

**Local Hazard Mitigation Plan Update
Lincoln County
City of Lincolnton
Plan Approval: May 4, 2026 - May 3, 2031**



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CHAPTER 1: 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 1 Section	Updates to Section
I. Purpose and Need of the Plan, Authority & Statement of Problem	Updated text of this section.
II. Local methodology, a 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	All sections of the original plan were analyzed and revised.
IV. Organization of the Plan	The plan is organized by GEMA local planning Local Hazard Mitigation Plan Update Template 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 and submitted to GEMA and FEMA review.
VIII. Community Data (demographics, census, commerce, history, etc.)	Updated demographic and added additional information for each jurisdiction

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

The Lincoln County 2025 Plan Update is the review and improvement on our Multi-Hazard Pre-Disaster Mitigation Plan adopted in March of 2021. The 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 act provides federal assistance to state and local emergency management and other disaster response organizations to reduce damage from disasters. The plan has involved multiple 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 update covers all of Lincoln County to include the City of Lincolnton. 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 and possible sources of project funding. It also identifies mitigation strategies implemented since 2020.

The plan also contains the following information on:

- The vision of mitigation in our community.
- The profile of Lincoln 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.
- Lincoln County's past and predicted exposure to natural hazards and the potential risks that include the impacts on critical infrastructure with anticipated losses were documented.
- An overview of Lincoln 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 Lincoln County's current policies, goals and regulations that pertain to hazard mitigation.
- Documentation of the planning process.
- Updated hazard events that occurred since 2020.
- Updated critical facilities that have been added since 2020.
- Documented current mitigation strategies implemented since 2020; and
- Examined and updated mitigation strategy goals, objectives and action steps.

This update is the combined efforts of Lincoln County and the City of Lincolnton. A collaboration to identify the community's risks and work collectively toward the prevention of disasters in the community is in the county's best interest, the Lincoln County Emergency Management Agency (EMA) took the lead role in the update. Under the agency's leadership, there has been an endorsement and a commitment by Lincoln County as well as the City of Lincolnton.

Continued mitigation planning is imperative to lessen the impacts of disasters in Lincoln County and the City of Lincolnton. 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 to plan implementation which 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 Lincoln County Board of Commissioners (BOC) contracted with the Central Savannah River Area Regional Commission (RC) to assist in the plan update. The RC was tasked to review the current plan and identify new information 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

Casey Broom was tasked with developing the Hazard Mitigation Planning Committee. Table 1.2 identifies the 2025 members.

Table 1.2

Name	Title	Jurisdiction
Casey Broom	EMA Director	Lincoln County EMA
Earnest Norman	Council Member	City of Lincolnton
Ben Alligood	Treatment Operator WPCP	City of Lincolnton
Micheal Newman	Waste Water Superintendent	Lincoln County
Furman Parton	Water Superintendent	City of Lincolnton
Clinton Glaze	Director Recreation	Lincoln County
Clay Smith	Sheriff	Lincoln County
Howie Gumby	Superintendent School System	Lincoln County BOE
Delaney Mims	Director Senior Center	Lincoln County
Matthew Goldman	Fire Chief	City of Lincolnton
Kerri Parton	Library Branch Manager	Lincoln County
Brandon Lively	Chief of Police	City of Lincolnton
Ernie Doss	Finance Director	Lincoln County
Mike McCombs	Mayor	City of Lincolnton
Robert Seymor	Public Works Director	Lincoln County
Walker T Norman	BOC Chairman	Lincoln County
Wanda Duncan	Chief of Staff LC EMA	Lincoln County
Tim Quarles	Coroner	Lincoln County
John Cook	Chief Deputy Sheriff's Office	Lincoln County
Robbie Cobb	Paramedic LC EMA	Lincoln County

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

- Lincoln County School District was responsible for providing structural replacement and content values for all schools as well as square footage and occupancy limits.
- Lincolnton Police Department provided staff support to the planning effort and was responsible for providing structural replacement and content values for all critical facilities as well as square footage and daily occupancy.
- Lincoln County Sheriff's Office provided staff support to the planning effort.
- Lincoln County Health Department and Lincoln County DFCS, identified vulnerable populations. They also provided replacement and content value estimates for their properties.
- Lincoln County and Lincolnton's Volunteer Fire Departments provided staff support to the planning effort and assisted with identifying occupancy limits for some of the critical structures and replacement and content value estimates.
- Lincoln County Road Department provided information on past effects on roads during hazard events.

- Lincoln County officials provided information relative to their jurisdiction and provided replacement and content value estimates for their critical facilities as well as square footage and daily occupancy.
- Georgia Forestry Commission provided data on wildfire events and assisted with the formulation of mitigation measures.
- Lincoln County EMS identified mitigation goals related to evacuation concerns because of natural disasters.
- Lincoln County Development Authority assisted in identifying major businesses.
- Lincoln County Board of Commissioners provided replacement and content value estimates for their critical facilities as well as square footage and daily occupancy.
- Lincoln 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 contained in the plan. Maps are in Appendix A.

Several resources were consulted to facilitate the development of the update. Data was collected from numerous sources, including the National Climatic Data Center (NCDC), 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), and local and regional newspaper articles, as well as personal interviews. Table 1.2 provides a list of existing planning documents used during the update.

Table 1.3

Record of Review		
Existing planning mechanisms	Reviewed? (Yes/No)	Method of use in Hazard Mitigation Plan
Lincoln 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, determining 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

Record of Review		
Existing planning mechanisms	Reviewed? (Yes/No)	Method of use in Hazard Mitigation Plan
The Lincoln County Assets Index	Yes	Review for assets data, tax information
CSRA Regional Plan 2040	Yes	Development trends; Future growth, regional concerns and data

The committee held two meetings over a 9-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.

Table 1.4 provides the dates and synopsis of committee meetings. The kickoff meeting was advertised in *The Lincoln-McCormick Journal Messenger and the Washington News-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 to afford an opportunity for neighboring communities, agencies, businesses, academia and other private and non-profit interests to be involved in the planning process, invitations were extended by email. Invitations were extended to the following counties: Columbia, Elbert, McCormick, McDuffie, and Wilkes including all municipalities located within the counties. It is noted that no public comments or feedback was provided by the public. Copies of correspondence, emails and advertisements are in Appendix E.

Table 1.4

Ad/Meeting Date	Purpose of Meeting
January 9, 2025	Public meeting notice ran in <i>The Journal Messenger and Reporter</i> to advertise the kick-off meeting for January 29, 2025
January 29, 2025	Kick-off meeting was held. Informed participants of general overview of purpose and contents of the update.
May 15, 2025	Meeting with EMA Director to ensure all data collected to date was correct regarding critical facilities. Mitigation strategies were discussed, and critical facility data was reviewed.
July 15, 2025	Meeting with committee. Mitigation strategies were reviewed for completion.
September 10, 2025	Presentation to Lincoln County Senior Center Congregate meal participants by EMA Director and RC.
September 24, 2025	Meeting with committee to ensure all mitigation actions were up to date.
July 6, 2026; July 14, 2026	City of Lincolnton Adoption, Lincoln County Adoption

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 the 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 the county.

SECTION IV. ORGANIZATION OF THE PLAN

The estimated time to complete the plan update was approximately 9 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 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. These goals and objectives are as follows:

- To actively involve and gain support from Lincoln County and the City of Lincolnton for the reduction of disasters in our community.
- Prioritize identified mitigation projects.
- Seek and implement any grant funding for the reduction of disasters.
- Monitor, evaluate, and update the progress of the plan as needed.
- To form partnerships among local, state, and federal agencies to make Lincoln 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; and
- To further enhance common mitigation projects and goals between Lincoln County and the City of Lincolnton.

An HRV assessment was accomplished by compiling and reviewing historical data on the location of specific hazards, the value of existing property in hazard locations, and analyzing the risk to life, property and the environment. 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 to preserve the safety and quality of life of all county residents. In addition, these facilities fulfill important public safety, emergency response, and/or disaster recovery functions. All critical facilities have been added to the Georgia Mitigation Information System (GMIS). Critical facilities for Lincoln County and the City of Lincolnton have been 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 nine major hazards that have the potential to affect Lincoln County: flooding, dam failure, drought, wildfire, tornado, tropical storms, severe weather, earthquakes and winter storms. An updated comprehensive hazard history for Lincoln County and the City of Lincolnton is provided in Appendix A.

Profiling Hazard Events: The committee analyzed the causes and characteristics of each hazard, their past effect to determine which part of the county's population and infrastructure has historically been vulnerable to each specific hazard. An updated profile of each hazard is discussed in Chapter II.

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. Worksheet #3a was updated and is provided in Appendix A outlining this step of the HRV assessment.

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

Mitigation Goals and Objectives: After ensuring that all interested people had been given ample opportunity to contribute to strategy development, mitigation action steps were given priority status by committee members. To evaluate priorities, committee members used the STAPLEE (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) planning tool prepared by FEMA. Mitigation strategy steps were evaluated using the STAPLEE worksheet as the guiding principle to identify the most beneficial and effective action steps for Lincoln 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

Lincoln County and the City of Lincolnton provided active participants in the planning process and have identified mitigation goals, objectives and action items specific to their jurisdiction. The governing bodies for Lincoln County and the City of Lincolnton have formally adopted the Multi-Hazard Pre-Disaster Mitigation Plan.

Representatives from all 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. Collected data was forwarded to the RC for review and plan development. The committee held subsequent meetings to ensure that all information was correct and that all agencies and organizations' input was included.

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

SECTION VII. ADOPTION, IMPLEMENTATION AND MONITORING AND EVALUATION

Adoption Date

Table 1.5

Jurisdiction	Adoption Date
Lincoln County	7/14/2026
City of Lincolnton	7/6/2026

The plan was submitted to GEMA for review and then to FEMA for approval. Lincoln County and the City of Lincolnton served as active participants in the planning process and have identified mitigation goals, objectives, and actions specific to their jurisdiction. Their respective governing bodies have formally adopted the updated plan. The plan is intended to be implemented to enhance and complement state and federal recommendations for the mitigation of natural hazards in the following ways:

- Substantially reduce the risk of life, injuries, and hardship from the destruction caused by natural hazards.
- Create public awareness for the need of individual preparedness and build safer, disaster resistant communities.

- Develop strategies for long-term community sustainability during community disasters; and
- Develop governmental and business continuity plans that will continue essential private sector and governmental activities during disasters.

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

- Develop a strategic mitigation plan for Lincoln 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 Lincoln County on a continual basis; and
- Identify potential funding sources for mitigation projects.

The private sector is often an overlooked segment of the community during disasters. It is vital this sector 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; and
- Partner with businesses in effort to communicate with customers about the community hazards and possible solutions.

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

- Become educated about 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; and
- That individual responsibility for safeguarding you and your family prior to a disaster is essential.

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

SECTION VIII. COMMUNITY DATA

Political Boundaries - Lincoln County



Lincoln County



GA DCA Region 7



Georgia

History: Lincoln County was created on February 20, 1796, and was named after Revolutionary War hero General Benjamin Lincoln, who was a distinguished American patriot, when it became the twenty-fourth county created in Georgia.

Lincoln County has the distinction of being the first county-wide listing in Georgia in the National Register of Historical Places. On September 21, 1993, over 160 historic buildings in Lincoln County were listed in the National Register through the Department of the Interior, National Park Services. The National Register is the federal government's official list of historic buildings, structures, sites, objects and districts worthy of preservation.

Government: Lincoln County is governed by a five-member Board of Commissioners. The county is divided into four commission districts from which part time commissioners are elected to serve four-year terms, and the chairman is elected countywide. The terms are staggered, with district one and district two commissioners being elected in the same year as the governor and district three and district four commissioners and the chairman elected in the same year as the presidential election.

The chairman, who is the chief elected officer responsible for the daily operations of the county government, is elected county wide every four years. As the board's presiding officer, the chairman sets the agenda and is responsible for the orderly conduct of commission meetings.

The only municipality is the City of Lincolnton, which operates a Mayor and City Council-based system of government with five elected council members. Other officials charged with presiding over activities within the city are the Clerk, Attorney, Finance Officer, Code Enforcement, Zoning, Waster Water Superintendent, Municipal Court Judge and Public Works Director.

Demographics: Presently, Lincoln County has a population of 7,726 people. Table 1.6 provides a current comparison of both jurisdictions.

Table 1.6

Category	Lincoln County	Lincolnton
Population	7,726	1,876
Number of Households	3,015	755
Average Household Size	2.5	2.4
Median HH Income	\$50,754	\$36,681

Source: US Census Bureau ACS 2022

Economy: According to the Lincoln County Area Labor Profile, from the Department of Labor, in the 4th quarter of 2023 the average weekly wage for employment was \$863, compared to the statewide average of \$1,331. The county's 2022 annual median household income was \$50,754. In 2024, the total number employed in Lincoln County was 3,374. Of the total work force, 71.9 percent were employed in the private sector and 28.1 percent in the government sector. In 2022, 23 percent of the people in Lincoln County were living on an income of \$24,999 or less. In March 2024, the unemployment rate in Lincoln County was 3.7 percent.

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. Table 1.7 provides a list of jobs, number of establishments and jobs along with average weekly wages per job for the 1st quarter of 2023.

Table 1.7

Lincoln County Industry Mix – 4th Quarter 2023				
INDUSTRY	Average Number of Establishments	Average Monthly Employment	Average Monthly Percent	Average Weekly Wages
Goods-Producing	41	422	29.7	1,121
Agriculture, Forestry, Fishing & Hunting	11	104	7.3	1,159
Construction	24	238	16.8	1,219
Manufacturing	6	80	5.6	772
Beverage and Tobacco Product	2	*	*	*
Textile Mills	0	*	*	*
Fabricated Metal Product	1	*	*	*
Machinery	1	*	*	*
Transportation Equipment	1	*	*	*
Service-Providing	116	578	40.7	775
Utilities	1	*	*	*
Wholesale Trade	6	37	2.6	1,226
Retail Trade	28	167	11.8	594
Transportation and Warehousing	11	18	1.3	1,054
Information	1	0	0.0	0
Finance and Insurance	6	52	3.7	2,120
Real Estate and Rental and Leasing	8	28	2.0	721
Professional, Scientific & Technical Svc	11	39	2.7	968
Management of Companies and Enterprises	0	0	0.0	0
Admin., Support, Waste Mgmt, Remediation	8	38	2.7	633

Lincoln County Industry Mix – 4th Quarter 2023				
Educational Services	0	*	*	*
Health Care and Social Assistance	6	18	1.3	764
Arts, Entertainment, and Recreation	5	21	1.5	479
Accommodation and Food Services	13	95	6.7	357
Other Services (except Public Admin.)	12	54	3.8	552
Unclassified - industry not assigned	26	21	1.5	717
Total - Private Sector	183	1,021	71.9	917
Total - Government	14	399	28.1	725
Federal Government	1	12	0.8	1,213
State Government	6	33	2.3	589
Local Government	7	354	24.9	721
ALL INDUSTRIES	197	1,420	100.0	863

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

Climate: Lincoln County, GA, gets 45 inches of rain per year. The number of days with any measurable precipitation is 100. On average, there are 218 sunny days per year in Lincoln County, GA. The July high is around 92 degrees, and the January low is 32.

Table 1.8

Climate	Lincoln, GA
Rainfall (in.)	45
Snowfall (in.)	.0
Precipitation Days	100
Sunny Days	218
Avg. July High	92
Avg. Jan. Low	32
Comfort Index (higher=better)	30
UV Index	4.8
Elevation ft.	391

Source: <http://www.bestplaces.net/climate/county/georgia/lincoln>

Physical Features: Lincoln County encompasses an area of roughly 257 square miles (164,480 acres), of which 211.1 square miles is land and 45.9 square miles is water. Lincolnton is the county seat and is located about 50 miles north of Augusta. Lincoln County lies just north of the fall line and thus is located within the Piedmont geologic province. Significant aquifer recharge areas in this province are characterized by thick soils and low slopes.

Lincoln County is in Southern Piedmont. The soil is developed primarily from residuum of igneous and metamorphic rock. They mainly consist of slightly-to-severely eroded sandy loam and clay loam which range in color from dark gray to brown and red. Subsurface horizons are predominantly sandy clay loams to clays which are often of mottled red, yellow, and gray colors. Most of the soil is well-drained and all are acidic. The Cecil, Appling, Durham, Colfas, and Worsham drainage soil catena is the most prevalent soil of the area, comprising more than 50% of the upland soil. Davidson, Mecklenburg, and Iredell soils are the most highly weathered and have

the deepest solum of the soils in the Southern Piedmont. Wichham and Altavista soils are found on alluvial terraces. Southern Piedmont is characterized by steep to gently rolling thin and well drained red soil with sandy loam surface layers over sandy clay to clay subsoils. This area has fair to good suitability for building foundations and fair to poor suitability for septic tanks.

Transportation

Vehicle Traffic: Lincolnton is serviced by US 378 from Washington, Georgia in the west and McCormick, South Carolina in the northeast, and by GA 47 from the major population centers of Augusta-Richmond and Columbia counties. In addition, GA 43 and GA 79 provide access into Lincolnton from surrounding counties. While no Interstate highways pass through Lincoln County, access to I-20, 22 miles to the south of Lincolnton, is provided by GA 43 to US 78 to the Thomson Exit. Signs along I-20 have recently been added to the existing exit signs which indicate access to Lincolnton via this route.

Table 1.9

Mileage by Route and Road System Report 445 for 2018			
	Total Road Mileage (2012)	Lane Mileage	Vehicle Miles Traveled (VMT)
State Route	75.504	154	121,796
County Road	281.020	562	111,356
City Street	17.503	35	6,923
Total	374.027	751	240,075

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

Public Transportation: Public transportation is made available to County residents through GDOT FTA Section 5311. This federally funded program apportions transit assistance funds to rural areas and places having fewer than 50,000 residents. It is administered by the County and the Georgia Department of Transportation (GDOT). Public buses are also used to provide FTA Section 5310 coordinated transportation via sub-contract with Georgia Department of Community Health's vendor.

Rail Traffic: There are no rail lines in Lincoln County

Port and Aviation Facilities: Lincoln County does not contain any port or public aviation facilities; there are several private landing strips. The nearest local airport is 20 miles away in McDuffie County while the nearest commercial air service is in Augusta, 45 miles away. Atlanta-Hartsfield International Airport, located in Atlanta approximately 130 miles from Lincolnton, provides major commercial airline service. The ports of Savannah (185 miles) and Charleston (230 miles) provide port facilities.

Utilities

Electricity: Rayle EMC and Georgia Power provide electrical service to the Lincoln County and the City of Lincolnton.

Natural gas: Natural Gas Services is not available in Lincoln County. Gas is provided by two propane companies: Reed Propane and Wilhoit Gas.

Water: The water supply for Lincoln County is provided by groundwater which provides 0.30 million gallons per day. Lincoln County operates its own water distribution system and purchases treated water from the City of Lincolnton. In the county there are three water storage tanks with a total storage capacity of 900,000 gallons. Groundwater is currently withdrawn from four different wells that pump 75-90 gallons of water per minute. Water is treated at the pump and then distributed. The average daily water consumption in Lincoln County is approximately 300,000 gpd, and 350,000 gpd is the maximum daily consumption. The County has small well systems in the Pointe Shores, Eagle Pointe, and Savannah Bay subdivisions. The systems are fed by a total of seven wells.

The City of Lincolnton withdraws water from Lake Thurmond at the James Allen Reed Water Treatment Plant to serve its 902 water customers and wholesales water to Lincoln County, which serves an additional 1300 customers. In 2004, the city completed a \$6 million USDA project to expand the water treatment plant to 2.0-mgd, construct a new 300,000-gallon elevated water tank, and replace water meters. A subsequent project funded by GEFA and completed in 2008 replaced over 15,000 linear feet of small diameter lines throughout the City with 6 inch and larger lines, providing improved pressures, reliability and improved fire protection throughout Lincolnton.

Sewer: The existing Lincoln County sanitary sewer system is located within the County Limits. In 2001, the County constructed its first sanitary sewer collection system into the Old Petersburg Road area to eliminate problems of exposed raw sewage from failing septic systems. In 2011, the County extended the sewer system into the Black Jack area to also eliminate problems of exposed raw sewage from failing septic systems. Wastewater from the County's collection system is pumped to the nearby City of Lincolnton Water Pollution Control Plant for treatment.

The City of Lincolnton operates a Water Pollution Control Plant off Old Petersburg Road. The facility is permitted to treat and discharge 1,040,000 gpd to Reedy Creek, a tributary of Clarks Hill Reservoir. The existing City of Lincolnton sewerage system is comprised of approximately 3.6 miles of gravity sewer, five pump stations and approximately 7.9 miles of forcemains.

Solid Waste: Lincoln County has mandatory curbside garbage pickup for every residential property in the County. Lincoln County and the City of Lincolnton contract a private waste collection service for garbage service. The city bills for garbage pickup monthly on their water bill. The county bills for garbage annually on tax bill. Although the County does not have dumpster sites, they do have a county convenience center for collection and disposal of inert and recycled materials. The County does not have a land fill.

Communications

Lincoln County's cable services are provided by three companies: Comcast Communication, DirecTV, and Dish Network. Reliant Communications provides internet services through its countywide fiber optic network in Lincoln County. Comcast has started offering internet service in the City of Lincolnton. Since hurricane Helene, many residents have started using Starlink. Local print media consists of *The Lincoln McCormick Journal Messenger* and the *Washington News-Reporter* (which serves as the legal organ of the county) and *The Augusta Chronicle*. Lincoln

County is served by 13 AM radio stations and 16 FM radio stations. Seven television stations in metro Augusta broadcast in Lincoln County. They are WJBF, WAGT, WRDW, WAAU, WBPI, WCES, and WFXG.

Emergency Services

Response: Enhanced 911 Service (E-911) is available 24 hours a day throughout the county and is operated by Lincoln County.

EMA/EMS and Fire/Rescue: The Lincoln County Office of Emergency Services (LCOES) has two stations and covers Emergency Management, Emergency Medical Service, and Fire/Rescue. The LCOES facility manages emergencies from calls of distress to disasters. The LCOES employs a staff of 12 EMP's and two administrative personnel. Several staff are cross trained for fire emergencies. The LCOES has a volunteer division which handles auto extrication and emergency medical response, among other needs, when all ambulances are occupied. The LCOES staffs two ambulances 24/7; however, LCOES has four ambulances total which are rotated in and out of service as needed. LCOES also has two fire engines for which cross-trained personnel from an ambulance crew can operate the fire engine when needed.

LCOES uses the CODERED program to send emergency notifications by phone, email, text and social media to keep citizens informed of emergencies such as evacuation notices, utility outages, water main breaks, fire or floods, chemical spills, or other emergencies. Citizens must register for this service, but it is a free method to protect life and offer safety for residents.

Lincoln County has four fire departments (six stations altogether) located in the incorporated area of Lincoln County and the LCOES has two fire engines. All 70-75 firefighters in the Lincoln County rural fire departments are volunteers. The four rural fire stations are (north to south):

- Beulah VFD is located at SR 79 and Gills Point Road with one fire engine, one tanker, and one brush truck.
- Midway VFD with two stations located at 1059 Bethany Church Road and 2630 Midway Church Road: with two engines, two knockers, and one brush truck.
- Loco VFD with two stations (located at 2650 SR 220 and 2248 Lovelace Road) with two engines, one tanker, one brush truck, and one service truck.
- Martin's Crossroads VFD with two stations (located at 3911 Double Branches Road and 1125 E Hwy 220) with two engines, one brush truck and one service truck.

The volunteer fire fighters are trained to the minimum level required by the State Fire Fighter's Standards and Training office.

The City of Lincolnton has one fire department located uptown on Peachtree Street. There are a total of 16 volunteer firefighters who are trained to state standards, however, two are trained to National Professional Qualifications (NPQ) FF2 and two are trained to NPQ FF1 certification.

Law Enforcement: There are two law enforcement agencies operated by the local jurisdictions, the Lincoln County Sheriff's Department and the Lincolnton Police Department. The Sheriff's

Department operates the law enforcement department and jail. The law enforcement department has sworn officers who are responsible for patrolling unincorporated Lincoln County. The other employees fully staff the Lincoln County Jail. The Lincoln County Jail can house a maximum capacity of 84 inmates (male, female, county, city, and federal). Staff are responsible for inmates' medical, clothing, food, transportation to and from the jail and to court. One unique feature of the Lincoln County Jail is that Lincoln County has a contract with the U.S. Marshall's office for the security and housing of Federal prisoners who are brought to the Jail.

