh.Davis@dph.ga.gov
SCOTT TINER	JEFFERSON CO. BOE	DIRECTOR OF MAINTENANCE	tiners@jefferson.k12.ga.us
Anna Anderson	Jefferson CO EMA.	EM Specialist	Annamaria_anderson@yahoo.com
Jim Anderson	Jefferson CO EMA-OHS	Director	janderson@jeffersoncountyga.gov

JEFFERSON COUNTY HAZARD MITIGATION PLAN MEETING
THURSDAY, SEPTEMBER 12, 2024 10:00 AM

NAME	ORGANIZATION	TITLE	EMAIL
Tammie Bennett	Jeff. CO. Leisure Center	SR. Director	tbennett@jeffersoncountyga.gov
Tim Moore	Jefferson Co Sheriff's Office	Chief Deputy	Tmoore@jeffersonCountyga.gov.
John Maynard	Wrens Police Department	Chief	wrenspolicechief@cityofwrens.com