The Lincolnton Police Department employs four sworn officers including the chief. In addition, there is one part-time sworn officer.

CHAPTER 2: NATURAL HAZARD, RISK AND VULNERABILITY (HRV)

The committee identified all natural hazards that could potentially affect Lincoln County and the City of Lincolnton utilizing FEMA Worksheet #1 (Appendix D). Task A of Worksheet #1 instructed committee members to research newspapers and other historical records, existing community plans and reports, as well as internet websites to determine which hazards might occur in Lincoln County. Task B then narrowed the list to only hazards most likely to impact the county by reviewing hazard websites to determine if Lincoln 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, tornado, tropical storms, severe weather, 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 nine hazards mentioned, the entire County is exposed to five: severe weather, winter storms, wildfire, earthquakes, and drought. Flooding is isolated to select areas within the floodplain, while dam failure is isolated to areas downstream of the event. Table 2.1 lists the potential hazards addressed in this plan with relevant supporting data.

Table 2.1

Chapter II. Section	Updates to Section
I. Flood	Updated events, critical facilities to GMIS, tax information. Recalculated hazard frequency data. Added information from Hazus-MH analyses.
II. Dam Failure	Updated events, critical facilities to GMIS, tax information Recalculated hazard frequency data.
III. Drought	Updated events, critical facilities to GMIS, tax information Recalculated hazard frequency data.
IV. Wildfire	Updated events, critical facilities to GMIS, tax information Recalculated hazard frequency data. Added information from Hazus-MH analyses.
V. Tornado	Removed Tornado subsection from Severe Weather events section, created separate section for hazard, updated events, critical facilities to GMIS, tax information Recalculated hazard frequency data. Added information from Hazus-MH analyses.
VI. Tropical Storm	Removed Tropical Storm subsection from Severe Weather events section, created separate section for hazard, updated events, critical facilities to GMIS, tax information Recalculated hazard frequency data. Added information from Hazus-MH analyses.
VII. Severe Weather	Updated events, critical facilities to GMIS, tax information Recalculated hazard frequency data. Added information from Hazus-MH analyses.
VIII. Winter Storms	Updated events, critical facilities to GMIS, updated tax information. Recalculated hazard frequency data
IX. Earthquake	Updated events, 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 period of 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 areas and recharge areas are lost. This causes unnecessary flooding in previously dry areas and can damage buildings and other structures.

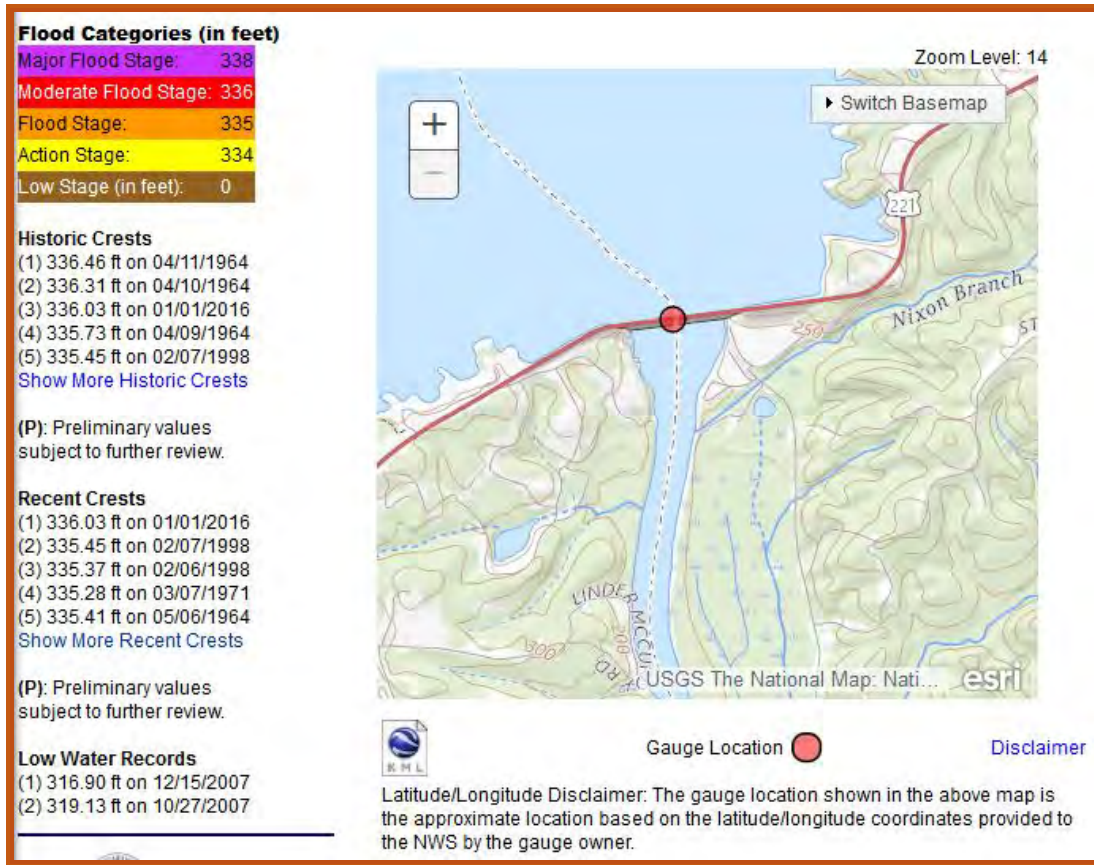
Lincoln County and the City of Lincolnton will continue to comply with NFIP requirements and intend to remain in compliance by enforcing flood plain ordinances that prohibit or severely limit development in floodplains. Table 2.2 provides information about each jurisdiction's participation level. They will continue enforcing the adopted Flood Management Ordinances adopted in 2010 and regulating development in known flood hazard areas.

Table 2.2

Community Name	Init FHBM Identified	Init. FIRM Identified	Curr. Eff. Map Date	Reg-Emer Date
Lincoln County	None	07/06/2010	04/17/2020(m)	07/06/2010
Lincolnton	None	07/06/2010	04/17/2020(m)	07/06/2010

Source: FEMA Community Status Book

- B. Hazard Profile:** Severe flooding within Lincoln County is a relatively infrequent event. The county has 27 rivers/streams and one reservoir. Countywide, slopes range from nearly level in the low-lying floodplain areas to around 20 percent along the side-slopes of some ridgelines. The low-lying areas in the county adjacent to the major streams are subject to periodic flooding that accompanies major storms. Elevations in the district range from 283 to 483 feet. The gauge at Lake Thurmond on the GA/SC border in Columbia County, directly adjacent to Lincoln County, provides data for Thurmond Lake. This provides the best available data. The gauge data is below, as well as a map of where the gauge is located.

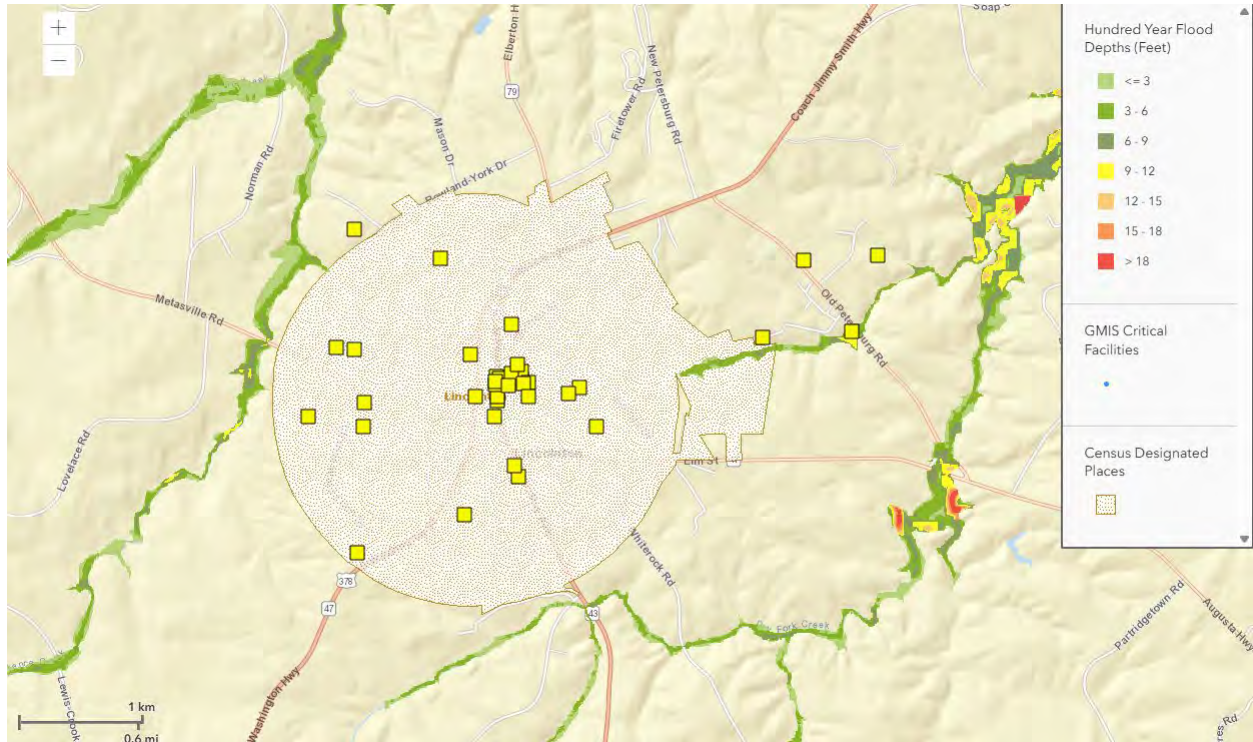


The committee examined historical data from the NCEI, USGS, SHELDUSTM, past newspaper articles and conducted interviews on the effects of past flooding events. In the last 75 years, seven flooding events have been recorded, and all occurred in the unincorporated areas of the County. These seven flood events resulted in flash flooding which washed out several roads and wooden bridges. Table 2.3 is a result of information gathered from interviews, newspaper articles, and the NCEI and SHELDUSTM databases.

Table 2.3

Date	Fatality	Inj	PrD	CrD	Event Narrative
8/17/1994	0	0	14,000	0.00	Persistent heavy rain resulted in gradual flooding. Some roads were flooded cut off by rising streams.
12/01/1996	0	0	0.00	0.00	Flood
06/03/2015	0	0	2,000	0.00	Flash Flood
06/03/2015	0	0	2,000	0.00	Flash Flood
06/30/2015	0	0	35,000	0.00	Flash Flood
02/06/2020	0	0	60,000	0.00	Flash Flood The following roads, Seed Tick Road was completely washed out and Goshen Church, Guillebeau and Wright Zellars Roads were partially washed out.
07/06/2020				0.00	Flash flood, 5 county roads and two state roads were washed out.

Source: The Lincoln Journal, EMA Director, NCEI and SHELDUS



City of Lincolnton Flood Map

Rain Event 2/06/2020



While severe flooding within the county is a very infrequent event, there is a potential for flooding. Flash flooding is the most prominent flooding event as riverbanks overflow due to rainfall. There are no NFIP mitigated properties, and no properties have encountered

repetitive flooding. There are no Initial Flood Hazard Base Maps for Lincoln County or the City of Lincolnton. FEMA flood maps, updated in 2010, show flood zones along known water ways.

Based on a 20-year hazard cycle the chance of an annual flood occurring is:

- 25 percent for all of Lincoln County.
- 25 percent for unincorporated areas of Lincoln County; and
- Less than one percent for Lincolnton (See Appendix A 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 and available parcel data. Based on FIRMs, tax digests, and FEMA Worksheet #3a, it was determined that all or a portion of 229 structures/properties valued at more than \$12.6 million and a population of 134 are in known flood prone areas within the County. Of these 229 structures/properties, two are 2 located in known flood prone areas in the City of Lincolnton. And valued at slightly more than \$119,000.

All 229 structures/properties have been identified by federal flood plain maps and/or parcel maps and not all structures/properties will experience damage from floods. Further studies, including professional surveys, would have to be conducted to determine exactly which structures are at consistent risk from flooding. The extent of each flood varies according to the amount of rainfall in each area. If a complete loss of the 229 structures/properties located within flood zones would result in approximately \$12.6 million in damages, assuming 100 percent loss, a 75 percent loss would represent approximately \$9.45 million, a 50 percent loss would represent approximately \$6.3 million, and a 25 percent loss would represent approximately \$ 3.15 million.

The GMIS has one critical facility with a hazard score of 3, The Petersburg Lift Station. Of the remaining 47 critical facilities, all have a hazard score of 0.

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value \$	Content Value \$	Occupancy	
					Day	Night
Lincoln County	0	31	66,740,059.00	6,101,388.00	5,919	4,500
Lincoln County	3	1	200,000	0	0	0
Lincolnton	0	16	12,256,280.00	339,066.00	100	100
TOTAL		48	79,196,339.00	6,440,454.00	6,019	4,600

For determination of assets exposed to risk this plan provides information from the Hazard Risk Analyses performed by the Carl Vinson Institute of Government at the University of Georgia using the FEMA Hazus-MH risk assessment tool. 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. The probabilistic risk assessment involves an analysis of a 1% annual chance riverine flood event (100-Year Flood) and a 1% annual chance coastal flood.

Buildings in Lincoln 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. All damage is to residential property in the unincorporated areas of the county. No properties within the city limit were affected. The analysis identified no essential critical facility subject to damage in the riverine 1% probability floodplain. Hazus-MH estimates 99 households might be displaced because of flooding. This number includes households evacuated within or very near to the inundated area. Displaced households represent 298 individuals, of which 49 may require short-term shelter. Table 2.4 provides a summary of the potential flood-related building damage by jurisdiction from a 1% flood.

Table 2.4 Lincoln County Riverine 1% Building Loss

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 Jurisdiction
Unincorporated					
Residential	4,622	9	\$490,792,796	\$156,342	0.03%
County Total					
	4,622	9	\$490,792,796	\$156,342	

Hazus-MH estimates the number 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.)

The analysis estimates that an approximate total of 4,971 tons of debris might be generated:

1) Finishes- 1,858 tons; 2) Structural – 1,296 tons; and 3) Foundations- 1,817 tons.

D. Land Use and Development Trends: The Lincoln County Joint Comprehensive Plan 2023 includes a character area map that presents future land use development for Lincoln County. The land use patterns are an analysis of the existing land uses located within unincorporated areas of the County. According to the character area map the greatest use of land is Agriculture and Forestry. Agriculture and Forestry is defined as rural land used for agriculture, farming, forestry, and low-density residential. Lakeside Residential Living is designated for residential, commercial, parks and lake tourism and recreation. Lake front property in Lincoln County extends 413 miles. There is a small Manufacturing Character Area that houses industry and growth of manufacturing and industry will continue to be isolated in this area. Any development that takes place in the flood-prone zone will increase

the vulnerability to property and life. The County is aware of the need to regulate development in flood-prone zones.

The Lincoln County Comprehensive Plan 2023 includes a character area map that presents future development for the City of Lincoln. According to the future land use map, most of the land is Suburban Residential which is traditional suburban and associated uses such as neighborhood stores and schools. The second largest use of land is Future Development. This land is largely undeveloped and suggested to accommodate conservation subdivision design and cluster development that incorporates open space. The City of Lincoln also has a Historic character area that contains landmarks, civic and cultural resources important to the history of the City of Lincoln and Lincoln County.

Lincoln County's growth and future development is fueled, predominantly, by the 413-mile waterfront on Clarks Hill Lake that encompasses the eastern and southern county lines. The Lakeshore border comprises Lincoln County's greatest attraction for recreational leisure and an economy that is built around complementary services, business, and industry that includes boat manufacturing, aquaponic use, recreational leisure, and a second home community.

The joint comprehensive plan states that water quantity and quality are identified as the most important natural resource in Lincoln County. Development regulations for impaired watersheds, groundwater recharge areas with high susceptibility to pollution, water supply watersheds, and along Lake Thurmond need to be continually updated. Land use maps can be found in Appendix B.

- E. Multi-Jurisdictional Concerns:** During a large-scale flood event, many portions of the County could potentially be impacted by flooding. However, the areas that are most prone to flooding have historically been those areas located within the 100-year floodplain. Since flooding has the potential to affect all the County, any mitigation steps taken related to flooding should be undertaken on a countywide basis to include the city.

Lincoln County and the City of Lincoln 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 Lincoln County public works. Any permit applications or zoning complaints are reviewed by public works and the community development department. 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, the County EMA and Tax assessor's office 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 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.

F. Hazard Summary: Severe flooding within Lincoln County is a relatively infrequent event. The county has 27 rivers/streams and one reservoir. There have been seven flooding events recorded in the last 75 years. These events resulted in roads washing out. The hazard frequency table calculates a 9.33 percent chance of an annual flooding event. Hazard frequency tables can be found in Appendix D. Severe flooding, although relatively rare in occurrence, has the potential to inflict significant damage in Lincoln 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.

All or a portion of 229 structures/properties valued at more than \$12.6 million and a population of 134 are in known flood prone areas within the unincorporated areas of the County. There are two parcels valued at slightly more than \$119,000 located in known flood prone areas in the City of Lincoln.

Based on Hazus-MH 3, there are 4,622 residential properties in the county, but only 9 would be damaged by a flood event. Hazus-MH estimates 99 households displacing 298 individuals

because of flooding. The committee identified specific mitigation goals, objectives and action items related to flooding, which can be found in Chapter III, Section I.

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 flooding 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: The National Inventory of Dams has four low-hazard dams in Lincoln County. All are in the unincorporated areas of the County. *(It is noted that five dams are listed in the NID but Water Oak Lake Dam is located in Oconee County).* A complete table of the dams can be found in Appendix A. Based on interviews and the best available data there have been no dam failure events within the last 75 years. Based on a 20-year hazard cycle the estimated annual probability of a future event is less than one percent. Since there is no history of dam failure or dam study, there isn't enough information to describe the extent of a dam failure currently. *(See Appendix A and Appendix D).*

C. Assets Exposed to Hazard and Estimate of Potential Losses: The number of dams posing potential loss of life hazards to Lincoln County residents and the number of residents living downstream from these potentially hazardous dams is unknown at this time. Based on the best available data, the residents of Lincoln County do not appear to be at risk due to dam failure. 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 Lincoln County.

The potential losses due to dam failure are unknown and cannot be estimated at this time. The GMIS report has 48 critical facilities with a replacement value of more than \$67 million. The County has a population of 7,726 and 17,157 structures/properties valued at more than \$1.5 billion at risk of potential loss. *(See Appendix A and Appendix D)*

- D. Land Use and Development Trends:** The focus of Lincoln County's growth is on the natural resources; the lake area. The area adjacent to the Army Corps of Engineers property, is being developed into residential subdivisions. This future development will bring an increase in population and efforts must be made to ensure that new homes are not built downstream where a dam break may occur. 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. Land use tables 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 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. Lincoln County and the City of Lincolnton need to maintain adequate communication equipment. The County and its emergency personnel are dependent on the ability to communicate during times before, during, and after a disaster. Lincoln County and the City of Lincolnton are aware of the need to maintain communication capabilities that will serve their County.

- 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. There have been no known dam failures events in the last 70 years. 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 16,652 structures/properties in the county valued slightly less than \$1.2 billion with a population of 7,799. The committee identified specific mitigation goals, objectives and action items related to dam failure, which can be found in Chapter III, Section III.

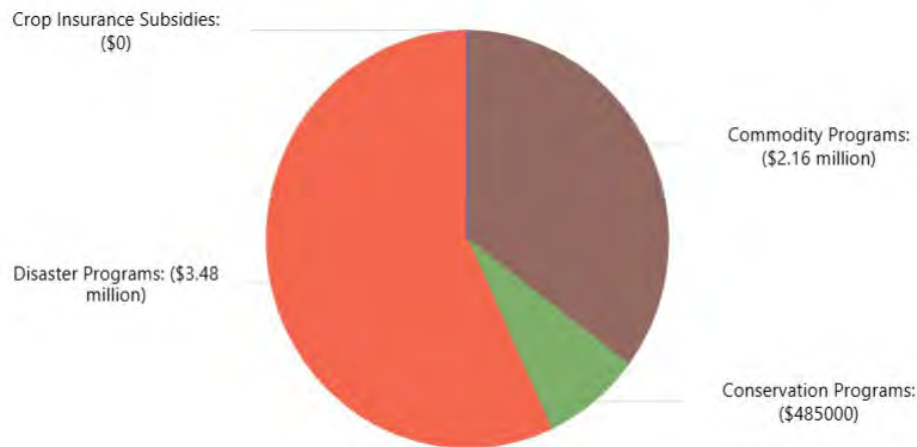
SECTION III. DROUGHT

- A. Hazard Identification:** The committee reviewed historical data from the Palmer Drought Index, NCEI, DNR, and USDA in researching drought conditions. Drought conditions are identified by a prolonged period of moisture deficiency. Climatologists and hydrologists use five indicators of drought: rainfall, soil moisture, stream flows, lake levels and groundwater levels. Drought conditions affect the cultivation of crops as well as water availability and water quality. Drought is also a key factor in wildfire development. Wildfire will be addressed in a separate HRV.
- B. Hazard Profile:** Drought is not spatially defined and has the potential to affect the entire planning area equally. Lincoln County encompasses an area of roughly 257 square miles, of which 211.1 is land and 45.9 is water. The county is comprised of 164,480 acres- 29,376 (17.9) acres are water, 18,292 (11.1 percent) is dedicated to agricultural and 82,009 acres (49.8 percent) is dedicated to forestry. According to the USDA 2022 Census of Agriculture there are 6,258 heads of livestock in the county.

In the last 25 years, there have been 530 reported drought events. ***Historical data is only for the county.*** Agricultural losses due to drought are the primary losses. No critical facilities have sustained any damage or functional downtime due to dry weather conditions.

According to the EWG Farm Subsidies Database, from 1995-2024, Lincoln County received over \$4 million in farm subsidy payments of which \$3.48 million was for disaster assistance.

Lincoln County, Georgia Farm Subsidy Breakdown, 1995-2024



Source: <https://farm.ewg.org>

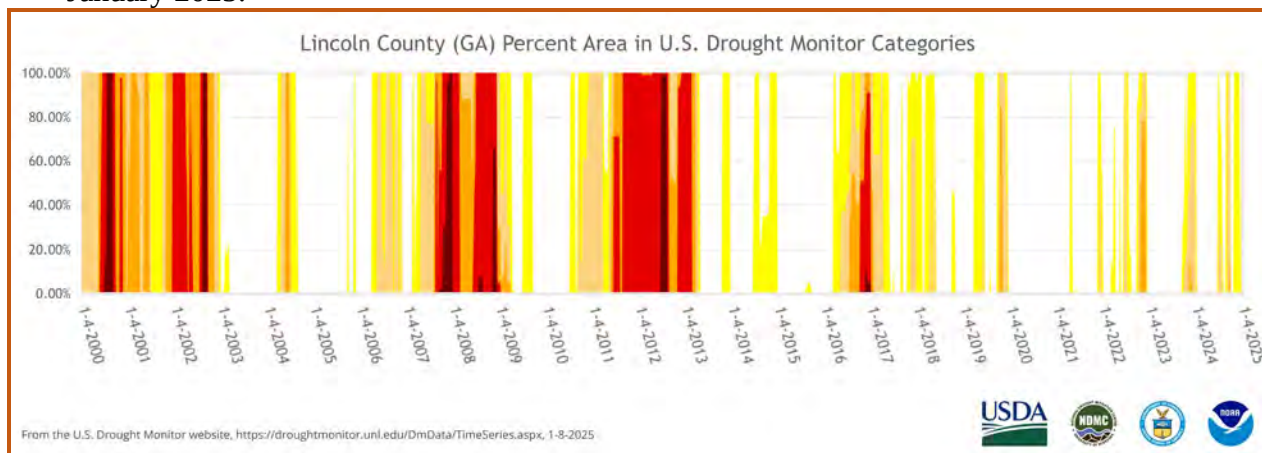
A severe, prolonged drought would mainly affect the 60.9 percent of the county that makes up the timber and agriculture business. This could result in loss of crops, livestock and create conditions for a major wildfire event. This would also have an impact on Lincoln and Lincoln County's water systems as water restrictions would be enforced. Based on a 20-year hazard cycle history there is a 105 percent chance of an annual drought event for the county. (See Appendix A and Appendix D.)

The Palmer Index is most effective in determining long-term drought, a matter of several months, and is not as good with short-term forecasts (a matter of weeks). The Palmer Index uses a zero abnormally dry, and drought is shown in terms of minus numbers; for example, minus two is severe drought, minus three is extreme drought, and minus four is exceptional drought. NCEI data for surrounding counties and a review of The Palmer Index reveals there have been 33 drought events. One of the longest running droughts in recent history began in January 2019 and ended in April 2021. The County was in a moderate drought ran October 2019 to December 2019.

Data from <https://droughtmonitor.unl.edu/Data/DataDownload/ComprehensiveStatistics.aspx> reveals that from January 2000 to June 2025 the county experienced the following drought conditions:

- 770 weeks where all or a portion of the county experienced level D0 - Abnormally Dry;
- 530 weeks where all or a portion of the county experienced level D1 - Moderate Drought;
- 335 weeks where all or a portion of the county experienced level D2 - Severe Drought;
- 204 weeks where all or a portion of the county experienced level D3 - Extreme Drought;
- 54 weeks where all or a portion of the county experienced level D4 - Exceptional Drought. (US Drought Monitor Tables can be found in Appendix A)

The drought monitor graph below demonstrates the drought extent from January 2000 to January 2025.



Historical data is only for the county. A severe, prolonged drought would mainly affect the 60.9 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 Lincolnton and the County's water system, as water restrictions would be enforced. Based on a 20-year hazard cycle history there is a 132 percent chance of an annual drought event for the county as well as the city (*See Appendix A 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 because of dry weather. The greatest threat to assets in the county is to forestry and agricultural properties and livestock. No damage to critical facilities is anticipated because of drought conditions. Crop damage cannot be accurately quantified due to several unknown variables: duration of the drought, temperatures during the drought, severity of the drought, different crops require different amounts of rainfall, and different growing seasons. Based on FEMA Worksheet #3a the potential loss in agricultural and forestry properties for each jurisdiction is:

- Lincolnton has 40 agricultural/forestry structures/properties valued at approximately \$4.4 million with an estimated population of 7.
- Unincorporated Lincoln County has 2,620 agricultural/forestry structures/properties valued at approximately \$278 million with an estimated population of 143.

There are a total of 2,660 agricultural/forestry properties in Lincoln County valued at approximately \$282 million with a population of 180 that are at the greatest risk due to a drought event (*See Appendix A and Appendix D.*)

D. Land Use and Development Trends: Lincoln County currently has no land use or development trends related to drought conditions. When drought conditions do occur, the City follows the restrictions set forth by the Georgia DNR Drought Management Plan and the Statewide Outdoor Water Use Schedule. These guidelines are enforced by both water departments.

The Georgia Water Stewardship Act went into effect statewide on June 2, 2010. It allows daily outdoor watering for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants only between the hours of 4 p.m. and 10 a.m. by anyone whose water is supplied by a water system permitted by the Environmental Protection Division.

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

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

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

Odd-numbered addresses can water on Tuesdays, Thursdays and Sundays.

Even numbered and unnumbered addresses are allowed to water on Mondays, Wednesdays and Saturdays.

The focus of Lincoln County's growth is on the natural resources, the lake area. The area adjacent to the Army Corps of Engineers property, is being developed into residential subdivisions. Agricultural and forestry land located in this area will eventually decrease, and residential use will increase. This will decrease the loss to agriculture and forestry land due to drought. The increase in residential will put a greater strain on the water systems of the city and county. Land use tables are in Appendix B.

- E. **Multi-Jurisdictional Concerns:** Agricultural losses associated with drought are more likely to occur in the rural, less concentrated areas of the county. Although Lincolnton is 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. Drought may increase the likelihood of wildfires and flooding. Water shortages can impede firefighting efforts at all levels. 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 Lincoln 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 there is a 132 percent chance of an annual drought event in Lincoln County. In addition to the increased threat of wildfires, drought can affect private wells, municipal and industrial water supplies, stream-water quality, water recreation facilities, hydropower generation, as well as agricultural and forest resources.

In summary, for Lincoln County as a whole, there are a total of 2,660 agricultural/forestry properties valued at approximately \$282 million and include 6,258 heads of livestock and an estimated population of 180 which have the greatest potential to be damaged by drought. There is a population of 7,726 and approximately 17,157 structures/properties in the county with a value of \$1.5 billion which could be affected because of drought conditions. Drought mitigation goals and objectives are in Chapter III, Section III.

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 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:** Lincoln County encompasses an area of roughly 257 square miles, of which 211.1 is land and 45.9 is water. The county is comprised of 164,480 acres- 29,376 (17.9) acres are water, 18,292 (11.1 percent) is dedicated to agricultural and 82,009 acres (49.8 percent) is 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 Lincoln County. The committee reviewed historical data from the GFC, which is not found in the NCEI database, to research wildfire events. The GFC provides wildfire data on man-made and natural wildfire occurrences for the county as a whole and not for individual jurisdictions.

According to Georgia Forestry data, from 1957 to 2025, there have been 1,275 fire events burning a total of 5,001 acres. Based on a 20-year hazard cycle there is a 1,875 percent chance of an annual event. The drier the condition the more susceptible the county is to wildfire. The Fire Intensity Map with Scale can be found in Appendix A.

Data from the Southern Wildfire Risk Assessment Summary Report summarizes wildfire related information for Lincoln 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 wildfire. 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.

Functional Wildland Urban Interface divides the land around structures into zones that describe the wildfire risk migration activities appropriate for each zone. In the City of Lincolnton and estimated 314 (46%) of homes are in primary exposure areas, 376 homes (54%) are in secondary exposure areas, and 0 homes are in low to no exposure areas.

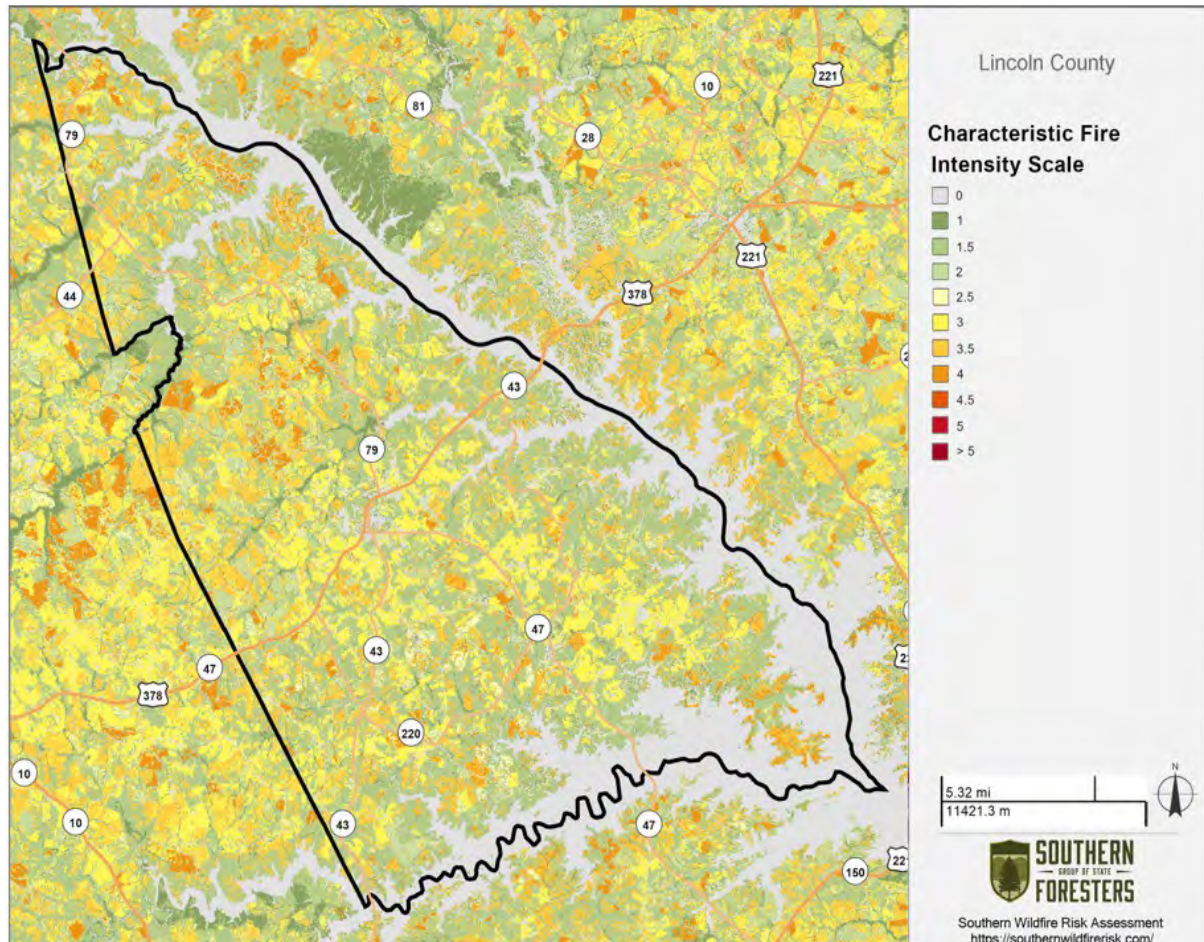
The Primary Exposure zone highlights where structures are within 75m of burnable wildland fuels and vegetation. Reducing fire intensity and ember production in this zone would reduce the exposure of nearby structures to heat and embers. Structures in this zone also require hardening efforts (such as ignition-resistant materials and design) to resist ignition.

The Secondary Exposure zone represents structures on nonburnable land cover within 1500 m of burnable fuels and vegetation. Structures in this zone could be impacted by lofted embers or home-to-home spread even though they are not immediately located with burnable wildland fuel/vegetation types. Structures in this zone would benefit from hardening to resist ignition from embers and nearby structures, but defensible space is usually not required because the area is heavily developed.

Low to No Exposure - The Low to No Exposure zone includes nonburnable land (and often managed or maintained landscapes) where structures are beyond 1500m from a large (500 ha) contiguous blocks of burnable wildland fuels and vegetation. Flames - even from home-to-home spread - and embers are unlikely to reach this zone, though smoke and evacuations could still affect it.

The map below shows the functional wildland urban interface map for the City of Lincolnton.





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 where forestry and woodland are prevalent. 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. 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 Lincoln County, as well as the value of these structures/properties and their population. Table 2.7 shows assets by jurisdiction that could potentially be exposed to wildfire hazard.

Table 2.7

Jurisdiction	Number of Structure/Properties	Value \$	Population
Lincoln County (Unincorporated)	15,215	1,349,646,614	5,850
Lincolnton	1,942	153,495,731	1,876
TOTAL FOR COUNTY	17,157	1,503,142,344	7,726

Source: Georgia Department of Revenue Lincoln County

Table 2.8 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.

Table 2.8

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value \$	Content Value \$	Occupancy	
					Day	Night
Lincoln County	4	2	730,850	0	12	0
Lincoln County	3	21	41,639,111	3,381,942	1,055	54
Lincoln County	2	5	926,000	1,440,000	0	0
Lincoln County	1	1	200,000	0	0	0
Lincoln County	0	3	29,277,680	1,279,446	300	0
Lincolnton	3	13	4,652,742	123,309	12	1
Lincolnton	1	1	4,127,094	105,936	4	1
Lincolnton	0	2	3,476,444	109,821	2	0
TOTAL		48	85,029,921	6,440,454	1,385	56

The GMIS has two critical facilities with a hazard score of four (high), 34 with a hazards score of three (moderate), five with a hazard score of two (low) and two with a hazard score of one (very low probability). The remaining five critical facilities have a hazard score of zero. The 48 critical facilities with a wildfire hazard score greater than zero have an estimated potential loss of more than \$51 million. The loss for all critical facilities is \$85,029,921. According to FEMA Worksheet #3a there are 17,157 structures/properties with a population of 7,726 with a value of slightly less than \$1.5 billion worth of assets countywide. If a wildfire started, it is not likely that all these structures/properties would be affected (*See Appendix A and Appendix D*).

- D. Land Use and Development Trends:** The focus of Lincoln County's growth is on the natural resources; the lake area. The area adjacent to the Army Corps of Engineers property, is being developed into residential subdivisions. Lincoln County currently has no land use or development trends related to wildfire. Land use codes do provide 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 Lincolnton-Lincoln 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:** Lincoln County is 60% timber, forest or agricultural land. Wildfire does have the potential to spread to urban areas thus affecting the entire county. As a result, any mitigation taken related to wildfire should be undertaken on a countywide basis and include the incorporated jurisdiction.
- F. Hazard Summary:** Lincoln County encompasses an area of roughly 257 square miles, of which 211.1 is land and 45.9 is water. The county is comprised of 164,480 acres- 29,376

(17.9) acres are water, 18,292 (11.1 percent) is dedicated to agricultural and 82,009 acres (49.8 percent) is 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. According to Georgia Forestry data, from 1957 to 2025, there have been 1,245 fire events burning a total of 5,001 acres. Based on a 20-year hazard cycle there is a 1,875 percent chance of an annual event. The drier the condition the more susceptible the county is to wildfire.

The GMIS has two critical facilities with a hazard score of four (high), 34 with a hazards score of three (moderate), five with a hazard score of two (low) and two with a hazard score of one (very low probability). The remaining five critical facilities have a hazard score of zero. The 48 critical facilities with a wildfire hazard score greater than zero have an estimated potential loss of more than \$51 million. The loss for all critical facilities is \$85,029,921. According to FEMA Worksheet #3a there are 17,157 structures/properties with a population of 7,726 with a value of slightly less than \$1.5 billion worth of assets countywide. Mitigation Goals and Objectives concerning wildfires are in Chapter III, Section III.

SECTION V. TORNADO

A. Hazard Identification: The committee reviewed historical data from the NCEI, SHELDUSTM, newspapers and citizen interviews in researching the past effects of tornados in Lincoln County.

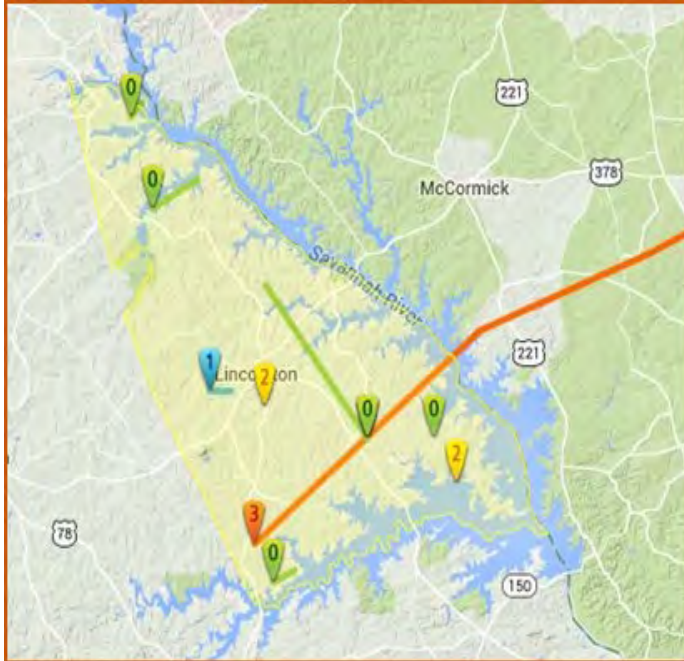
A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm or the result of a hurricane and is produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. Tornados are among the most unpredictable and destructive 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.

Table 2.9

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 10 reported tornados in the planning area. None has occurred since the last update. All occurred in the unincorporated areas of the county. The highest magnitude reported was an F3 with a path 5 miles long and 400 yards wide. Reported property and crop damages for all 10 events totaled \$812,000 with no injuries or fatalities reported. Tornados tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. The map below shows the path of the tornados.



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

Using a 20-year hazard cycle, an annual chance for a tornado event at 13% change per year for Lincoln County and the City of Lincolnton.

Table 2.10 was produced from interviews, *The Lincoln Journal*, the Georgia Tornado History Project and the NCEI and SHELATUS™ databases. The table shows the event, severity and estimated cost of damage reported. (See Appendix A and Appendix D).

Table 2.10

Date	Location	MAG	PrD	CrD	Event Narrative
11/22/1992		F3	50,000	0.00	A tornado had followed a path with a width 400 yards and almost 5 miles long.
05/07/1998		F1	350,000	0.00	A tornado destroyed two chicken sheds, tore a roof off a home, and turned a home 90 degrees and moved it off its foundation. Width 100 yards and a length of ½ mile.
05/07/1998		F2	300,000	0.00	A tornado hit the Pineywoods subdivision destroying 12 homes and causing major damage to 15 homes and minor damage to 8 homes. Width 200 yards and a length of 1 mile.
05/07/1998		F1	50,000	0.00	A tornado did major damage and minor damage to several homes and mobile homes. Width 100 yards and a length of 1 mile.
05/07/1998		F2	50,000	0.00	A tornado destroyed 7 homes and did major and minor damage to about a dozen others in the Indian Cove subdivision. Width 200 yards and a length of ½ mile.

Date	Location	MAG	PrD	CrD	Event Narrative
11/11/2002	Goshen	F0	0.00	0.00	Reports that a F0 tornado damaged trees in the Chennault Width 50 yards and a length of 1 mile.
05/06/2003	New Hope	F0	0.00	0.00	A F0 tornado touched down in the New Hope portion of the County. No damage reported. Width 50 yards and a length of 3 mile.
01/13/2005	Double Branches	F0	0.00	0.00	A F0 tornado touched down in the Double Branches portion of the County. Width 30 yards and a length of 1/10 of a mile.
3/15/2008	Gill	EF0	0.00	0.00	A F0 touched down and took down many trees along its path. Witnesses saw the tornado cross the river into McCormick county SC. Width 100 yards and a length of 1.14 mile.
4/28/2013	Clay Hill	EF0	12,000	0.00	Trees down along and near Greaham Park Road. Width 40 yards and a length of 1.24 mile.

C. 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 of 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
Lincoln County (Unincorporated)	15,215	1,349,646,614	5,850
Lincolnton	1,942	153,495,731	1,876
TOTAL FOR COUNTY	17,157	1,503,142,344	7,726

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 many mobile homes, the damage can be expected to be more severe.

- F. Hazard Summary:** Tornadoes do not touch down as frequently; however, the unpredictability and the potential for excessive damage caused by tornadoes makes it imperative that mitigation measures identified in this plan receive full consideration. Based on 75 years of historical data, there have been 10 reported tornadoes in the planning area. The highest magnitude reported was an F3. Reported property and crop damage for all events totaled more than \$812,000. Tornadoes tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. There is a 13 percent annual chance of a tornado event for the County as a whole. Specific mitigation actions for tornado events are identified in Chapter III, Section III.

SECTION VI. TROPICAL STORMS

- A. Hazard Identification:** 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 an area of low pressure over warm oceanic water, then develop into tropical cyclones. A tropical cyclone life span can last from a few hours to close to three weeks. Most tropical cyclones last approximately five to ten days. If the winds are under or up to 39 mph, it is a tropical depression. If winds speeds are between 39 to 73 mph, it is considered a tropical storm. Any storm with over 74 mph wind speed is called a hurricane. As a rule, hurricanes occur in the western Atlantic Ocean when warm, humid conditions prevail. Hurricanes are usually accompanied by excessive rain, thunder and lightning. When hurricanes make landfall, they are 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. Lincoln County is not likely to experience hurricanes or storm surges.

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:** Only two tropical storms have been reported by the NCEI for Lincoln County. There were two reported tropical storm events noted in SHELDUSTM. These two events had property and crop damages of approximately \$1,563 with no injuries. Due to the lack of data, the committee researched The Lincoln Journal and data from NCEI and SHELDUSTM for surrounding counties. The combination of all research shows there were 16 tropical storm events in the last 70 years. These storms produced winds from 35-45 mph with gusts up to 55 mph. Damages because of the storms were due to power outages, downed trees and flash flooding. The tropical storms affected the entire planning area. Data for each jurisdiction is not available. In September 2024, Hurricane Helene brought more than five inches of rain and wind gusts of nearly 50 mph, leading to numerous reports of downed trees, power outages, and some damage to homes and businesses. Property damage was reported in

Lincoln County at \$7.9 Million. Based on the hazard frequency table there is a 21.43 percent chance of an annual tropical storm event for the county. (See Appendix D)

Table 2.11

Details	Type	Date	PrD	CrD
A result of Hurricane Cleo	Tropical Storm	8/30/1964	1136	113
A result of Hurricane Agnes	Tropical Storm	6/20/1972	0.0	314
Result of Tropical Storm Hannah	Tropical Storm	09/14/2002	0.0	0.0
Result of Tropical Depression Bill	Tropical Storm	07/01/2003	0.0	0.0
Result of Hurricane Francis	Tropical Storm	09/06/2004	0.0	0.0
Result of Hurricane Ivan	Tropical Storm	09/16/2004	0.0	0.0
Result of Hurricane Jeanne	Tropical Storm	09/26/2004	0.0	0.0
Result of Tropical Storm Arlene	Tropical Storm	06/12/2005	0.0	0.0
Result of Hurricane Dennis	Hurricane/typhoon	07/10/2005	0.0	0.0
Result of Hurricane Katrina	Hurricane/typhoon	08/29/2005	0.0	0.0
Result of Tropical Storm Tammy	Tropical Storm	10/05/2005	0.0	0.0
Result of Tropical Storm Fay	Tropical Storm	08/21/2008	0.0	0.0
Result of Hurricane Ida	Tropical Storm	1/10/2009	0.0	0.0
Result of Tropical Storm Lee	Tropical Storm	09/04/2011	0.0	0.0
Result of Tropical Storm Michael	Tropical Storm	10/10/2018	0.0	0.0
Result of Hurricane Helene	Hurricane	9/27/2024		

Source: NCEI, The Lincoln Journal and SHELATUS

- 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 one, where wind speed is between 74 to 95 mph. Table 2.12 provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Jurisdiction	Number of Structure/Properties	Value	Population
Lincoln County (Unincorporated)	15,215	1,349,646,614	5,850
Lincolnton	1,942	153,495,731	1,876
TOTAL FOR COUNTY	17,157	1,503,142,344	7,726

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. Lincoln County is located in FEMA wind zone I, which is associated with up to 95-mph wind speed. 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:** The whole County has the same design wind speed of up to 95 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 70 years of historical data, there have been fifteen tropical storms reported with property and crop damage. The county has estimated damage from Hurricane Helene to be over \$7.9 Million. To summarize, there are approximately 17,157 structures/properties in the county totaling slightly more than \$1.5 billion with a population of 7,726. A breakdown of information for individual jurisdictions can be found in Appendix A and Appendix D. Specific mitigation actions for tropical storms are identified in Chapter III, Section III.

SECTION VII. SEVERE WEATHER, (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. The month of February marks the beginning of the severe weather season in the South, which can last until the month of August. Five types of severe weather were identified by the mitigation team: (1) thunderstorm winds, (2) lightning and (3) hail.

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 more than 100 MPH. 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 MPH. 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 Lincoln County is vulnerable to the threats of severe weather.

Thunderstorms are much more prevalent and during the spring and summer months there are numerous storms that often carry strong winds. There have been 102 events recorded in the last 58 years with highest winds reported at 75 knots with more than \$75,000 in property and crop damages. Table 2.12 breaks down the thunderstorm events by jurisdiction. A complete table of thunderstorm wind events can be found in Appendix A.

Table 2.12

Location	Total # of events per jurisdiction
Lincoln County(Unincorporated)	55
Lincolnton	47
TOTAL FOR COUNTY	102

Source: NCEI and SHEL DUS

Using a 20-year hazard cycle, the frequency table calculates an annual chance for a thunderstorm event producing high winds is 176 percent for Lincoln County and Lincolnton. Hazard frequency tables for individual jurisdictions are in Appendix D.

During the spring and summer months the county experiences numerous storms that can often produce lightning. There have been 1 reported lightning event in the past 70 years with NCOAA, slightly more than \$62,768 in property and crop damage with one injury. There have been 40 lightning strikes recorded in the same time frame that resulted in wildfires. Wildfire due to lightning has burned nearly 400 acres in Lincoln County. *Based* on a 20-year hazard cycle there is a 58 percent chance of a lightning strike in Lincoln County.

In the last 70 years there have been 41 hail events reported to date with slightly more than \$12,200 in property and crop damage with no injuries reported. These events produced hailstones ranging from .75 to 2.00 inches. Using a 20-year hazard cycle, frequency tables calculate an annual change for hail at 58 percent. A complete list of all hazards is in Appendix A and hazard frequency tables the county is in Appendix D.

- 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 thunderstorm winds, lightning and hail events. Based on GMIS maps the entire county has a design wind speed of one, where wind speed is between 74 to 95 mph. Table 2.14 provides data from FEMA Worksheet #3a that estimates the potential loss for each jurisdiction.

Table 2.13

Location	Number of Structure/Properties	Value	Population
Lincoln County (Unincorporated)	15,215	1,349,646,614	5,850
Lincolnton	1,942	153,495,731	1,876
TOTAL FOR COUNTY	17,157	1,503,142,344	7,726

Of the 48 critical facilities, 28 have a wind hazard score of one placing the critical facilities with wind speeds of less than 90 and the remaining 20 have a hazard score of zero. GMIS critical facility reports for wind and FEMA Worksheet #3a are located in Appendix A for each individual jurisdiction and the county as a whole. Table 2.15 shows the number of critical facilities by jurisdictions, hazard score, replacement value, content value, and occupancy.

Table 2.14

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value \$	Content Value \$	Occupancy	
					Day	Night
Lincoln County	1	32	66,940,059	6,101,388	721	54
Lincolnton	1	16	12,256,280	339,066	18	2
TOTAL		8	79,196,339	6,440,454	1,385	56

- D. Land Use & Development Trends:** Lincoln County is located in FEMA wind zone III, which is associated with 200-mph wind speeds. Currently, the county has no land use or development trends related to thunderstorm winds, lightning, or hail events. Information on land use can be found in Appendix B.
- E. Multi-Jurisdictional Concerns** – All of Lincoln 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 ZONE			
		I	II	III	IV
NUMBER OF TORNADOES PER 1,000 SQUARE MILES	<1	LOW RISK	LOW RISK ★	LOW RISK ★	MODERATE RISK
	1 - 5	LOW RISK	MODERATE RISK ★	HIGH RISK	HIGH RISK
	6 - 10	LOW RISK	MODERATE RISK ★	HIGH RISK	HIGH RISK
	11 - 15	HIGH RISK	HIGH RISK	HIGH RISK	HIGH RISK
	>15	HIGH RISK	HIGH RISK	HIGH RISK	HIGH RISK

LOW RISK	MODERATE RISK	HIGH RISK
Need for high-wind shelter is a matter of homeowner preference	Shelter should be considered for protection from high winds	Shelter is preferred method of protection from high winds

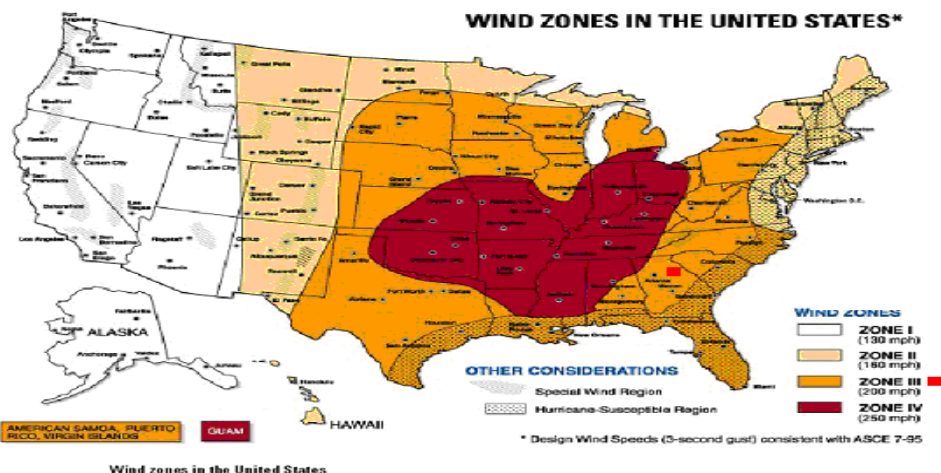
★ Shelter is preferred method of protection from high winds if house is in hurricane-susceptible region

The entire county has the potential to be affected by thunderstorm winds, lightning and hail. As a result, any mitigation steps taken related to these severe weather events should be considered on a county-wide basis to include Lincolnton.

- F. Hazard Summary:** The entire county has the potential to be affected by severe weather. Table 2.16 provides a summary of all severe weather events.

Table 2.15

Weather Event	#	Fatalities	Injuries	Property/Crop Damage
Thunderstorm Winds	102	0	1	\$75,000



Lightning	41	0	1	\$62,768
Hail	41	0	0	\$12,200

Table 2.16

The Beaufort scale is a standardized system for estimating wind strength based on its effects on the environment, particularly at sea. The scale ranges from 0 to 12, with additional conditions for extreme conditions, and it describes the observable effects of wind on the sea and land.

Beaufort number	Wind type	Wind speed	Wave height	Land conditions
0	Calm	0 m/s	0 m	Calm. Smoke rises vertically
1	Light air	0–2 m/s	0 m	Wind motion visible in smoke
2	Light breeze	2–3 m/s	1 m	Wind felt on exposed skin. Leaves rustle
3	Gentle breeze	3–5 m/s	1 m	Leaves and smaller twigs in constant motion
4	Moderate breeze	5–8 m/s	1–2 m	Dust and loose paper is raised. Small branches move
5	Fresh breeze	8–11 m/s	2–3 m	Smaller trees sway
6	Strong breeze	11–14 m/s	3–4 m	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult
7	Near gale	14–17 m/s	4–5 m	Whole trees in motion. Some difficulty when walking into the wind
8	Gale, fresh gale	17–21 m/s	5–7 m	Twigs broken from trees. Cars veer on road
9	Severe gale	21–24 m/s	7–10 m	Light structure damage
10	Storm whole gale	24–28 m/s	9–12 m	Trees uprooted. Considerable structural damage
11	Violent storm	28–33 m/s	12–16 m	Widespread structural damage
12	Hurricane force	≥ 33 m/s	≥ 14 m	Considerable and widespread structural damage

To summarize, there are approximately 17,157 structures/properties in the county totaling slightly less than \$1.5 billion with a population of 7,726. A breakdown of information for individual jurisdictions can be found in Appendix A and Appendix D. Specific mitigation actions for thunderstorm winds, lightning and hail events are identified in Chapter III, Section V.

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. There have been 11 winter storm events recorded in the county over the last 75 years with an estimated property damage of \$216,418. There has been winter event since 2022.

The snowstorm of 1973 covered Lincoln County with nine inches of snow. The most recent ice storm on February 11-13, 2014, produced 1/4 to 1/2 inches of ice and up to four inches of snow and sleet across Lincoln County taking down numerous trees and powerlines. Power outages were mainly confined to the lower half of the county. Approximately 300 homes were without power. The weight of the ice brought down trees, limbs and other vegetative debris which blocked roads and rights of way creating hazardous conditions.

The timber industry was severely affected by the storm. Lincoln was one of the seven counties hit by the storm that experienced light to moderate timber damage according to the GFC. Light to moderate damage is where only branches and limbs broken from the tree, with minor damage to the overall stand and trees bent less than 45 degrees. No salvage operation will be necessary, and the stand should recover with no additional management requirements, though long-term yields will likely be impacted.

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 44 percent chance of an annual winter storm event for the entire county.

C. Assets Exposed to Hazard and Estimate of Potential Losses: In evaluating assets that may potentially be impacted by the effects of winter storms, the committee determined that all critical facilities, as well as all public, private and commercial property, are susceptible. Table 2.17 shows assets by jurisdiction at potential risk of damage from a winter storm event.

Table 2.17

Jurisdiction	Number of Structure/Properties	Value	Population
Lincoln County (Unincorporated)	15,215	1,349,646,614	5,850
Lincolnton	1,942	153,495,731	1,876
TOTAL FOR COUNTY	17,157	1,503,142,344	7,726

Source: Lincoln County Tax Assessor

The GMIS does not provide a report for winter storm damage but there is slightly less than \$1.2 billion worth of assets with potential loss to winter storm hazards countywide. Table 2.18 shows the number of critical facilities by jurisdiction, replacement value and content value (See Appendix A and Appendix D).

Table 2.18

Jurisdiction	Number of Structure/Properties	Value	Population
Lincoln County (Unincorporated)	15,215	1,349,646,614	5,850
Lincolnton	1,942	153,495,731	1,876
TOTAL FOR COUNTY	17,157	1,503,142,344	7,726

- D. Land Use & Development Trends:** The land use patterns have changed little since the last comprehensive plan update, but the focus of land use for the future is changing greatly. The focus of Lincoln County's growth is on the natural resources, the lake area. The area adjacent to the Army Corps of Engineers property, is being developed into residential subdivisions. 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 can be found in Appendix B.
- E. Multi-Jurisdictional Concerns:** Lincoln County currently has no land use or development trends related to winter storms. The entire 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 to include the City of Lincolnton.
- F. Hazard Summary:** There have been 11 winter storm events recorded in the last 75 years with an estimated property damage of \$216,418. There is a 44 percent chance of an annual winter storm event. Winter storms can be more accurately predicted than most other natural hazards, making it possible to give advance warning to communities. The National Weather Service issues winter storm warnings and advisories as these storms make their way south. Given the infrequency of these types of storms, southern communities are still not properly equipped to sustain the damage and destruction caused by severe winter storms. To summarize, there are approximately 17,157 structures/properties in the county totaling slightly less than \$1.5 billion with a population of 7,726. The committee recognized the dangers posed by winter storms and identified specific mitigation actions in Chapter III, Section VI.

SECTION IX. 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. Table 2.19 describes the Abbreviated Modified Mercalli Intensity Scale and Table 2.20 explains intensities that are typically observed at locations near the epicenter of an earthquake event.

Table 2.19

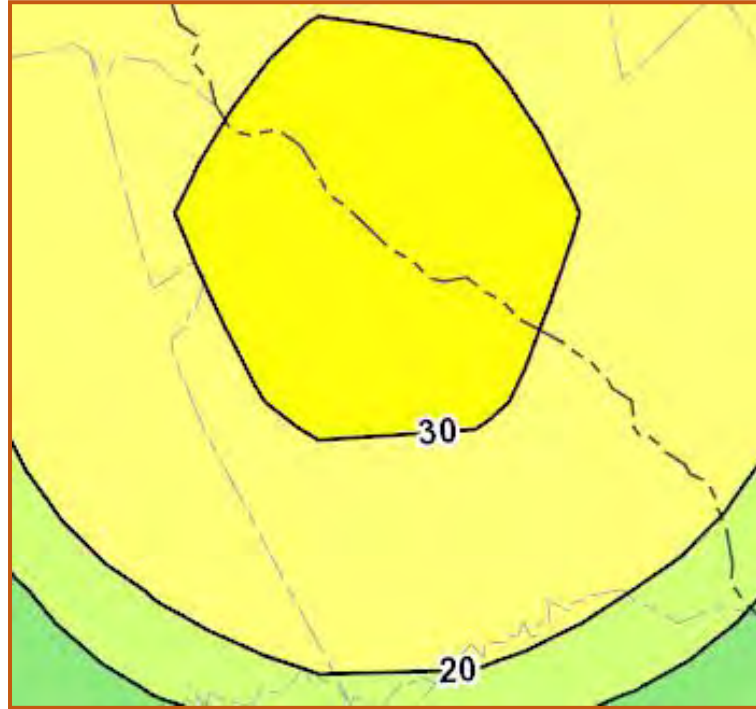
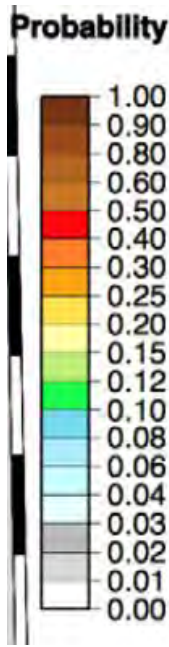
Magnitude	Maximum Modified Mercalli Intensity
1.0 - 3.0	I
3.0 - 3.9	II - III
4.0 - 4.9	IV - V
5.0 - 5.9	VI - VII
6.0 - 6.9	VII - IX
7.0 and higher	VIII or higher

Table 2.20

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.

Within Lincoln County, and the southeast region in general, there is concern over the threat of earthquakes. This concern is due to the Woodstock Fault near Charleston, SC and the new Madrid Fault located near Mew Madrid, MO. Georgia and specifically, Lincoln County have felt earthquakes originating from both of these faults. The fact that earthquakes hit Lincoln County infrequently results in other problems, such as lack of equipment and supplies for urban search and rescue in the event that a major earthquake strikes the County.

Based on U.S. Geological Survey Two-percent probability of exceedance in 50 years map of peak ground acceleration is between 20 and 30 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 Lincoln County. However, they do help demonstrate that the threat of earthquakes cannot be overlooked even in a relatively inactive geographic area such as Lincoln County.



PGA with 2% 50 year PE

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. There have been 15 recorded earthquakes. While earthquake events are a rare occurrence, the USGS states that the probability of an earthquake of Magnitude 5.0 or more occurring within Lincoln County over the next 25 years is between 1% and 4% (see map above). *All data covers the county as a whole no data is available by jurisdiction.* GMIS has 100 percent of the county with a seismic hazard score of three.

Table 2.21

SEISMIC HAZARD SCORES GMIS			
Score	Original Value	Description	The seismic hazard layer is based on the USGS Probabilistic Seismic Hazard Map, showing the percentage of gravity that the area has a 2 percent probability of exceedance in 50 years. The score classification reflects that used by the IRC Seismic Design Categories.
4	D1	50 - 83% gravity	
3	C	33 - 50% gravity	
2	B	17 - 33% gravity	
1	A	0 -17% gravity	

The earthquake in August 1974 was the strongest experienced by the county with a magnitude of 4.3. No damage or injuries were reported. The table below shows the date, time, location and magnitude of previous events.

Table 2.22

Date	Magnitude	Epicenter and Distance Felt	Estimated Losses
08/02/1974	4.3	33.87 N, 82.49W and felt up to 8 km away	NR
11/05/1974	3.7	33.73 N, 82.22 W and felt up to 24 km away	NR
12/03/1974	3.6	33.95 N, 82.50 W and felt up to 17 km away	NR
01/03/1992	3.2	33.95 N, 82.46 W and felt up to 17 km away	NR
09/02/2001	2.7	33.79 N, 82.35 W and felt up to 11 km away	NR
03/14/2007	2.1	33.78 N, 82.32 W and felt up to 15 km away	NR
07/19/2007	2.7	33.61 N, 82.35 W and felt up to 23 km away	NR
03/25/2015	2.5	33.759°N 82.388°W depth 15.8 km	NR
04/07/2013	2.5	33.860°N 82.456°W depth 6.1 km	NR
04/16/2013	2.2	33.876°N 82.457°W depth 6.1 km	NR
04/23/2013	1.9	33.871 N 82.463W 0.0 km	NR
04/26/2013	2.1	33.774°N 82.403°W depth 10.2 km	NR
04/26/2013	2.8	33.776°N 82.377°W depth 12.0 km	NR
04/26/2013	2.2	33.779°N 82.388°W depth 10.1 km	NR
04/27/2013	2.3	33.776°N 82.381°W depth 5.3 km	NR

Source: USGS, The Lincoln Journal, interviews, city-data.com

Based on a 20-year cycle hazard history there is a 20% chance of an annual earthquake event.

- C. Assets Exposed to Hazard and Estimate of Potential Losses** - All critical facilities, personnel, and public property in Lincoln 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, personnel, and public property in Lincoln County are susceptible to damage caused by an earthquake. The table below shows assets by jurisdiction that could be at potential risk of damage from an earthquake hazard event.

Table 2.23

Jurisdiction	Number of Structure/Properties	Value	Population
Lincoln County (Unincorporated)	15,215	1,349,646,614	5,850
Lincolnton	1,942	153,495,731	1,876
TOTAL FOR COUNTY	17,157	1,503,143,344	7,726

Source: Lincoln County Tax Assessor

In summary, there is a population of 7,726 and 17,157 structures/properties totaling less than \$1.5 billion which could potentially be at risk to an earthquake event. The table below shows the number of critical facilities potentially at risk by each jurisdiction along with content and replacement value (See Appendix A, Section V and Appendix D).

Table 2.24

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value \$	Content Value \$	Occupancy	
					Day	Night
Lincoln County	3	32	51,699,394	4,623,476	1,367	54
Lincolnton	3	12	9,333,374	331,900	18	2
Lincolnton	0	4	2,750,000	0	0	0
TOTAL		48	63,782,768	4,955,376	1,385	56

- D. Land Use and Development Trends** - The focus of Lincoln County's growth is on the natural resources, the lake area. The area adjacent to the Army Corps of Engineers property is being developed into residential subdivisions. There has been no new adoption of development or building regulations to increase or decrease the overall vulnerability to hazard events. There are no specific land use and development trends in relation to earthquakes currently.
- E. Multi-jurisdictional Concerns** - All of Lincoln 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. Based on a 20-year cycle hazard history there is a 20% chance of an annual earthquake event. To summarize, there are approximately 17,157 structures in the county totaling less than \$1.5 billion with a population of 7,726. The planning committee identified specific mitigation goals, objectives and action items related to earthquakes, which can be found in Chapter III, Section VII.

CHAPTER 3: MITIGATION STRATEGIES

SECTION I. INTRODUCTION TO MITIGATION STRATEGY

This chapter addresses the mitigation strategy requirements of 44 CFR Section 201.6 (c)(3): “A mitigation strategy 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 continue 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 should 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 Lincoln County and Lincolnton is to protect the safety, health and well-being of all county citizens, to protect public and private property, and to lessen the overall effects of a hazard event.

The Lincoln County Comprehensive Plan 2018-2022 presents future development scenarios for Lincoln County. The focus of Lincoln County’s growth is on the natural resources, the lake area. The area adjacent to the Army Corps of Engineers property is being developed into residential subdivisions. Agricultural and forestry land located in this area will eventually decrease, and residential use will increase. Commercial land will increase once residential subdivisions are established and the demand for local goods and services increases.

Lincolnton has a very different land use pattern. In Lincolnton, almost 80 percent of land use is residential and just over five percent commercial, highlighting more intense uses and a larger concentration of population and commerce. There 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 and Lincolnton 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. Lincoln County has an annual budget of around \$15.5 million, and Lincolnton's 2020 budget is around \$1.3 million. It should be noted that mitigation action steps with high dollar amounts cannot be completed without grant funds and careful budget planning by both jurisdictions.

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

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

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

Table 3. 3 Fiscal Capabilities

Financial Resources	Lincoln County	Lincolnton	Accessible or Eligible to Use (Yes/No)
Community Development Block Grants (CDBG)	Y	Y	Y
Capital improvements project funding	Y	Y	Y
Authority to levy taxes for specific purposes	Y	Y	Y – Vote required
Fees for water, sewer, gas, or electric service	Y	Y	Y
Impact fees for homebuyers or developers for new developments/homes	N	N	N
Incur debt through general obligation bonds	Y	Y	Y

Incur debt through special tax and revenue bonds	Y	Y	Y – Vote required
Withhold spending in hazard-prone areas	N	N	N
Other Grants	Y	Y	N

Table 3.4 Administrative and Technical Capabilities

Staff/Personnel Resources	Lincoln County	Lincolnton	Dept./Agency and Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Y	Building Dept./ Code Enforcement/ Public Works CSRA RC/Contract as Needed
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Y	Building Dept./ Code Enforcement
Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Y	Y	Public Works/CSRA RC Staff
Floodplain manager	N	N	
Surveyors	N	N	Contracted as needed
Staff with education or expertise to assess the community's vulnerability to hazards	Y	Y	Public Safety/EMA
Personnel skilled in GIS and/or HAZUS	Y	Y	CSRA RC
Emergency manager	Y	Y	EMA
Grant writers	Y	Y	CSRA RC

C. Community Mitigation Goals

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

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

The capabilities assessment above aided in forming realistic mitigation actions. This capabilities assessment can then incorporate results of the STAPLEE worksheet to 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 below in Section D, 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 modifications of existing buildings or structures to protect them from hazards, 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 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 3.6.

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

Lincolnton 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.

The *Joint Lincoln County Comprehensive Plan 2023-2028*, was adopted by resolution by the Lincoln County Board of Commissioners and the Lincolnton City Council. The joint comprehensive plan update takes place every five years. The planning process examines the current and future trends and assesses the strengths and opportunities available to achieve their community vision. This document drives the decision-making process for the County and the City of Lincolnton. The Comprehensive Plan also examines existing land use and projects future land use. Land Use Maps can be found in Appendix B.

iii. Community Values, Historic & Special Considerations

The National Register of Historic Places (NRHP) is the nation's list of historic buildings, structures, sites, objects and districts worthy of recognition and preservation. Currently, there are 10 NRHP-listed resources in Lincoln County.

There are numerous historic buildings in Lincoln County. It was the first county in Georgia to have a county-wide listing in the National Register of Historic Places. Over 170 historic buildings in Lincoln County are listed in the National Register.

- **Amity School**, Clay Hill Road, west of junction with SR 43, Lincolnton

- **Chennault House**, NE of Danburg at junction of SR44 and GA79, Danburg
- **Double Branches Historic District**, Double Branches Road, Lincolnton
- **Lamar Blanchard House**, N. Washington and Ward Streets, Lincolnton
- **Lincolnton Historic District**, roughly along Washington, Peachtree, Goshen and Elm Streets, Lincolnton



- **Lincoln County Courthouse**, Humphrey Street, Lincolnton
- **Lincolnton Presbyterian Church and Cemetery**, N. Washington St., Lincolnton
- **Matthews House**, N. Washington St., Lincolnton
- **Simmons-Cullars House**, Junction GA79 and CR 25, Lincolnton
- **Woodlawn Historic District**, Junction of Salem Church and Woodlawn-Amity Roads, Lincolnton

The following is an inventory of residential properties of great significance and value to the community.

- Pinson House, circa 1790, Stagecoach House, near Double Branches Baptist Church
- Blalock-Wright House, owner, the Mildred Estes Fortson Foundation
- Price House, Victorian, in Double Branches Historic District (NR listed)
- In Lincolnton Historic District (NR listed):
- Sears-Roebuck House
- Nash-Sales-Lawson House
- Shell Door House, next to the Lincoln Center
- Groves-May House
- Rhodes House
- Albea House
- Holly Ho, Hollingshead-Hogan House
- Spratlin House
- Norman House (Rees Funeral Home)
- Dallas House
- Carvin-McGee-Arthur House
- Glaze-Rankin-Jordan House
- Ashmore House



- Burch House
- L.G. Greene House

The Chennault and Matthews Houses, NR listed, in the northern rural section of Lincoln County, are two remaining antebellum houses that are almost mirror images of each other.

The Simmons-Cullars House, built 1826, NR listed, and located on the Goshen Road, burned in the late 1990s. The owners chose to reconstruct the house. A significant number of 10 outbuildings are included in the nomination. The outbuildings mostly date to 1905 but reflect the variety of agricultural and self-sufficient living activities that took place on the farm headquartered at the main house.

The Blalock-Wright House, circa 1790, is one of the oldest houses in Lincoln County near the city limits. The house was built as a two-room house and added onto about 1850. The UGA School of the Environment, Historic Preservation graduate class, prepared a historic structures report of the house and its tenant house.



The houses in the Lincolnton Historic District, NR listed, consist for the most part of one- and two-story, wood-framed houses constructed from circa 1848 through the 1940s. One of the most interesting high style residences is the Sears, Roebuck and Company, “Modern Home No. 124” built in 1911, that was mail ordered, pieces shipped by train and assembled from a kit.

The Double Branches Historic District, NR listed, is a rural linear community with 14 contributing buildings. The houses range from very simple dwellings to elaborate Folk Victorian style residences. The c. 1840 Freeman-Bussey House is a two-story Plantation Plain building with a raised basement and enclosed, full front porch. The Robert Jennings Price House is a 19th century; two-story house located at the south end of the district. The Bussey-May-Moss-Peeler-Tankersley House is a late-19th century gabled-ell cottage on land that was once part of a large plantation. The house has 11 outbuildings. The John Marshall Price House is another prominent residential structure located at the north end of the district. Built in 1907, the structure features a Georgian floor plan with four rooms and a central hallway on each floor. There are three significant outbuildings on this property.

The Woodlawn Historic District, NR listed, is a rural crossroads community with 16 contributing buildings, located in the southwest section of Lincoln County. The area developed around the turn-of-the-century and contains residential buildings that are all wood-framed, one-and two-story structures representing a variety of house types such as the gabled-ell, saltbox, and Georgian cottage. A few wood-framed outbuildings remain and include well houses, barns, smokehouses, and garages.

Recreation

Lincoln County is fortunate to be in the heart of the J. Strom Thurmond Reservoir area. The 70,000-acre reservoir has over 400 miles of shoreline in Lincoln County alone. Each year, thousands of visitors and Lincoln County residents alike enjoy boating, fishing, camping and other activities in and around the lake. Elijah Clark State Park is in the County seven miles northeast of Lincolnton. Additionally, the Army Corps of Engineers operates one park – Amity; at or near the lake and Lincoln County maintains and operates one park at the lake. The rest of the parks located in Lincoln County are leased to the county and the county leases them to a 3rd party.

On the western shores of Clarks Hill Lake is the 447-acre Elijah Clark State Park. A renovated and furnished log cabin museum displays furniture, utensils and tools circa 1780. Weekend tours of the log cabin make this park an educational treat for visitors. Fishermen especially enjoy the park's location on Clarks Hill Lake, the largest man-made lake east of the Mississippi River. Guided fishing trips and boat rentals are available. This state park also features: camping (both tents and trailer sites), fully equipped cottages, picnic areas, beaches, beach pavilion, playgrounds, miniature golf course, and areas for hiking and bike riding.

Bussey Point is a 2,545 acre multiple use recreational area located in Lincoln County. Abundant wildlife, and over nine miles of trails through a natural forest setting make this an ideal location for the recreational enthusiast who enjoys hiking, biking, horseback riding, picnicking and primitive camping. There is an observation tower to enjoy bird watching or the abundant wildlife that roam the area.

In addition to the state and regional parks listed above, Lincoln County operates the 20.1 acre Curry Colvin Recreation Complex. This facility contains 4 baseball fields, 1 softball field, 2 tennis courts, 1 basketball court, a swimming pool, and a soccer field with a walking track. All of the fields are lighted as well. Lincoln County has proposed the construction of a gymnasium at Colvin Recreation Center and the acquisition of 26 more acres of land. Lincoln County also boasts the Rocky Branch Golf Club, which is a challenging 18-hole par 72 golf course open to the public.

- iv. **Prioritization of Actions:** 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. 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 and is in Appendix D. 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 jurisdiction's capabilities. Table 3.5 provides information regarding the review and selection criteria for alternatives.

Table 3.5

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 Lincoln County together with Lincolnton 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 are likely to require extended time frames to accomplish received medium or low priority status.

SECTION II. NATURAL HAZARDS

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

Table 3.1

Chapter III. Section	Updates to Section
A. Flooding	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
B. Dam Failure	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
C. Drought	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
D. Wildfire	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
E. Tornado	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
F. Tropical Storms	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
G. Severe Weather	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
H. Winter Storm	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
I. Earthquake	All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.
J. All Hazards	Completed action steps were removed. All text was reviewed and edited as needed. Goals, Objective, and Actions Steps were updated.

A. Flooding Action Plan

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

Objective A1. Improve the effectiveness of existing flood insurance programs.

- Objective A2.** Evaluate and improve the present drainage infrastructure.
- Objective A3.** Warn citizens when the potential for flooding exists.
- Objective A4.** Lessen the impact to existing buildings, critical facilities and infrastructure 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 have 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 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 potential wildfires. Almost 50 percent of the county is made up of agriculture, forest and woodlands, the possibility for wildfire 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 Lincoln 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 the threat of wildfire occurrence.
- Objective D3.** Increase public awareness of wildfire dangers.

E. Tornado Action Plan

Since the exact time and location of a tornado is not always predictable, all of Lincoln County is vulnerable. A tornado can cause 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 Lincoln County as a result of a tornado event. 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.

Objective E1. Minimize damage to property from tornado 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. Tropical Storm Action Plan

As with many Georgia communities, if a tropical storm were to strike Lincoln 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 Lincoln County as a result of a tropical storm. The committee has identified several courses of action that both local officials and citizens can use in their mitigation efforts against the effects of tropical storms.

Objective F1. Minimize damage to property from tropical storm events.

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

Objective F3. Protect vulnerable populations from the effects of tropical storm events.

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

G. Severe Weather (Thunderstorm Winds, Lightning, Hail)

Thunderstorm winds, lightning and hail can affect the entire county given the right conditions. 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 Lincoln County as a result of a severe weather event. 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 thunderstorm winds, lightning and hail to both new and existing structures.

Objective G1. Minimize damage to property from severe weather events.

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

Objective G3. Protect vulnerable populations from the effects of severe weather events.

Objective G4. Educate the public, including citizens and business owners on disaster preparedness and safety.

H. Winter Storm Plan

Within Lincoln 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, Lincoln County and other southeastern communities must be prepared for the damage caused by winter storms. The fact that winter storms hit Lincoln County infrequently results in other problems, such as lack of equipment and supplies to combat treacherous winter storm conditions. In Lincoln 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.

I. Earthquake Action Plan

As indicated in Chapter II, Section VII. Earthquake conditions have the potential to affect all of Lincoln County. Critical facilities and vulnerable populations are located in the County and the City. As a result, any mitigation steps 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.

J. 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 Lincoln County pertaining to hazard events.
- Objective H5.** Guarantee all evacuation plans are up to date and adequate to meet the needs of the citizens of Lincoln County.
- Objective H6.** Guarantee that all Emergency Response Plans are up to date and adequate to meet the needs of citizens of Lincoln County.
- Objective H7.** Ensure all emergency shelters are ready to meet the needs of the population of Lincoln County and the City of Lincolnton.
- Objective H8.** Provide the citizens of Lincoln County with educational information on Emergency Preparedness.
- Objective H9.** Provide the citizens of Lincoln County with accurate and timely information pertaining to Emergency Preparedness.
- Objective H10.** Collect accurate and complete data pertaining to hazard events within Lincoln County and the City of Lincolnton.

SECTION III. MITIGATION ACTIONS

Table 3.6

Action #	Mitigation Action and Description	Jurisdiction	Responsible Agency/ Dept.	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time frame	Status	Priority
1.	Have Flood Hazard Base Maps created.	Lincoln County/ Lincolnton	BOC, City Council	Flood	A1, A2	1, 2, 4, 5	Non-Structural	\$350,000	General Funds, FEMA HMGP	2025-2030	Ongoing, current; posted on website	Low
2.	Continue to assess stormwater runoff.	Lincoln County/ Lincolnton	Road Dept./ City/County Public Works Dept.	Flood	A4, A5, C2	2, 6	Non-Structural	Staff time	General Funds	2025-2030	Ongoing Done as part of public works job	High
3.	Construct as needed, more storm water retention facilities, storm drain improvements and channel improvements to protect existing and new developments.	Lincoln County/ Lincolnton	Road Dept./ City/County Public Works Dept.	Flood/ Drought	A2, A4	2, 6	Structural	2,000,000	General Funds, CDBG USDA CF, FEMA FMA	2025-2030	Ongoing As funding becomes available	High
4.	Clear run-off and water retention ditches.	Lincoln County/ Lincolnton	Road Dept./ City/County Public Works Dept.	Flood	A4, A5	2, 1	Structural	Staff Time	General Fund	2025-2030	Ongoing Ditches are cleared by Road Dept. as part of their work load.	High
5.	Seek funding for communication towers and voice repeater systems.	Lincoln County/ Lincolnton	EMA/ Police/ Sheriff	All hazards	H1, H9	1	Structural	\$750,000	General Fund, FEMA HMGP, CJCC, JAG, USDA CF, DOJ	2025-2030	Ongoing As funding becomes available	High
6.	Add greenspace to known flood prone areas.	Lincoln County/ Lincolnton	BOC, City Councils, Code and Building Depts.	Flood	A5, A6	4, 5, 6	Non-Structural	Staff time	CDBG, USDA CF, EPA, DNR	2025-2030	Ongoing	Medium

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Jurisdiction	Responsible Agency/ Dept.	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time frame	Status	Priority
7.	Maintain and repair roads in county that are unpassable due to flooding: Areas of interest are Hephzibah Church Rd Goshen Church Rd.: Green Street on Fire Tower Rd.; Walker Hawes Rd.; Crook Rd@ Old Crook Rd.; Smalley Rd.	Lincoln County/	BOC, City Councils, Code and Building Depts.	Flood, Severe Weather	A4, E2, E3	1,2,6	Structural	\$1,500,000	General Funds T-SPLOST FEMA FMA, DOT, CDBG	2025-2030	Ongoing As funding becomes available	High
8.	Evaluate existing water system upgrade as needed.	Lincoln County/ Lincolnton	City/County Public Works Dept.	Flood/ Drought/ Wildfire	A6, C1, D1	1, 2, 6	Structural	\$1,000,000	General Fund, CDBG, USDA, EPA, DNR	2025-2030	Ongoing As funding becomes available	High
9.	Educate residents about water conservation, water restrictions and bans.	Lincoln County/ Lincolnton	BOC, City Councils, City/County Public Works Dept.	Drought	C1, C2	1, 3	Non-Structural	\$2,000.00	EPA, DNR, General Funds	2025-2030	Ongoing	High
10	Develop a public awareness campaign to promote water-saving campaigns (i.e. low-flow water saving devices).	Lincoln County/ Lincolnton	BOC, City Councils, City/County Public Works Dept.	Drought	C1, C2	1, 3	Non-Structural	Staff Time	General Funds	2025-2030	This is done as part of building permits and water departments	High
11	Continue training of all firefighters to include wildland fire training.	Lincoln County/ Lincolnton	EMA, Fire Depts.	Wildfire	D1	1, 2	Non-Structural	\$50,000	General Funds, FEMA AFG	2025-2030	Ongoing	High
12	Seek funding for needed firefighting equipment.	Lincoln County/ Lincolnton	EMA, Fire Depts.	Wildfire	D1	1, 2	Non-Structural	\$250,000	General Funds, FEMA AFG	2025-2030	Ongoing	High
13	Inventory and replace or install more fire hydrants	Lincoln County/ Lincolnton	EMA, Fire Depts., Public	Wildfire	D1	1, 2	Structural	\$100,000	General Funds	2025-2030	Ongoing As funding becomes	High

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Jurisdiction	Responsible Agency/ Dept.	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time frame	Status	Priority
	as needed.		Works								available	
14	Seek funding for fire engines and tankers for local fire departments.	Lincoln County EMA/ Lincolnton	EMA, Fire Depts.	Wildfire	D1	1, 2	Non-Structural	\$1,000,000	General Funds, FEMA AFG	1year and Continual	Ongoing	High
15		Lincoln County/ Lincolnton	Fire Depts. City Councils, BOC	Wildfire	D2, D3	1, 2, 3	Non-Structural	\$25,000.00	General Funds, GFC	2025-2030	Stalled as no communities have been identified to participate	Low
16	Improve public awareness of wildfire techniques and awareness of wildfire dangers.	Lincoln County/ Lincolnton	EMA, Fire Depts., GFC	Wildfire	D2, D3	1, 2, 3	Non-Structural	\$25,000.00	General Funds	2025-2030	Ongoing Info will be added to website and Facebook page as appropriate	High
17	Inspect public buildings and critical facilities and retrofit to reinforce windows, doors, and roofs as needed.	Lincoln County/ Lincolnton	EMA, Fire Depts. Public Works, Building and Code Depts.,	Severe Weather, Winter Storms	E1, E2, E3	1, 2, 6	Structural	\$150,000	General Funds, FEMA HMGP	2025-2030	Ongoing	Low
18	Enforce building codes for all new buildings and critical facilities.	Lincoln County/ Lincolnton	Building and Code Depts.,	Flood, Severe Weather, Winter Storm	A5, A6, E1, E2	1, 2, 6	Structural/ Non-Structural	Staff time	General Funds	2025-2030	Ongoing Enforced when Building Permits are issued.	High
19	Install grounding rods in high value critical facilities.	Lincoln County/ Lincolnton	EMA, Fire Depts. Public Works, Building and Code Depts.,	Severe Weather, Lightning	E1, E3, E4	1, 2, 6	Structural	\$100,000	General Funds, FEMA HMGP	2025-2030	Ongoing As funding becomes available	Medium
20	Review current Emergency Response Plan and update as needed.	Lincoln County EMA	EMA, RC	All hazards	H6, H8	1, 2, 3	Non-Structural	Staff Time	General Funds	2025-2030	Ongoing	High

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Jurisdiction	Responsible Agency/ Dept.	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time frame	Status	Priority
21	Review current evacuation plans paying particular attention to vulnerable populations and update as needed.	Lincoln County EMA	EMA, RC	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, Earthquake	H5, H8	1, 2, 3	Non-Structural	Staff Time	General Funds	2025-2030	Ongoing Updated as required	High
22	Inventory all critical facilities and assess generator needs. Install generators where needed.	Lincoln County/ Lincolnton	BOC, City Councils, Fire Depts., EMA, Police, Sheriff, Public Works, Road Depts.	All hazards	H1, H3	1, 2, 3, 6	Structural/ Non-Structural	\$250,000	General Funds, FEMA HMGP	2025-2030	Ongoing As funding becomes available	High
23	Seek funding for new ambulances.	Lincoln County/ Lincolnton	EMA, BOC, City Councils	All hazards	H2	1	Non-Structural	\$450,000	General Funds, FEMA AFG	2025-2030	Ongoing As funding becomes available	High
24	Seek funding for EMT/Paramedic equipment.	Lincoln County/ Lincolnton	EMA, BOC, City Councils	All hazards	H2	1	Non-Structural	\$250,000	General Funds, FEMA AFG	2025-2030	Ongoing As funding becomes available	High
25	Seek funding to ensure all current and future emergency shelters have back-up generators.	Lincoln County/ Lincolnton	BOC, City Councils, Fire Depts., EMA, Police, Sheriff	All hazards	H7	1, 2, 3, 6	Structural/ Non-Structural	Unknown	General Funds, FEMA HMGP	2025-2030	Ongoing As funding becomes available	High
26	Educate the public on shelter locations and evacuation routes.	Lincoln County/ Lincolnton	Fire Depts., EMA, Police, Sheriff	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, Earthquake	H8, H9	3	Non-Structural	Staff Time	General Funds	2025-2030	Information is posted on Facebook and EMA website as needed	High

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Jurisdiction	Responsible Agency/ Dept.	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time frame	Status	Priority
27	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.	Lincoln County/ Lincolnton	EMA, BOC, City Councils, RC	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, Earthquake	H8, H9	3	Non-Structural	\$10,000	General Funds, FEMA HMGP	2025-2030	Ongoing Information is posted on Facebook and EMA website as needed	High
28	Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after.	Lincoln County/ Lincolnton	EMA, BOC, City Councils, RC	Winter Storm	F1	3	Non-Structural	\$25,000	General Funds	2025-2030	Ongoing Information is posted on Facebook and EMA website as needed	High
29	Distribute flyers and pamphlets to citizens and businesses on earthquake preparedness.	Lincoln County/ Lincolnton	EMA, BOC, City Councils, RC	Earthquake	G3	1,3	Non-Structural	10,000	General Funds	2025-2030	Stalled due to funding and Staff time	Medium
30	Conduct dam breach analysis to identify assets and population at risk in the event of a failure.	Lincoln County/ Lincolnton	EMA, BOC, City Council, RC	Dam Failure	B1, B2	1, 2	Non-Structural	\$100,000	General Funds, DNR	2025-2030	Stalled due to funding	Medium
31	Inventory existing road equipment and purchase needed equipment to maintain roads before, during and after a hazard event.	Lincoln County/ Lincolnton	BOC, City Council, Public Works, Road Depts.	Flood, Severe Weather, Winter Storm	H2	1, 2	Non-Structural	Unknown	General Funds, USDA CF	2025-2030	Ongoing As funding becomes available	Medium
32	Develop coordinated	Lincoln County/	BOC, City Council,	Flood, Severe	H2	1, 2	Non-Structural	Staff Time	General Funds	2025-2030	Stalled due to staff time	Low

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Jurisdiction	Responsible Agency/ Dept.	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time frame	Status	Priority
	management strategies for deicing, and clearing roads of fallen trees and debris.	Lincolnton	EMA, Public Works, Road Depts.	Weather, Winter Storm								
33	Promote the construction of safe rooms in shelter areas and in public buildings.	Lincoln County/ Lincolnton	BOC, City Council, EMA, Fire Depts., Sheriff, Police	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, earthquake	H3	1, 2, 6	Structural	\$150,000	General Funds, FEMA HMGP	2025-2030	Ongoing as funding becomes available	Low
34	Update 911 equipment as needed.	Lincoln County/ Lincolnton	EMA	All hazards	H1, H3	1, 2, 6	Structural	\$150,000	General Funds, FEMA HMGP	2025-2030	Ongoing as funding becomes available	High
35	Create an EMA website and Facebook Page with information pertaining to Emergency Preparedness.	Lincoln County	EMA	All hazards	H4, H5, H6, H7, H8, H9	1, 2, 3	Non-Structural	Staff Time	General Funds	2025-2030	Ongoing	High
36	Implement GIS technology on fire and emergency management vehicles so data can be readily available in the field providing more accurate, timely assessments for future mitigation planning activities.	Lincoln County/ Lincolnton	BOC, City Council, EMA, Fire Depts., Sheriff, Police	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	H9, H10	1, 2, 6	Non-Structural	50,000	General Funds	2025-2030	Ongoing as funding becomes available	High

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Jurisdiction	Responsible Agency/ Dept.	Hazards Addressed	Objective Supported	Goal	Structural/ Non-Structural	Estimated Project Cost	Possible Funding Source(s)	Time frame	Status	Priority
37	Provide NOAA weather radios to elderly and handicap populations (moved to all hazards).	Lincoln County/ Lincolnton	BOC, City Council, EMA,	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	H4, H8, H9	1, 2, 3	Non-Structural	\$50,000	General Funds, FEMA HMGP	2025-2030	Ongoing as funding becomes available	Medium
38	Preform procurement to contract with debris removal firm to have contract in place before hazards to ensure firm can move in immediately.	Lincoln County/ Lincolnton	BOC, City Council, EMA,	Winter Storm, Severe Weather, Flood, Wildfire, Dam failure	A4, H2	1, 2	Non-Structural	Staff Time	General Funds	2025-2030	Continuing	High

- 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 may be retrofitted but cannot always be brought up to stricter regulations.
- C. Special Multi-Jurisdictional Strategy and Considerations:** Lincoln County's growth and future development is fueled, predominantly, by the 413-mile coastal waterfront on Clarks Hill Lake that encompasses the eastern and southern county lines. This lakeshore border comprises Lincoln County's greatest attraction for recreational leisure and her economy is built around complementary services, business, and industry that include boat manufacturing, aquaponic use, recreational leisure, and a second home community. Development regulations for impaired watersheds, groundwater recharge areas with high susceptibility to pollution, water supply watersheds, and along Lake Thurmond need to be continually updated

Another concern is the lack of available data for the county and city on hazard events. A database needs to be created and maintained that provides information on hazard 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 personnel that are dispatched to the area, etc.

D. COMPLETED AND DELETED ACTION STEPS/ UNCHANGED AND/OR CONTINUAL ACTION STEPS

Action #	Mitigation Action and Description	Hazards	Status	Comments/Accomplishments
1.	Have Flood Hazard Base Maps created.	Flood	Continual/Unchanged	As funding becomes available.
2.	Investigate ways to increase Participation Level in the NFIP and CRS.	Flood	Deleted	The cost of participation in the CRS is too costly for this small city and county
3.	Continue to assess stormwater runoff.	Flood	Continual/Unchanged	This is done regularly as part of county and city public works staff.
4.	Construct as needed, more storm water retention facilities, storm drain improvements and channel improvements to protect existing and new developments.	Flood/ Drought	Continual/Unchanged	Completed storm drainage repairs to culverts along Seed Tick Road Goshen Church Road, Guillebeau Road Wright Zellars Road for \$60,000.00
5.	Clear run-off and water retention ditches.	Flood	Continual/Unchanged	This is done regularly as part of county and city public works staff.
6.	Seek funding for communication towers and voice repeater systems.	All hazards	Continual/Unchanged	As funding becomes available.
7.	Investigate ways to enhance adopted ordinances to limit and control building and development in known flood prone areas.	Flood	Completed	Both Lincoln County and Lincolnton have adopted flood plain ordinances
8.	Promote the preservation of areas in and around watercourses.	Flood	Deleted	Development is regulated due to floodplain ordinances.

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Hazards	Status	Comments/Accomplishments
9.	Add green space to known flood prone areas.	Flood	Deleted	Floodplain ordinances limited development, no areas have been identified for greenspace.
10.	Pave roads in county that are unpassable due to flooding: Areas of interest are Goshen Church Rd.; Green Street on Fire Tower Rd.; Walker Hawes Rd.; Crook Rd@ Old Crook Rd.; Smalley Rd. Whiterock Rd	Flood, Severe Weather	Continual/ Additional Areas added	As funding becomes available.
11.	Evaluate existing water systems upgrade as needed.	Flood/ Drought/ Wildfire	Continual/ Unchanged	Completed water system upgrades for \$100,000
12.	Investigate methods to reduce non-point source pollution.	Flood	Deleted	Removed because it is not relevant and no areas has been identified.
13.	Promote increased surface water usage and surface artesian flow for irrigation.	Drought	Deleted	No longer relevant. Deals with private property.
14.	Enact a program to educate the residents about water conservation issues.	Drought	Continual/ Unchanged	
15.	Increase public awareness of watering restrictions and bans.	Drought	Continual	GA EPD water restrictions are posted and advertised as required by law.
16.	Develop a public awareness campaign to promote water-saving campaigns (i.e. low-flow water saving devices).	Drought	Continual/ Unchanged	
17.	Continue training of all firefighters to include wildland fire training.	Wildfire	Continual/ Unchanged	
18.	Seek funding for needed firefighting equipment.	Wildfire	Continual/ Unchanged	Bought 6 turnout sets for \$3,000 each. Will continue as funding becomes available.
19.	Inventory and replace or install more fire hydrants as needed.	Wildfire	Continual/ Unchanged	As funding becomes available.
20.	Seek funding for fire engines and tankers for local fire departments.	Wildfire	Continual/ Unchanged	As funding becomes available.
21.	Enforce defensible space (30-ft minimum setbacks) between buildings and flammable brush and forestland where possible.	Wildfire	Completed	This is followed to the greatest extent possible
22.	Continue following GFC service of construction and maintenance of firebreaks around forests and structures, along abandoned roadbeds.	Wildfire	Completed	This is followed to the greatest extent possible
23.	Strictly follow GFC's guidelines for control burns and permits.	Wildfire	Completed	This is strictly enforced
24.	Implement the Firewise Community Initiative where appropriate	Wildfire	Continual/ Unchanged	If a neighborhood is identified
25.	Improve public awareness of wildfire techniques and awareness of wildfire dangers.	Wildfire	Continual/ Unchanged	
26.	To the greatest extent possible,	Severe	Deleted	Funds are not available for this

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Hazards	Status	Comments/Accomplishments
	identify all owners of inadequately installed manufactured homes. Offer a financial incentive to retrofit them with an appropriate level of anchoring and support.	Weather		activity.
27.	Inspect public buildings and critical facilities and retrofit to reinforce windows, doors, and roofs as needed.	Severe Weather, Winter Storms	Completed	All buildings have been inspected.
28.	Enforce building codes for all new buildings and critical facilities.	Flood, Severe Weather, Earthquake, Winter Storm	Continual/Unchanged	Building Codes are enforced. Building Codes and Ordinances were reviewed and update August 2019
29.	Inspect all county and municipal critical facilities for proper grounding.	Flood, Severe Weather, Winter Storm	Completed	
30.	Install lightning rods in high value critical facilities.	Severe Weather, Lightning	Continual/Unchanged	As funding becomes available.
31.	Install surge protectors on critical facilities' electronic equipment in essential county and city facilities.	Severe Weather, Lightning, Winter Storm	Completed	
32.	Review current Emergency Response Plan and update when needed.	All hazards	Continual	LEOP update was completed in 2016
33.	Review current evacuation plans, paying particular attention to vulnerable populations and update as needed.	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, Earthquake	Continual/Unchanged	Plans are reviewed as needed.
34.	Develop a public awareness program about the installation of lightning grounding systems on critical infrastructure, residential and business properties.	Severe Weather, Lightning	Continual/Unchanged	
35.	Inventory all critical facilities and assess generator needs. Install generators where needed to include county barn and fuel station. Lift stations.	All hazards	Continual/Unchanged	As funding becomes available.
36.	Seek funding for new ambulances.	All hazards	Continual/Unchanged	As funding becomes available.
37.	Seek funding for EMT/Paramedic equipment.	All hazards	Continual/Unchanged	As funding becomes available.
38.	Seek funding to ensure all current and future emergency shelters have back-up generators.	All hazards	Continual/Unchanged	As funding becomes available.
39.	Educate the public on shelter locations and evacuation routes.	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, Earthquake	Continual/Unchanged	

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Hazards	Status	Comments/Accomplishments
40.	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.	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, Earthquake	Continual/Unchanged	
41.	Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after.	Winter Storm	Continual/Unchanged	
42.	Review current codes to comply with and enforce the State building code with criteria for design snow load for buildings and structures.	Winter Storm	Completed	Codes have been reviewed and are enforced.
43.	Conduct a survey to determine structural capability of critical facilities to function after a seismic event. Retrofit as needed.	Earthquake	Continual/Unchanged	If and when funding comes available for this activity.
44.	Distribute flyers and pamphlets to citizens and businesses on earthquake preparedness.	Earthquake	Continual/Unchanged	Stalled due to staff time.
45.	Conduct earthquake scenarios to estimate potential loss of life and injuries, the types of potential damage, and existing vulnerabilities.	Earthquake	Continual/Unchanged	This could be completed as part of the Hazus Scenario will be requested at next update of plan.
46.	Create a data base to record hazard event information.	All hazards	Continual/Unchanged	Stalled due to staff time.
47.	Conduct dam breach analysis to identify assets and population at risk in the event of a failure.	Dam Failure	Continual/Unchanged	As funding becomes available
48.	Draft ordinance prohibiting development in dam breach zone.	Dam Failure	Continual/Unchanged	
49.	Install dam failure alert systems.	Dam Failure	Deleted	All dams have an alert system
50.	Inventory existing road equipment and purchase needed equipment to maintain roads before, during and after a hazard event.	Flood, Severe Weather, Winter Storm	Continual/Unchanged	As funding becomes available
51.	Develop coordinated management strategies for deicing, snow plowing, and clearing roads of fallen trees and debris	Flood, Severe Weather, Winter Storm	Continual/Unchanged	As funding becomes available
52.	Promote the construction of safe rooms in shelter areas and in public buildings.	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm, earthquake	Continual/Unchanged	As funding becomes available
53.	Update 911 equipment as needed.	All hazards	Continual	Upgraded for \$250,000 and will continue as needed and funding becomes available
54.	Request that all new education facilities be designed to serve as public shelters for emergency	All hazards	Continual/Unchanged	No new educational facilities have been built

2025 Multi-Hazard Pre-Disaster Mitigation Plan Update

Action #	Mitigation Action and Description	Hazards	Status	Comments/Accomplishments
	purposes.			
55.	Promote and participate in the following American Red Cross Programs • Disaster Resistant Neighborhoods Program • Business and Industry Preparedness Seminar • Community Disaster Education Preparedness presentations.	All hazards	Continual/Unchanged	
56.	Create an EMA website and Facebook Page with information pertaining to Emergency Preparedness.	All hazards	Continual/	EMA website is up but Facebook is stalled due to lack of staff.
57.	Work with local cable and radio providers to enhance and broadcast public education on Emergency Preparedness.	All hazards	Completed	The county and city have a good relationship with media
58.	Implement GIS technology on fire and emergency management vehicles so data can be readily available in the field providing more accurate, timely assessments for future mitigation planning activities.	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	Continual/Unchanged	As funding becomes available and new vehicles are purchased.
59.	Purchase a portable sewer transfer pumping unit.	Flood, Severe Weather, Winter Storm	Deleted	It is more cost effect to rent one if need than to won and have to maintain.
60.	Herman Nelson Warming System AIR HEATER w/TRAILER.	Winter Storm	Deleted	Not cost effective.
61.	Provide NOAA weather radios to elderly and handicap populations.	Flood, Wildfire, Dam Failure, Severe Weather, Winter Storm	Deleted	The county has CODE RED.
62.	Review existing comprehensive, development and land use plans to address flood prone areas.	Flood	Completed	Comprehensive plan and land use regulations address development in these areas.
63.	Preform procurement to contract with debris removal firm to have contract in place before hazards to ensure firm can move in immediately.	Winter Storm, Severe Weather, Flood, Wildfire	Continual/Unchanged	
64.	Run HAZUS scenarios once the software issues are resolved.	Flood/ Severe Weather	Completed	A copy can be found in Appendix C
65.	Contract with the Regional Commission to create a Flood Mitigation Assistance Plan.	Flood	Deleted	County does not consider this a priority at this time.
66.	Promote and participate in the following American Red Cross Programs • Disaster Resistant Neighborhoods Program • Business and Industry Preparedness	All Hazards	Deleted	Redcross does not offer those programs anymore.

Action #	Mitigation Action and Description	Hazards	Status	Comments/Accomplishments
	Seminar • Community Disaster Education Preparedness presentations.			
67.	Promote the preservation of areas in and around watercourses.	Flood	Cancelled	
68.	Investigate methods to reduce non-point source pollution.	Food	Cancelled	
69.	Implement the Firewise Community Initiative where appropriate.	Wildfire	Cancelled	
70.	Develop a public awareness program about the installation of lightning grounding systems on critical infrastructure, residential and business properties.	Severe weather, lightning	Cancelled	
71.	Draft ordinance prohibiting development in dam breach zone.	Dam Failure	Cancelled	
72.	Create a data base to record hazard event information.	All Hazards	Cancelled	
73.	Conduct earthquake scenarios to estimate potential loss of life and injuries, the types of potential damage, and existing vulnerabilities.	Earthquake	Cancelled	
74.	Conduct a survey to determine structural capability of critical facilities to function after a seismic event. Retrofit as needed.	Earthquake	Cancelled	

CHAPTER 4: PLAN INTEGRATION AND MAINTENANCE

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

Chapter 1 Section	Updates to Section
I. Implementation Action Plan	General text edits based on current conditions and schedules; elaborated on how HMP is incorporated into other plans.
II. Evaluation, Monitoring, Updating Note whether the original method and schedule worked	Text edits based on previous experiences and future public involvement.
III. Plan update and maintenance	Regulated update and maintenance schedule and public involvement

SECTION I. Implementation Action Plan

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

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

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

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

the prioritization of these suggested mitigation actions. Criteria included perceived cost benefit or cost effectiveness, availability of potential funding sources, overall feasibility, measurable milestones, multiple objectives, and both public and political support for the proposed actions.

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

The committee was asked to review the STAPLEE score sheet and list of mitigation actions. Each action was discussed and a consensus reached by the group on the importance of each item. A score of high, medium or low was assigned to each to each item to help determine the priority level.

- High: Strategies that would have a direct, large impact on mitigation of hazards. A project that meets multiple plan goals and objectives, benefits exceed cost, has funding secured under existing programs or authorizations, or is grant-eligible, and can be completed in 1 to 5 years. It may also be a project that just requires staff time but has great benefit, i.e., adoption of flood plain ordinances.
 - Medium: Strategies that meet at least one plan goal and objective, benefits exceed costs, funding has not been secured or requires substantial staff time and can be completed in 1 to 5 years.
 - Low: Strategies that are important but require substantial staff time, or addition of staff and resources that are not readily available to implement.
2. **Use of cost benefit refers 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 require no significant financial commitment by the community.

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

3. **Use of other calculations:** Estimation of potential damages and costs in the event of a natural hazard achieves two ends: (1) it enables the identification of critical economic targets for mitigation measures and (2) to enhance the ability to prioritize post-disaster response in aiding the community to recover.
4. **Use of other review structure:** All goals were discussed in detail to determine what was considered a priority for the EMA personnel.

D. Incorporation of Local PDM Plan into other plans/planning measures: The requirements of this Hazard Mitigation Plan are taken into consideration and incorporated into the Counties Comprehensive Plan/(STWP)Work Program, Local Emergency Operations Plans, and all other plans as appropriate. The County along with the City of Lincolnton work jointly to produce these planning documents.

The STWP will be updated in 2028 along with the Joint Comprehensive Plan. The RC facilitates the planning process. The County takes the lead, and all jurisdictions must participate. Goals and strategies will be incorporated in the land use section of the comprehensive plan update. Mitigation strategies will be listed in the STWP to ensure their eligibility for funding from the state if available. In addition, relevant sections will be included in the revision of the Local Emergency Operations Plan. 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 consultants and planning committees. To facilitate inclusion of this Plan, Lincoln County and the City of Lincolnton 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

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, Lincoln County is required to review the plan annually and revise the plan every five years. The

revision process will be consistent with the FEMA planning requirements as stipulated in the 44 CFR 201.6.

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

- a. Each hazard will be reviewed. Any new information pertaining to new and/or previous events will be added to the plan.
- b. Any new critical facilities will be added to the plan.
- c. Critical facilities information will be updated as needed.
- d. All mitigation goals, objectives and action steps will be reviewed for relevance and completion status. All mitigation goals, objectives and action steps that have been completed or are no longer relevant will be documented.
- e. New mitigation activities will be added if necessary.
- f. Public participation will be monitored and documented.

C. Responsibility: At the direction of the EMA Director, the committee shall be reconvened for the revision process which will include a schedule, timeline, and a list of the agencies or organizations participating in the plan revision. Lincoln 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 updating committee will also be responsible for disseminating information to stakeholders within their respective jurisdictions.

Jurisdiction	Hazard Mitigation Update Committee	Review
	Point-of-Contact	Schedule
Lincoln County	Emergency Management Director	Annually
Lincolnton	City Clerk	Annually

D. Timeframe: The committee has set the second Tuesday of every March 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 in all government and community buildings.

SECTION III. PLAN UPDATE AND MAINTENANCE

A. Public involvement: Lincoln 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 December review meeting, a notice will be published in the legal organ of Lincoln 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: Pursuant to the requirements set forth in the Disaster Mitigation Act of 2000, the community is again required to update and evaluate the plan no more than five years after its adoption. At least one year prior to the end of the required five-year update period, the EMA Director will begin the planning process for a new update to this plan. This will consist of establishing a new planning committee that will be tasked with completing the update following the same process used for this update.

No later than the conclusion of the five-year period following approval of the plan update, the EMA Director shall submit a revised Hazard Mitigation Plan to GEMA for its approval. It is important to note that the plan update process, as established by the planning committee, is subject to change, depending upon subsequent regulations and/or requirements set forth by GEMA and FEMA.

CHAPTER 5: CONCLUSION

SECTION I: SUMMARY

Through the update process of this plan, Lincoln 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, and goals, objectives and mitigation actions have been compiled and prioritized. 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 updated PDM planning process, Lincoln County officials have obtained more complete and accurate information and knowledge regarding the County's disaster history, the presence of natural hazards, and the likelihood of each of these hazards occurring within the County, and the potential impacts and challenges these hazards present to the community.

All meetings were open to the public and advertised in *The Lincoln Journal*, providing Lincoln 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 Lincoln 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 Lincoln County Pre-Disaster Hazard Mitigation Planning Committee is to

“Make the citizens, businesses, communities and local governments of Lincoln 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 Lincoln 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 Guide*(FEMA)
GEMA Supplements to FEMA Pre-Disaster Mitigation How-to Guides (GEMA)
The Lincoln Journal
The Augusta Chronicle

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>
NOAA NCEI www.ncdc.noaa.gov
National Inventory of Dams <http://crunch.tec.army.mil/nid/webpages/nid.cfm>
New Georgia Encyclopedia <http://www.georgiaencyclopedia.org/nge/Home.jsp>
United States Census Bureau <http://www.census.gov/>
United States Drought Monitor
<https://droughtmonitor.unl.edu/Data/DataDownload/WeeksInDrought.aspx>
<http://www.sercc.com/> The Southeast Regional Climate Center (SERCC)
<http://www.tornadohistoryproject.com/tornado/Georgia> Tornado History Project

Other Sources:

CSRA Regional Commission
Georgia Department of Natural Resources
Georgia Forestry Commission
Lincoln County, Lincolnnton
Lincoln County Tax Assessor

APPENDICES

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

I. FLOOD

Referenced in Chapter 2 – Section 1

A. Data – Flood Events Table, GEMA Critical Facility Hazard Score Report

II. DAM FAILURE

Referenced in Chapter 2 – Section II

A. Data – List of Dams in Lincoln County

B. Map – Map of dam locations in Lincoln County

III. DROUGHT

Referenced in Chapter 2 – Section III

A. Data – List of Drought Events in Lincoln County

B. Map – Drought monitor map comparing two dates

IV. WILDFIRE

Referenced in Chapter 2 – Section IV

A. Data – Wildfire by Acre Events, Wildfire by Number Events, GEMA Critical Facility Hazard Score Report

V. TORNADO

Referenced in Chapter 2 – Section V

A. Data – Lincoln County Tornado Events

VI. TROPICAL STORM

Referenced in Chapter 2 – Section VI

A. Data – Lincoln County Tropical Storm List

VII. SEVERE WEATHER (THUNDERSTORM WINDS, LIGHTNING, AND HAIL)

Referenced in Chapter 2 – Section VII

A. List of Severe Weather Events for Lincoln County

VIII. WINTER STORMS

Referenced in Chapter 2 – Section VIII

A. Data – List of Winter Storms for Lincoln County

IX. EARTHQUAKE

Referenced in Chapter 2 – Section IX

A. Data – List of Earthquake events for Lincoln County

X. Critical Facility location map of Lincoln County

Appendix B –Growth and Development Trends / Community Information

- I. Local Comprehensive Plan Update, Statistics / Tables
- II. County Labor Profile
- III. County USDA Profile

Appendix C –Planning documents

- I. Hazard Risk Analysis Report
- II. Southern Wildfire Risk Analysis Summary Report

Appendix D – Worksheets used in planning process

- I. Completed GEMA/local worksheets #3a

Appendix E – Copies of Correspondence

- I. Public notice
- II. Meeting Agendas
- III. Sign-in sheets

APPENDIX A

HAZARD IDENTIFICATION, RISK ASSESSMENT AND VULNERABILITY

I. FLOOD

Referenced in Chapter 2 – Section 1

A. Data – Flood Events Table, GEMA Critical Facility Hazard Score Report

II. DAM FAILURE

Referenced in Chapter 2 – Section II

A. Data – List of Dams in Lincoln County

B. Map – Map of dam locations in Lincoln County

III. DROUGHT

Referenced in Chapter 2 – Section III

A. Data – List of Drought Events in Lincoln County

B. Map – Drought monitor map comparing two dates

IV. WILDFIRE

Referenced in Chapter 2 – Section IV

A. Data – Wildfire by Acre Events, Wildfire by Number Events, GEMA Critical Facility Hazard Score Report

V. TORNADO

Referenced in Chapter 2 – Section V

A. Data – Lincoln County Tornado Events

VI. TROPICAL STORM

Referenced in Chapter 2 – Section VI

A. Data – Lincoln County Tropical Storm List

VII. SEVERE WEATHER (THUNDERSTORM WINDS, LIGHTNING, AND HAIL)

Referenced in Chapter 2 – Section VII

A. List of Severe Weather Events for Lincoln County

VIII. WINTER STORMS

Referenced in Chapter 2 – Section VIII

A. Data – List of Winter Storms for Lincoln County

IX. EARTHQUAKE

Referenced in Chapter 2 – Section IX

A. Data – List of Earthquake events for Lincoln County

X. Critical Facility location map of Lincoln County

Lincoln County Flood Events									
begin_date_time_formatted	begin_lat	begin_lon	damage_crops	damage_property	episode_id	episode_narrative	event_id	event_narrative	event_type
04/06/2022 17:30 EST	33.6954	-82.4291	0.01K	0.01K	166395	An upper level disturbance and the interaction of surface boundaries, along with increasing moisture, led to thunderstorms that developed and moved east across the region during the afternoon. Sufficient atmospheric instability and shear led some of the thunderstorms to produce damaging wind and tornadoes, along with locally heavy rain.	1007192	Several roads flooded and closed including Salem Church Rd. Exact locations unknown. Time estimated.	Flash Flood
07/07/2020 11:14 EST	33.7106	-82.5221	0.10K	5.00K	148126	An upper trough, along with a very moist atmosphere, contributed to a band of heavy showers and thunderstorms that set up in an area of low level moisture convergence just east of a slow moving surface low, leading to heavy rain and flash flooding. Rainfall amounts of 4 to 6 inches, most of which fell over the course of a few hours, led to some roads flooding and washing out.	892022	Lincoln Co dispatch reported Old Crook Rd flooded and impassable. Exact location and times estimated.	Flash Flood
07/07/2020 11:11 EST	33.6919	-82.4662	0.10K	5.00K	148126	An upper trough, along with a very moist atmosphere, contributed to a band of heavy showers and thunderstorms that set up in an area of low level moisture convergence just east of a slow moving surface low, leading to heavy rain and flash flooding. Rainfall amounts of 4 to 6 inches, most of which fell over the course of a few hours, led to some roads flooding and washing out.	892021	Lincoln Co dispatch reported Amity-Woodlawn Rd washed out near State Road 220. Exact location and times estimated.	Flash Flood

Lincoln County Flood Events									
07/07/2020 11:04 EST	33.7626	-82.4038	0.10K	5.00K	148126	An upper trough, along with a very moist atmosphere, contributed to a band of heavy showers and thunderstorms that set up in an area of low level moisture convergence just east of a slow moving surface low, leading to heavy rain and flash flooding. Rainfall amounts of 4 to 6 inches, most of which fell over the course of a few hours, led to some roads flooding and washing out.	892020	Lincoln Co dispatch reported flooding on Augusta Hwy (State Road 47) near State Road 220. Exact location and times estimated.	Flash Flood
06/03/2015 20:15 EST	33.87	-82.51	0.00K	2.00K	94770	Heavy rains dropp 2 to 4 inches of rain in a couple of hours across portions of Lincoln and Columbia counties washing out roads and a 60 inch culvert.	569564	Sheriff reported flash flooding on Elberton Highway closing the road.	Flash Flood
06/03/2015 20:15 EST	33.8556	-82.495	0.00K	35.00K	94770	Heavy rains dropp 2 to 4 inches of rain in a couple of hours across portions of Lincoln and Columbia counties washing out roads and a 60 inch culvert.	569563	Sheriff reported flash flooding along Reed creek with 2-4 feet of water closing roads and washing out a 16 inch culvert.	Flash Flood
06/03/2015 20:00 EST	33.8613	-82.4936	0.00K	2.00K	94770	Heavy rains dropp 2 to 4 inches of rain in a couple of hours across portions of Lincoln and Columbia counties washing out roads and a 60 inch culvert.	569562	Sheriff reported flooding at the intersection of Augusta Hwy and Old Petersburg Road.	Flash Flood

GEMA Critical Facility Hazard Score Report

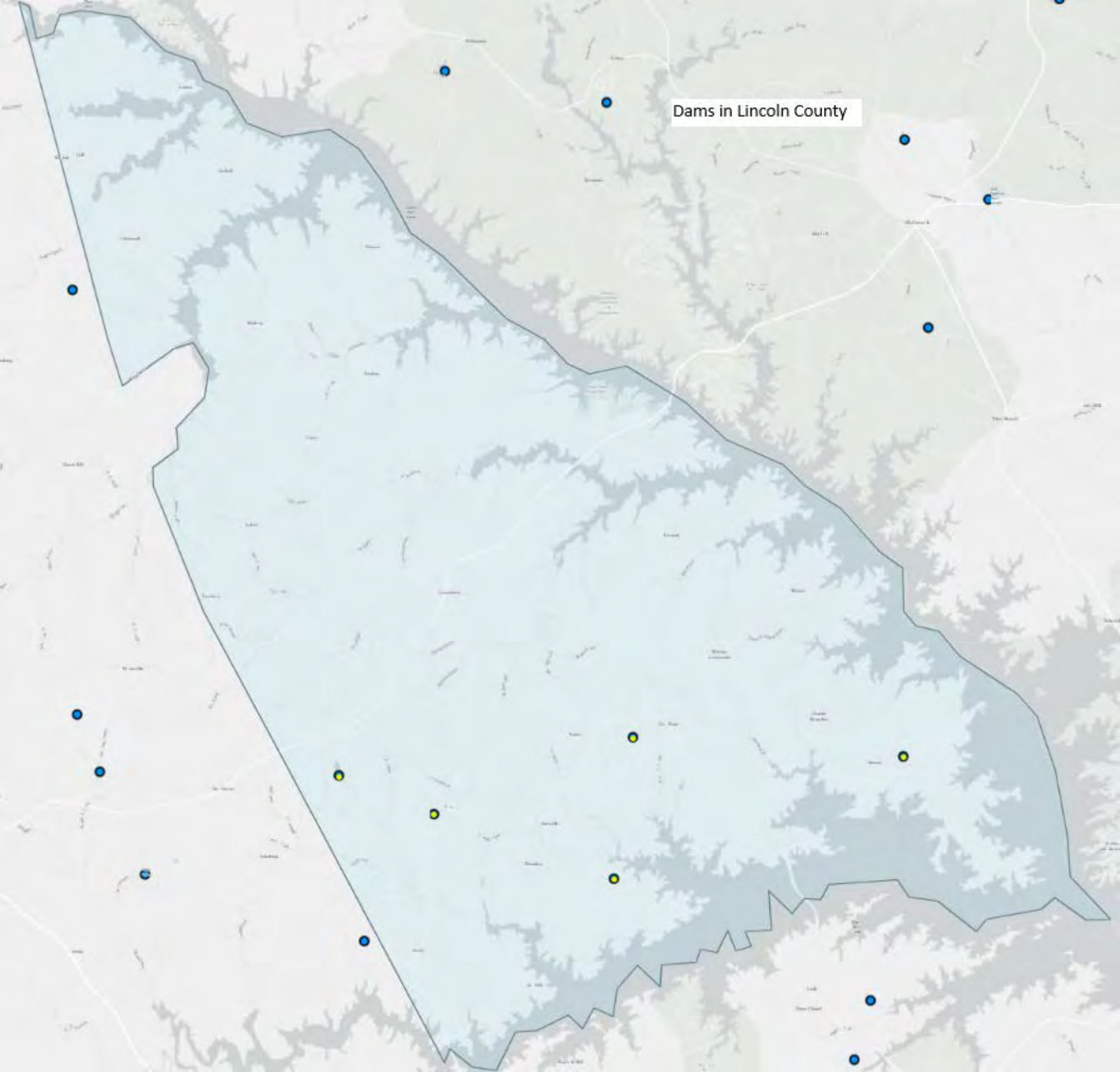
Flood Lincoln County						
Facility Name	Facility Address	Jurisdiction	Facility Value	Facility Value Year	Contents Replacement Value	Flood Hazard Score
Wilkes Telephone Switching Office	155 S Peachtree St	Lincoln County	1,500,000.00	2013	0.00	0
Well #7		Lincolnton city	100,000.00	2018	0.00	0
Well #6		Lincolnton city	100,000.00	2018	0.00	0
Well #4		Lincolnton city	100,000.00	2018	0.00	0
Well #3		Lincolnton city	100,000.00	2018	0.00	0
The Lincoln Center	160 May Ave	Lincoln County	643,380.00	2024	0.00	0
Remsen Road water Tank		Lincolnton city	1,000,000.00	2018	0.00	0
Petersburg Lift Station		Lincoln County	200,000.00	2014	0.00	3
Old High School Building	345 Ward Ave	Lincoln County	5,473,582.00	2013	108,641.00	0
Murray Jones Lift Station		Lincoln County	200,000.00	2014	0.00	0
Midway VFD Station #7	2632 Midway Church Rd	Lincoln County	180,000.00	2024	600,000.00	0
Midway VFD Station 8	1035 Bethany Church	Lincoln County	180,000.00	2024	0.00	0
Martins Crossroads VFD Station 6	Ga 220E @ Hwy 378	Lincoln County	96,000.00	2024	240,000.00	0
Martins Corssroads VFD Station 5	3911 Double Branches Road	Lincoln County	300,000.00	2024	600,000.00	0
Loco VFD Station #3	2650 Hwy 220 West	Lincoln County	210,000.00	2024	600,000.00	0
Loco VFD Station	2351 Lovelace Rd	Lincoln County	120,000.00	2024	0.00	0
Lincolnton Water Tower - May Ave	May Ave	Lincolnton city	129,188.00	2014	0.00	0
Lincolnton Waste Water Treatment Plant	1133 Mitchell Ln	Lincolnton city	3,376,444.00	2014	109,821.00	0
Lincolnton Volunteer Fire Department	161 N Peachtree St	Lincolnton city	441,182.00	2024	40,431.00	0
Lincolnton Public Works (City Barn)	126 School St	Lincolnton city	180,864.00	2014	38,757.00	0
Lincolnton Police Department	148 Ward Ave	Lincolnton city	37,920.00	2024	2,572.00	0
Lincolnton Club House	255 N Washington St	Lincolnton city	255,250.00	2014	10,000.00	0
Lincolnton City Hall	125 N Peachtree St	Lincolnton city	558,338.00	2024	31,549.00	0
Lincoln County Sheriffs Office	145 School St	Lincoln County	1,252,125.00	2024	0.00	0
Lincoln County Recreation Complex	1962 Rowland-York Dr	Lincoln County	248,605.00	2006	0.00	0
Lincoln County Public Works	1765 Old Petersburg Rd	Lincoln County	121,720.00	2006	0.00	0
Lincoln County Public Safety - 911	170 School St	Lincoln County	75,720.00	2024	480,000.00	0
Lincoln County Public Library	181 N Peachtree St	Lincoln County	681,810.00	2006	0.00	0
Lincoln County Planning/Zoning and Public Works	107 Perryman Ave	Lincoln County	165,000.00	2006	0.00	0
Lincoln County Office of Emergency Services	160 School St	Lincoln County	240,000.00	2024	0.00	0
Lincoln County Middle School	343 Ward Avenue	Lincoln County	8,387,200.00	2024	499,135.00	0
Lincoln County Industrial Development Authority	112 N Washington St	Lincoln County	113,294.00	2006	0.00	0
Lincoln County High School	200 Charles Ward Elam St	Lincoln County	28,877,680.00	2024	1,279,446.00	0
Lincoln County Health Department	176 N Peachtree St	Lincoln County	363,780.00	2024	0.00	0

Flood Lincoln County						
Facility Name	Facility Address	Jurisdiction	Facility Value	Facility Value Year	Contents Replacement Value	Flood Hazard Score
Lincoln County Elementary School	175 Rowland-York Dr	Lincoln County	1,235,384.00	2024	608,894.00	0
Lincoln County Department of Family and Childrens Services	171 N Peachtree St	Lincoln County	140,600.00	2006	0.00	0
Lincoln County Courthouse	210 Humphrey St	Lincoln County	14,036,608.00	2024	600,000.00	0
Lincoln County BOE Office	423 Metasville Rd	Lincoln County	530,850.00	2006	0.00	0
Lincoln County Board of Tax Assessors	182 Humphrey St	Lincoln County	137,003.00	2006	0.00	0
Lincoln County Board of Education	423 Metasville Road	Lincoln County	509,718.00	2013	125,272.00	0
Industrial Park Lift Station		Lincoln County	200,000.00	2014	0.00	0
Gunby Lift Station		Lincoln County	200,000.00	2018	0.00	0
Graves Mountian Water Tank		Lincolnton city	500,000.00	2018	0.00	0
Double Branches Water Plant		Lincolnton city	1,000,000.00	2018	0.00	0
Cliatts Lift Station		Lincoln County	200,000.00	2014	0.00	0
City of Lincolnton Water Treatment Plant	2247 McCormick Hwy	Lincolnton city	4,127,094.00	2014	105,936.00	0
Booster Pump Station		Lincolnton city	250,000.00	2018	0.00	0
Beulal VFD Station 10	6526 Elberton Hwy	Lincoln County	120,000.00	2024	360,000.00	0
			79,196,339.00		6,440,454.00	
		360,000.00				
		480,000.00	105,936.00			
		0.00	0.00		6,906,390.00	
		0.00	109,821.00		13,938,052.00	
		0.00	40,431.00		200,000	
		499,135.00	38,757.00		21,044,442.00	
		0.00	2,572.00			
		1,279,446.00	10,000.00			
		0.00	31,549.00			
		608,894.00	339,066.00			
		0.00				
		600,000.00				
		0.00				
		0.00				
		125,272.00				
		108,641.00				
		0.00				

Flood Lincoln County						
Facility Name	Facility Address	Jurisdiction	Facility Value	Facility Value Year	Contents Replacement Value	Flood Hazard Score
		600,000.00				
		0.00				
		240,000.00				
		600,000.00				
		600,000.00				
		6,101,388.00				

List of Dams in Lincoln County													
Dam Name	NID ID	Federal ID	Owner Names	Owner Types	Primary Owner Type	Designer Names	Non-Federal Dam on Federal Property	Primary Purpose	Purposes	Source Agency	State or Federal Agency ID	Latitude	Longitude
Forest Lake Dam	GA00386	GA00386	Forest Lake Estates	Private	Private	UNKNOW N	No	Recreation	Recreation	Georgia	090-006-00924	33.69917	-82.4131
Water Oak Lake Dam	GA04816	GA04816	Sullivan Plantation, Inc.	Private	Private	SCS	No	Irrigation	Irrigation	Georgia	090-003-03885	33.74528	-82.4056
Pasco Fresh Water Lake Dam	GA04817	GA04817	U.S. Dept. of Defense	Federal	Federal	C. E., INC.	No	Other	Other	Georgia	090-002-01199	33.73278	-82.5208
Paige Pond Dam	GA00361	GA00361	Paige Peter G.	Private	Private		No			Georgia	090-005-05549	33.72028	-82.4836

List of Dams in Lincoln County													
Ward Pond Dam	GA00376	GA00376	Ward, Gary	Private	Private	NRCS	No			Georgia	090-004- 05530	33.73899	-82.2998



Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
1/4/2000	0	100	100	0	0
1/11/2000	0	100	100	0	0
1/18/2000	0	100	100	0	0
1/25/2000	0	100	100	0	0
2/1/2000	0	100	100	0	0
2/8/2000	0	100	100	0	0
2/15/2000	0	100	100	0	0
2/22/2000	0	100	100	0	0
2/29/2000	0	100	100	0	0
3/7/2000	0	100	100	0	0
3/14/2000	0	100	100	0	0
3/21/2000	0	100	100	0	0
3/28/2000	0	100	100	0	0
4/4/2000	0	100	100	0	0
4/11/2000	0	100	100	0	0
4/18/2000	0	100	100	0	0
4/25/2000	0	100	100	0	0
5/2/2000	0	100	100	0	0
5/9/2000	0	100	100	0	0
5/16/2000	0	100	100	100	0
5/23/2000	0	100	100	100	0
5/30/2000	0	100	100	100	42.49
6/6/2000	0	100	100	100	75.17
6/13/2000	0	100	100	100	100
6/20/2000	0	100	100	100	100
6/27/2000	0	100	100	100	100
7/4/2000	0	100	100	100	100
7/11/2000	0	100	100	100	100
7/18/2000	0	100	100	100	100
7/25/2000	0	100	100	100	100
8/1/2000	0	100	100	100	100
8/8/2000	0	100	100	100	100
8/15/2000	0	100	100	100	100
8/22/2000	0	100	100	100	100
8/29/2000	0	100	100	100	100
9/5/2000	0	100	100	100	100
9/12/2000	0	100	100	100	100
9/19/2000	0	100	100	100	100
9/26/2000	0	100	100	100	0
10/3/2000	0	100	100	100	0
10/10/2000	0	100	100	100	0
10/17/2000	0	100	100	100	0
10/24/2000	0	100	100	100	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
10/31/2000	0	100	100	100	97.66
11/7/2000	0	100	100	100	97.66
11/14/2000	0	100	100	100	98.05
11/21/2000	0	100	100	100	0
11/28/2000	0	100	100	100	0
12/5/2000	0	100	100	100	0
12/12/2000	0	100	100	100	0
12/19/2000	0	100	100	0	0
12/26/2000	0	100	100	0	0
1/2/2001	0	100	100	73.11	0
1/9/2001	0	100	100	55.92	0
1/16/2001	0	100	100	55.92	0
1/23/2001	0	100	100	99.8	0
1/30/2001	0	100	100	99.8	0
2/6/2001	0	100	100	99.8	0
2/13/2001	0	100	100	99.8	0
2/20/2001	0	100	100	100	0
2/27/2001	0	100	100	100	0
3/6/2001	0	100	100	100	0
3/13/2001	0	100	100	95.55	0
3/20/2001	0	100	100	90.35	0
3/27/2001	0	100	100	90.35	0
4/3/2001	0	100	100	0	0
4/10/2001	0	100	100	0	0
4/17/2001	0	100	100	0	0
4/24/2001	0	100	100	0	0
5/1/2001	0	100	100	0	0
5/8/2001	0	100	100	99.8	0
5/15/2001	0	100	100	100	0
5/22/2001	0	100	100	100	0
5/29/2001	0	100	100	100	0
6/5/2001	0	100	100	100	0
6/12/2001	0	100	100	100	0
6/19/2001	0	100	88.2	0	0
6/26/2001	0	100	88.2	0	0
7/3/2001	0	100	0	0	0
7/10/2001	0	100	0	0	0
7/17/2001	0	100	0	0	0
7/24/2001	0	100	0	0	0
7/31/2001	0	100	0	0	0
8/7/2001	0	100	0	0	0
8/14/2001	0	100	0	0	0
8/21/2001	0	100	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
8/28/2001	0	100	0	0	0
9/4/2001	0	100	0	0	0
9/11/2001	0	100	0	0	0
9/18/2001	0	100	0	0	0
9/25/2001	0	100	0	0	0
10/2/2001	0	100	100	0	0
10/9/2001	0	100	100	0	0
10/16/2001	0	100	100	0	0
10/23/2001	0	100	100	0	0
10/30/2001	0	100	100	100	0
11/6/2001	0	100	100	100	0
11/13/2001	0	100	100	100	0
11/20/2001	0	100	100	100	0
11/27/2001	0	100	100	100	0
12/4/2001	0	100	100	100	0
12/11/2001	0	100	100	100	0
12/18/2001	0	100	100	100	100
12/25/2001	0	100	100	100	100
1/1/2002	0	100	100	100	100
1/8/2002	0	100	100	100	100
1/15/2002	0	100	100	100	100
1/22/2002	0	100	100	100	100
1/29/2002	0	100	100	100	100
2/5/2002	0	100	100	100	100
2/12/2002	0	100	100	100	100
2/19/2002	0	100	100	100	100
2/26/2002	0	100	100	100	100
3/5/2002	0	100	100	100	100
3/12/2002	0	100	100	100	100
3/19/2002	0	100	100	100	100
3/26/2002	0	100	100	100	100
4/2/2002	0	100	100	100	63.2
4/9/2002	0	100	100	100	48.93
4/16/2002	0	100	100	100	0
4/23/2002	0	100	100	100	0
4/30/2002	0	100	100	100	100
5/7/2002	0	100	100	100	47.95
5/14/2002	0	100	100	100	85.68
5/21/2002	0	100	100	100	20.81
5/28/2002	0	100	100	100	0
6/4/2002	0	100	100	100	0
6/11/2002	0	100	100	100	0
6/18/2002	0	100	100	100	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
6/25/2002	0	100	100	100	0.14
7/2/2002	0	100	100	100	0
7/9/2002	0	100	100	100	0
7/16/2002	0	100	100	100	0.19
7/23/2002	0	100	100	100	100
7/30/2002	0	100	100	100	100
8/6/2002	0	100	100	100	100
8/13/2002	0	100	100	100	100
8/20/2002	0	100	100	100	100
8/27/2002	0	100	100	100	100
9/3/2002	0	100	100	100	100
9/10/2002	0	100	100	100	100
9/17/2002	0	100	100	100	100
9/24/2002	0	100	100	100	0
10/1/2002	0	100	100	100	0
10/8/2002	0	100	100	100	0
10/15/2002	0	100	100	100	0
10/22/2002	0	100	100	100	0
10/29/2002	0	100	100	100	0
11/5/2002	0	100	100	100	0
11/12/2002	0	100	100	0	0
11/19/2002	0	100	100	0	0
11/26/2002	0	100	100	0	0
12/3/2002	0	100	100	0	0
12/10/2002	0	100	100	0	0
12/17/2002	0	100	0	0	0
12/24/2002	0	100	0	0	0
12/31/2002	100	0	0	0	0
1/7/2003	99.72	0.28	0	0	0
1/14/2003	100	0	0	0	0
1/21/2003	99.97	0.03	0	0	0
1/28/2003	95.38	4.62	0	0	0
2/4/2003	76.71	23.29	0	0	0
2/11/2003	81.29	18.71	0	0	0
2/18/2003	82.33	17.67	0	0	0
2/25/2003	79.9	20.1	0	0	0
3/4/2003	75.64	24.36	0	0	0
3/11/2003	100	0	0	0	0
3/18/2003	100	0	0	0	0
3/25/2003	100	0	0	0	0
4/1/2003	100	0	0	0	0
4/8/2003	100	0	0	0	0
4/15/2003	100	0	0	0	0

Drought Lincoln County

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

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
2/17/2004	100	0	0	0	0
2/24/2004	100	0	0	0	0
3/2/2004	100	0	0	0	0
3/9/2004	100	0	0	0	0
3/16/2004	100	0	0	0	0
3/23/2004	0	100	0	0	0
3/30/2004	0	100	0	0	0
4/6/2004	0	100	0	0	0
4/13/2004	0	100	0	0	0
4/20/2004	0	100	100	0	0
4/27/2004	0	100	100	0	0
5/4/2004	0	100	99.87	0	0
5/11/2004	0	100	100	0	0
5/18/2004	0	100	100	0	0
5/25/2004	0	100	100	100	0
6/1/2004	0	100	100	100	0
6/8/2004	0	100	100	100	0
6/15/2004	0	100	100	100	0
6/22/2004	0	100	100	99.44	0
6/29/2004	0	100	100	0	0
7/6/2004	0	100	0	0	0
7/13/2004	0	100	0	0	0
7/20/2004	0	100	0	0	0
7/27/2004	0	100	0	0	0
8/3/2004	0	100	0	0	0
8/10/2004	0	100	0	0	0
8/17/2004	100	0	0	0	0
8/24/2004	7.42	92.58	0	0	0
8/31/2004	100	0	0	0	0
9/7/2004	100	0	0	0	0
9/14/2004	100	0	0	0	0
9/21/2004	100	0	0	0	0
9/28/2004	100	0	0	0	0
10/5/2004	100	0	0	0	0
10/12/2004	100	0	0	0	0
10/19/2004	100	0	0	0	0
10/26/2004	100	0	0	0	0
11/2/2004	100	0	0	0	0
11/9/2004	100	0	0	0	0
11/16/2004	100	0	0	0	0
11/23/2004	100	0	0	0	0
11/30/2004	100	0	0	0	0
12/7/2004	100	0	0	0	0

Drought Lincoln County

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

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
10/11/2005	100	0	0	0	0
10/18/2005	100	0	0	0	0
10/25/2005	100	0	0	0	0
11/1/2005	100	0	0	0	0
11/8/2005	100	0	0	0	0
11/15/2005	0	100	0	0	0
11/22/2005	0	100	0	0	0
11/29/2005	100	0	0	0	0
12/6/2005	100	0	0	0	0
12/13/2005	100	0	0	0	0
12/20/2005	100	0	0	0	0
12/27/2005	100	0	0	0	0
1/3/2006	100	0	0	0	0
1/10/2006	100	0	0	0	0
1/17/2006	100	0	0	0	0
1/24/2006	100	0	0	0	0
1/31/2006	100	0	0	0	0
2/7/2006	100	0	0	0	0
2/14/2006	100	0	0	0	0
2/21/2006	100	0	0	0	0
2/28/2006	100	0	0	0	0
3/7/2006	100	0	0	0	0
3/14/2006	100	0	0	0	0
3/21/2006	100	0	0	0	0
3/28/2006	100	0	0	0	0
4/4/2006	0	100	0	0	0
4/11/2006	0	100	0	0	0
4/18/2006	0	100	0.55	0	0
4/25/2006	0	100	0.55	0	0
5/2/2006	0	100	0.55	0	0
5/9/2006	0	100	0.55	0	0
5/16/2006	0	100	99.68	0	0
5/23/2006	0	100	99.68	0	0
5/30/2006	0	100	99.68	0	0
6/6/2006	0	100	100	0	0
6/13/2006	0	100	100	0	0
6/20/2006	0	100	44.08	0	0
6/27/2006	0	100	19.75	0	0
7/4/2006	0	100	19.61	0	0
7/11/2006	0	100	7.36	0	0
7/18/2006	0	100	57.16	0	0
7/25/2006	0	100	100	0	0
8/1/2006	0	100	100	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
8/8/2006	0	100	100	0	0
8/15/2006	0	100	100	0	0
8/22/2006	0	100	100	0	0
8/29/2006	0	100	81.77	0	0
9/5/2006	0	100	81.77	0	0
9/12/2006	0	100	69.43	0	0
9/19/2006	0	100	0	0	0
9/26/2006	0	100	0	0	0
10/3/2006	0	100	100	0	0
10/10/2006	0	100	100	0	0
10/17/2006	0	100	100	0	0
10/24/2006	0	100	100	0	0
10/31/2006	0	100	0	0	0
11/7/2006	0	100	0	0	0
11/14/2006	0	100	88.4	0	0
11/21/2006	0	100	0	0	0
11/28/2006	100	0	0	0	0
12/5/2006	100	0	0	0	0
12/12/2006	100	0	0	0	0
12/19/2006	100	0	0	0	0
12/26/2006	100	0	0	0	0
1/2/2007	100	0	0	0	0
1/9/2007	100	0	0	0	0
1/16/2007	100	0	0	0	0
1/23/2007	100	0	0	0	0
1/30/2007	100	0	0	0	0
2/6/2007	100	0	0	0	0
2/13/2007	100	0	0	0	0
2/20/2007	0	100	0	0	0
2/27/2007	0	100	0	0	0
3/6/2007	100	0	0	0	0
3/13/2007	61.54	38.46	0	0	0
3/20/2007	56.27	43.73	0	0	0
3/27/2007	0	100	0	0	0
4/3/2007	0	100	0	0	0
4/10/2007	0	100	0	0	0
4/17/2007	0	100	0	0	0
4/24/2007	0	100	100	0	0
5/1/2007	0	100	100	0	0
5/8/2007	0	100	100	0	0
5/15/2007	0	100	100	0	0
5/22/2007	0	100	100	0	0
5/29/2007	0	100	100	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
6/5/2007	0	100	77.64	0	0
6/12/2007	0	100	77.64	0	0
6/19/2007	0	100	77.64	0	0
6/26/2007	0	100	77.64	0	0
7/3/2007	0	100	76.64	0	0
7/10/2007	0	100	76.64	0	0
7/17/2007	0	100	76.64	0	0
7/24/2007	0	100	76.64	0	0
7/31/2007	0	100	76.64	0	0
8/7/2007	0	100	100	82.98	0
8/14/2007	0	100	100	100	0
8/21/2007	0	100	100	100	98.23
8/28/2007	0	100	100	100	95.83
9/4/2007	0	100	100	100	0
9/11/2007	0	100	100	100	88.52
9/18/2007	0	100	100	100	55.65
9/25/2007	0	100	100	100	55.65
10/2/2007	0	100	100	100	55.65
10/9/2007	0	100	100	100	100
10/16/2007	0	100	100	100	100
10/23/2007	0	100	100	100	100
10/30/2007	0	100	100	100	100
11/6/2007	0	100	100	100	100
11/13/2007	0	100	100	100	100
11/20/2007	0	100	100	100	100
11/27/2007	0	100	100	100	100
12/4/2007	0	100	100	100	100
12/11/2007	0	100	100	100	100
12/18/2007	0	100	100	100	100
12/25/2007	0	100	100	100	100
1/1/2008	0	100	100	100	100
1/8/2008	0	100	100	100	100
1/15/2008	0	100	100	100	100
1/22/2008	0	100	100	100	100
1/29/2008	0	100	100	100	100
2/5/2008	0	100	100	100	100
2/12/2008	0	100	100	100	100
2/19/2008	0	100	100	100	100
2/26/2008	0	100	100	100	0.06
3/4/2008	0	100	100	100	0.06
3/11/2008	0	100	100	88.13	0.06
3/18/2008	0	100	100	88.13	0.06
3/25/2008	0	100	100	88.13	0.06

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
4/1/2008	0	100	100	88.13	0.06
4/8/2008	0	100	100	88.13	0
4/15/2008	0	100	100	88.13	0
4/22/2008	0	100	100	88.13	0
4/29/2008	0	100	100	88.13	0
5/6/2008	0	100	100	88.13	0
5/13/2008	0	100	100	88.13	0
5/20/2008	0	100	100	88.13	0
5/27/2008	0	100	100	59.85	0.01
6/3/2008	0	100	100	59.85	0.01
6/10/2008	0	100	100	97.19	19.4
6/17/2008	0	100	100	100	44.61
6/24/2008	0	100	100	100	54.98
7/1/2008	0	100	100	100	100
7/8/2008	0	100	100	100	100
7/15/2008	0	100	100	100	100
7/22/2008	0	100	100	100	100
7/29/2008	0	100	100	100	100
8/5/2008	0	100	100	100	100
8/12/2008	0	100	100	100	100
8/19/2008	0	100	100	100	100
8/26/2008	0	100	100	100	100
9/2/2008	0	100	100	100	100
9/9/2008	0	100	100	100	100
9/16/2008	0	100	100	100	100
9/23/2008	0	100	100	100	100
9/30/2008	0	100	100	100	100
10/7/2008	0	100	100	100	100
10/14/2008	0	100	100	100	100
10/21/2008	0	100	100	100	100
10/28/2008	0	100	100	100	100
11/4/2008	0	100	100	100	100
11/11/2008	0	100	100	100	100
11/18/2008	0	100	100	100	100
11/25/2008	0	100	100	100	100
12/2/2008	0	100	100	100	100
12/9/2008	0	100	100	100	100
12/16/2008	0	100	100	29.32	4.8
12/23/2008	0	100	100	29.32	4.8
12/30/2008	0	100	100	29.32	4.8
1/6/2009	0	100	100	29.32	4.8
1/13/2009	0	100	44.95	1.75	0
1/20/2009	0	100	44.95	8.18	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
1/27/2009	0	100	44.95	8.18	0
2/3/2009	0	100	44.95	8.18	0
2/10/2009	0	100	75	8.18	0
2/17/2009	0	100	99.86	23.43	0
2/24/2009	0	100	100	23.43	0
3/3/2009	0	100	30.66	4.86	0
3/10/2009	0	100	30.66	4.86	0
3/17/2009	0	100	30.66	4.86	0
3/24/2009	0	100	30.66	4.86	0
3/31/2009	0	100	0	0	0
4/7/2009	26.29	73.71	0	0	0
4/14/2009	98.86	1.14	0	0	0
4/21/2009	98.86	1.14	0	0	0
4/28/2009	98.86	1.14	0	0	0
5/5/2009	98.86	1.14	0	0	0
5/12/2009	100	0	0	0	0
5/19/2009	100	0	0	0	0
5/26/2009	100	0	0	0	0
6/2/2009	100	0	0	0	0
6/9/2009	100	0	0	0	0
6/16/2009	100	0	0	0	0
6/23/2009	100	0	0	0	0
6/30/2009	100	0	0	0	0
7/7/2009	0	100	0	0	0
7/14/2009	0	100	0	0	0
7/21/2009	0	100	0	0	0
7/28/2009	0	100	0	0	0
8/4/2009	0	100	0	0	0
8/11/2009	0	100	0	0	0
8/18/2009	0	100	0	0	0
8/25/2009	0	100	0	0	0
9/1/2009	0	100	0	0	0
9/8/2009	0	100	0	0	0
9/15/2009	0	100	0	0	0
9/22/2009	100	0	0	0	0
9/29/2009	100	0	0	0	0
10/6/2009	100	0	0	0	0
10/13/2009	100	0	0	0	0
10/20/2009	100	0	0	0	0
10/27/2009	100	0	0	0	0
11/3/2009	100	0	0	0	0
11/10/2009	100	0	0	0	0
11/17/2009	100	0	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
11/24/2009	100	0	0	0	0
12/1/2009	100	0	0	0	0
12/8/2009	100	0	0	0	0
12/15/2009	100	0	0	0	0
12/22/2009	100	0	0	0	0
12/29/2009	100	0	0	0	0
1/5/2010	100	0	0	0	0
1/12/2010	100	0	0	0	0
1/19/2010	100	0	0	0	0
1/26/2010	100	0	0	0	0
2/2/2010	100	0	0	0	0
2/9/2010	100	0	0	0	0
2/16/2010	100	0	0	0	0
2/23/2010	100	0	0	0	0
3/2/2010	100	0	0	0	0
3/9/2010	100	0	0	0	0
3/16/2010	100	0	0	0	0
3/23/2010	100	0	0	0	0
3/30/2010	100	0	0	0	0
4/6/2010	100	0	0	0	0
4/13/2010	100	0	0	0	0
4/20/2010	100	0	0	0	0
4/27/2010	100	0	0	0	0
5/4/2010	100	0	0	0	0
5/11/2010	100	0	0	0	0
5/18/2010	100	0	0	0	0
5/25/2010	100	0	0	0	0
6/1/2010	100	0	0	0	0
6/8/2010	100	0	0	0	0
6/15/2010	100	0	0	0	0
6/22/2010	100	0	0	0	0
6/29/2010	99.1	0.9	0	0	0
7/6/2010	100	0	0	0	0
7/13/2010	7.31	92.69	0	0	0
7/20/2010	0	100	0	0	0
7/27/2010	0	100	0	0	0
8/3/2010	0	100	0	0	0
8/10/2010	0	100	0	0	0
8/17/2010	0	100	0	0	0
8/24/2010	98.39	1.61	0	0	0
8/31/2010	98.39	1.61	0	0	0
9/7/2010	33.18	66.82	0	0	0
9/14/2010	0	100	77.43	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
9/21/2010	0	100	100	0	0
9/28/2010	0	100	15.17	0	0
10/5/2010	0	100	15.17	0	0
10/12/2010	0	100	15.17	0	0
10/19/2010	0	100	62.23	0	0
10/26/2010	0	100	62.23	0	0
11/2/2010	0	100	61.46	0	0
11/9/2010	0	100	59.97	0	0
11/16/2010	0	100	59.97	0	0
11/23/2010	0	100	87.72	0	0
11/30/2010	0	100	87.72	0	0
12/7/2010	0	100	99.81	0	0
12/14/2010	0	100	99.81	0	0
12/21/2010	0	100	99.81	0	0
12/28/2010	0	100	99.81	0	0
1/4/2011	0	100	99.92	0	0
1/11/2011	0	100	99.92	0	0
1/18/2011	0	100	100	0	0
1/25/2011	0	100	100	0	0
2/1/2011	0	100	100	0	0
2/8/2011	0	100	99.5	0	0
2/15/2011	0	100	99.5	0	0
2/22/2011	0	100	99.5	0	0
3/1/2011	0	100	99.92	0	0
3/8/2011	0	100	99.92	0	0
3/15/2011	0	100	99.92	0	0
3/22/2011	0	100	99.92	0	0
3/29/2011	0	100	0	0	0
4/5/2011	36.52	63.48	0	0	0
4/12/2011	44.94	55.06	0	0	0
4/19/2011	44.94	55.06	0	0	0
4/26/2011	44.94	55.06	0	0	0
5/3/2011	44.94	55.06	0	0	0
5/10/2011	0	100	0	0	0
5/17/2011	0	100	79.12	0	0
5/24/2011	0	100	78.01	0	0
5/31/2011	0	100	100	70.93	0
6/7/2011	0	100	100	70.93	0
6/14/2011	0	100	100	74.48	0
6/21/2011	0	100	100	99.94	71.27
6/28/2011	0	100	100	99.94	71.27
7/5/2011	0	100	100	99.94	71.27
7/12/2011	0	100	100	99.94	71.27

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
7/19/2011	0	100	100	99.94	71.27
7/26/2011	0	100	100	100	71.27
8/2/2011	0	100	100	100	71.27
8/9/2011	0	100	100	100	0
8/16/2011	0	100	100	100	0
8/23/2011	0	100	100	100	0
8/30/2011	0	100	100	100	100
9/6/2011	0	100	100	100	100
9/13/2011	0	100	100	100	100
9/20/2011	0	100	100	100	100
9/27/2011	0	100	100	100	100
10/4/2011	0	100	100	100	100
10/11/2011	0	100	100	100	100
10/18/2011	0	100	100	100	100
10/25/2011	0	100	100	100	100
11/1/2011	0	100	100	100	100
11/8/2011	0	100	100	100	100
11/15/2011	0	100	100	100	100
11/22/2011	0	100	100	100	100
11/29/2011	0	100	100	100	100
12/6/2011	0	100	100	100	100
12/13/2011	0	100	100	100	100
12/20/2011	0	100	100	100	100
12/27/2011	0	100	100	100	100
1/3/2012	0	100	100	100	100
1/10/2012	0	100	100	100	100
1/17/2012	0	100	100	100	100
1/24/2012	0	100	100	100	99.17
1/31/2012	0	100	100	100	99.17
2/7/2012	0	100	100	100	99.17
2/14/2012	0	100	100	100	99.17
2/21/2012	0	100	100	100	99.17
2/28/2012	0	100	100	100	99.17
3/6/2012	0	100	100	100	99.17
3/13/2012	0	100	100	100	99.17
3/20/2012	0	100	100	100	99.17
3/27/2012	0	100	100	100	99.17
4/3/2012	0	100	100	100	99.17
4/10/2012	0	100	100	100	98.23
4/17/2012	0	100	100	100	100
4/24/2012	0	100	100	100	100
5/1/2012	0	100	100	100	100
5/8/2012	0	100	100	100	100

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
5/15/2012	0	100	100	100	100
5/22/2012	0	100	100	100	100
5/29/2012	0	100	100	100	100
6/5/2012	0	100	100	100	100
6/12/2012	0	100	100	100	100
6/19/2012	0	100	100	100	100
6/26/2012	0	100	100	100	100
7/3/2012	0	100	100	100	100
7/10/2012	0	100	100	100	100
7/17/2012	0	100	100	100	100
7/24/2012	0	100	100	100	100
7/31/2012	0	100	100	100	100
8/7/2012	0	100	100	100	100
8/14/2012	0	100	100	100	100
8/21/2012	0	100	100	100	100
8/28/2012	0	100	100	100	0
9/4/2012	0	100	100	52.61	0
9/11/2012	0	100	100	52.61	0
9/18/2012	0	100	100	52.61	0
9/25/2012	0	100	100	52.61	0
10/2/2012	0	100	100	50.31	0
10/9/2012	0	100	100	50.31	0
10/16/2012	0	100	100	50.31	0
10/23/2012	0	100	100	50.31	0
10/30/2012	0	100	100	98.96	0
11/6/2012	0	100	100	99.28	93.47
11/13/2012	0	100	100	100	93.47
11/20/2012	0	100	100	100	93.47
11/27/2012	0	100	100	100	96.43
12/4/2012	0	100	100	100	100
12/11/2012	0	100	100	100	100
12/18/2012	0	100	100	100	100
12/25/2012	0	100	100	100	100
1/1/2013	0	100	100	100	100
1/8/2013	0	100	100	100	100
1/15/2013	0	100	100	100	100
1/22/2013	0	100	100	100	100
1/29/2013	0	100	100	100	100
2/5/2013	0	100	100	100	100
2/12/2013	0	100	100	100	100
2/19/2013	0	100	100	100	100
2/26/2013	0	100	100	100	0
3/5/2013	0	100	100	100	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
3/12/2013	0	100	100	100	0
3/19/2013	0	100	100	100	0
3/26/2013	0	100	100	0	0
4/2/2013	0	100	100	0	0
4/9/2013	0	100	88.12	0	0
4/16/2013	0	100	0	0	0
4/23/2013	0	100	0	0	0
4/30/2013	100	0	0	0	0
5/7/2013	100	0	0	0	0
5/14/2013	100	0	0	0	0
5/21/2013	100	0	0	0	0
5/28/2013	100	0	0	0	0
6/4/2013	100	0	0	0	0
6/11/2013	100	0	0	0	0
6/18/2013	100	0	0	0	0
6/25/2013	100	0	0	0	0
7/2/2013	100	0	0	0	0
7/9/2013	100	0	0	0	0
7/16/2013	100	0	0	0	0
7/23/2013	100	0	0	0	0
7/30/2013	100	0	0	0	0
8/6/2013	100	0	0	0	0
8/13/2013	100	0	0	0	0
8/20/2013	100	0	0	0	0
8/27/2013	100	0	0	0	0
9/3/2013	100	0	0	0	0
9/10/2013	100	0	0	0	0
9/17/2013	100	0	0	0	0
9/24/2013	100	0	0	0	0
10/1/2013	100	0	0	0	0
10/8/2013	100	0	0	0	0
10/15/2013	100	0	0	0	0
10/22/2013	0	100	0	0	0
10/29/2013	0	100	0	0	0
11/5/2013	0	100	0	0	0
11/12/2013	0	100	0	0	0
11/19/2013	0	100	0	0	0
11/26/2013	0	100	0	0	0
12/3/2013	0	100	0	0	0
12/10/2013	0	100	0	0	0
12/17/2013	0	100	0	0	0
12/24/2013	100	0	0	0	0
12/31/2013	100	0	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
1/7/2014	100	0	0	0	0
1/14/2014	100	0	0	0	0
1/21/2014	100	0	0	0	0
1/28/2014	100	0	0	0	0
2/4/2014	100	0	0	0	0
2/11/2014	100	0	0	0	0
2/18/2014	100	0	0	0	0
2/25/2014	100	0	0	0	0
3/4/2014	100	0	0	0	0
3/11/2014	100	0	0	0	0
3/18/2014	100	0	0	0	0
3/25/2014	100	0	0	0	0
4/1/2014	100	0	0	0	0
4/8/2014	100	0	0	0	0
4/15/2014	100	0	0	0	0
4/22/2014	100	0	0	0	0
4/29/2014	100	0	0	0	0
5/6/2014	100	0	0	0	0
5/13/2014	100	0	0	0	0
5/20/2014	100	0	0	0	0
5/27/2014	100	0	0	0	0
6/3/2014	100	0	0	0	0
6/10/2014	100	0	0	0	0
6/17/2014	100	0	0	0	0
6/24/2014	39.36	60.64	0	0	0
7/1/2014	1.72	98.28	0	0	0
7/8/2014	1.72	98.28	0	0	0
7/15/2014	0	100	0	0	0
7/22/2014	0	100	0	0	0
7/29/2014	0	100	0	0	0
8/5/2014	0	100	0	0	0
8/12/2014	78.89	21.11	0	0	0
8/19/2014	78.89	21.11	0	0	0
8/26/2014	73.62	26.38	0	0	0
9/2/2014	65.43	34.57	0	0	0
9/9/2014	65.43	34.57	0	0	0
9/16/2014	65.43	34.57	0	0	0
9/23/2014	65.43	34.57	0	0	0
9/30/2014	65.43	34.57	0	0	0
10/7/2014	64.34	35.66	0	0	0
10/14/2014	64.34	35.66	0	0	0
10/21/2014	64.34	35.66	0	0	0
10/28/2014	0	100	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
11/4/2014	0	100	0	0	0
11/11/2014	0	100	0	0	0
11/18/2014	0	100	0	0	0
11/25/2014	0	100	0	0	0
12/2/2014	0	100	0	0	0
12/9/2014	0	100	0	0	0
12/16/2014	0	100	0	0	0
12/23/2014	0	100	0	0	0
12/30/2014	100	0	0	0	0
1/6/2015	100	0	0	0	0
1/13/2015	100	0	0	0	0
1/20/2015	100	0	0	0	0
1/27/2015	100	0	0	0	0
2/3/2015	100	0	0	0	0
2/10/2015	100	0	0	0	0
2/17/2015	100	0	0	0	0
2/24/2015	100	0	0	0	0
3/3/2015	100	0	0	0	0
3/10/2015	100	0	0	0	0
3/17/2015	100	0	0	0	0
3/24/2015	100	0	0	0	0
3/31/2015	100	0	0	0	0
4/7/2015	100	0	0	0	0
4/14/2015	100	0	0	0	0
4/21/2015	100	0	0	0	0
4/28/2015	100	0	0	0	0
5/5/2015	100	0	0	0	0
5/12/2015	100	0	0	0	0
5/19/2015	100	0	0	0	0
5/26/2015	100	0	0	0	0
6/2/2015	100	0	0	0	0
6/9/2015	100	0	0	0	0
6/16/2015	100	0	0	0	0
6/23/2015	100	0	0	0	0
6/30/2015	100	0	0	0	0
7/7/2015	100	0	0	0	0
7/14/2015	100	0	0	0	0
7/21/2015	100	0	0	0	0
7/28/2015	100	0	0	0	0
8/4/2015	97.96	2.04	0	0	0
8/11/2015	97.96	2.04	0	0	0
8/18/2015	97.96	2.04	0	0	0
8/25/2015	95.36	4.64	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
9/1/2015	95.35	4.65	0	0	0
9/8/2015	95.35	4.65	0	0	0
9/15/2015	97.51	2.49	0	0	0
9/22/2015	97.51	2.49	0	0	0
9/29/2015	100	0	0	0	0
10/6/2015	100	0	0	0	0
10/13/2015	100	0	0	0	0
10/20/2015	100	0	0	0	0
10/27/2015	100	0	0	0	0
11/3/2015	100	0	0	0	0
11/10/2015	100	0	0	0	0
11/17/2015	100	0	0	0	0
11/24/2015	100	0	0	0	0
12/1/2015	100	0	0	0	0
12/8/2015	100	0	0	0	0
12/15/2015	100	0	0	0	0
12/22/2015	100	0	0	0	0
12/29/2015	100	0	0	0	0
1/5/2016	100	0	0	0	0
1/12/2016	100	0	0	0	0
1/19/2016	100	0	0	0	0
1/26/2016	100	0	0	0	0
2/2/2016	100	0	0	0	0
2/9/2016	100	0	0	0	0
2/16/2016	100	0	0	0	0
2/23/2016	100	0	0	0	0
3/1/2016	100	0	0	0	0
3/8/2016	100	0	0	0	0
3/15/2016	0	100	0	0	0
3/22/2016	0	100	0	0	0
3/29/2016	0	100	0	0	0
4/5/2016	35.94	64.06	0	0	0
4/12/2016	35.94	64.06	0	0	0
4/19/2016	35.94	64.06	0	0	0
4/26/2016	35.94	64.06	0	0	0
5/3/2016	0.97	99.03	0	0	0
5/10/2016	1.69	98.31	37.11	0	0
5/17/2016	0	100	37.11	0	0
5/24/2016	0	100	37.11	0	0
5/31/2016	0	100	37.11	0	0
6/7/2016	0	100	37.11	0	0
6/14/2016	0	100	37.11	0	0
6/21/2016	0	100	44.23	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
6/28/2016	0	100	44.23	0	0
7/5/2016	0	100	45.11	0	0
7/12/2016	0	100	45.62	0	0
7/19/2016	0	100	67.97	36.53	0
7/26/2016	0	100	66.42	34.25	0
8/2/2016	0	100	100	54.05	0
8/9/2016	0	100	100	54.05	0
8/16/2016	0	100	100	54.05	0
8/23/2016	0	100	100	54.05	0
8/30/2016	0	100	100	54.05	0
9/6/2016	0	100	73.58	40.62	0
9/13/2016	0	100	73.58	40.62	0
9/20/2016	0	100	73.58	40.62	0
9/27/2016	0	100	73.58	40.62	0
10/4/2016	0	100	74.18	50.55	0
10/11/2016	0	100	100	74.1	50.72
10/18/2016	0	100	100	82.79	50.72
10/25/2016	0	100	100	82.79	50.72
11/1/2016	0	100	100	82.79	50.72
11/8/2016	0	100	100	82.79	50.72
11/15/2016	0	100	100	99.92	74.34
11/22/2016	0	100	100	100	74.73
11/29/2016	0	100	100	100	90.39
12/6/2016	0	100	100	100	90.96
12/13/2016	0	100	100	100	90.96
12/20/2016	0	100	100	100	90.96
12/27/2016	0	100	100	100	90.96
1/3/2017	0	100	100	57.54	0
1/10/2017	0	100	100	46.77	0
1/17/2017	0	100	100	46.77	0
1/24/2017	0	100	62.87	0	0
1/31/2017	0	100	62.87	0	0
2/7/2017	0	100	62.87	0	0
2/14/2017	0	100	62.87	0	0
2/21/2017	0	100	62.87	0	0
2/28/2017	0	100	62.87	0	0
3/7/2017	0	100	62.87	0	0
3/14/2017	0	100	62.87	0	0
3/21/2017	0	100	100	0	0
3/28/2017	0	100	100	0	0
4/4/2017	0	100	100	0	0
4/11/2017	0	100	0	0	0
4/18/2017	0	100	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
4/25/2017	0	100	0	0	0
5/2/2017	0	100	0	0	0
5/9/2017	0	100	0	0	0
5/16/2017	0	100	0	0	0
5/23/2017	2.01	97.99	0	0	0
5/30/2017	89.03	10.97	0	0	0
6/6/2017	100	0	0	0	0
6/13/2017	100	0	0	0	0
6/20/2017	100	0	0	0	0
6/27/2017	87.68	12.32	0	0	0
7/4/2017	100	0	0	0	0
7/11/2017	100	0	0	0	0
7/18/2017	100	0	0	0	0
7/25/2017	100	0	0	0	0
8/1/2017	100	0	0	0	0
8/8/2017	100	0	0	0	0
8/15/2017	100	0	0	0	0
8/22/2017	100	0	0	0	0
8/29/2017	14.97	85.03	0	0	0
9/5/2017	1.47	98.53	0	0	0
9/12/2017	100	0	0	0	0
9/19/2017	100	0	0	0	0
9/26/2017	100	0	0	0	0
10/3/2017	100	0	0	0	0
10/10/2017	100	0	0	0	0
10/17/2017	0	100	0	0	0
10/24/2017	5.16	94.84	0	0	0
10/31/2017	5.16	94.84	0	0	0
11/7/2017	5.16	94.84	0	0	0
11/14/2017	0	100	69.95	0	0
11/21/2017	0	100	69.95	0	0
11/28/2017	0	100	70.08	0	0
12/5/2017	0	100	70.4	0	0
12/12/2017	0	100	70.4	0	0
12/19/2017	0	100	70.4	0	0
12/26/2017	4.8	95.2	0	0	0
1/2/2018	3.8	96.2	0	0	0
1/9/2018	0	100	0	0	0
1/16/2018	0	100	0	0	0
1/23/2018	0	100	0	0	0
1/30/2018	0	100	0	0	0
2/6/2018	0	100	0	0	0
2/13/2018	100	0	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
2/20/2018	100	0	0	0	0
2/27/2018	100	0	0	0	0
3/6/2018	1.55	98.45	0	0	0
3/13/2018	1.55	98.45	3.84	0	0
3/20/2018	1.55	98.45	0	0	0
3/27/2018	1.55	98.45	0	0	0
4/3/2018	1.55	98.45	0	0	0
4/10/2018	0	100	57.09	0	0
4/17/2018	0	100	46.48	0	0
4/24/2018	1.2	98.8	0	0	0
5/1/2018	1.2	98.8	0	0	0
5/8/2018	0	100	79.09	0	0
5/15/2018	0	100	79.09	0	0
5/22/2018	18.6	81.4	0	0	0
5/29/2018	100	0	0	0	0
6/5/2018	100	0	0	0	0
6/12/2018	100	0	0	0	0
6/19/2018	100	0	0	0	0
6/26/2018	100	0	0	0	0
7/3/2018	100	0	0	0	0
7/10/2018	100	0	0	0	0
7/17/2018	100	0	0	0	0
7/24/2018	100	0	0	0	0
7/31/2018	100	0	0	0	0
8/7/2018	100	0	0	0	0
8/14/2018	100	0	0	0	0
8/21/2018	100	0	0	0	0
8/28/2018	100	0	0	0	0
9/4/2018	100	0	0	0	0
9/11/2018	100	0	0	0	0
9/18/2018	100	0	0	0	0
9/25/2018	100	0	0	0	0
10/2/2018	53.68	46.32	0	0	0
10/9/2018	53.68	46.32	0	0	0
10/16/2018	55.26	44.74	0	0	0
10/23/2018	55.26	44.74	0	0	0
10/30/2018	100	0	0	0	0
11/6/2018	100	0	0	0	0
11/13/2018	100	0	0	0	0
11/20/2018	100	0	0	0	0
11/27/2018	100	0	0	0	0
12/4/2018	100	0	0	0	0
12/11/2018	100	0	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
12/18/2018	100	0	0	0	0
12/25/2018	100	0	0	0	0
1/1/2019	100	0	0	0	0
1/8/2019	100	0	0	0	0
1/15/2019	100	0	0	0	0
1/22/2019	100	0	0	0	0
1/29/2019	100	0	0	0	0
2/5/2019	100	0	0	0	0
2/12/2019	100	0	0	0	0
2/19/2019	100	0	0	0	0
2/26/2019	100	0	0	0	0
3/5/2019	100	0	0	0	0
3/12/2019	100	0	0	0	0
3/19/2019	100	0	0	0	0
3/26/2019	1.73	98.27	0	0	0
4/2/2019	0	100	0	0	0
4/9/2019	0	100	0	0	0
4/16/2019	0	100	0	0	0
4/23/2019	0	100	0	0	0
4/30/2019	0	100	2.68	0	0
5/7/2019	0	100	2.68	0	0
5/14/2019	0	100	0	0	0
5/21/2019	0	100	1.73	0	0
5/28/2019	0	100	1.73	0	0
6/4/2019	0	100	100	0	0
6/11/2019	0	100	0	0	0
6/18/2019	100	0	0	0	0
6/25/2019	100	0	0	0	0
7/2/2019	100	0	0	0	0
7/9/2019	100	0	0	0	0
7/16/2019	100	0	0	0	0
7/23/2019	100	0	0	0	0
7/30/2019	86.88	13.12	0	0	0
8/6/2019	100	0	0	0	0
8/13/2019	100	0	0	0	0
8/20/2019	99.5	0.5	0	0	0
8/27/2019	100	0	0	0	0
9/3/2019	100	0	0	0	0
9/10/2019	100	0	0	0	0
9/17/2019	100	0	0	0	0
9/24/2019	0	100	0	0	0
10/1/2019	0	100	0	0	0
10/8/2019	0	100	100	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
10/15/2019	0	100	100	84.68	0
10/22/2019	0	100	100	84.63	0
10/29/2019	0	100	100	84.63	0
11/5/2019	0	100	100	0	0
11/12/2019	0	100	100	0	0
11/19/2019	0	100	95.64	0	0
11/26/2019	0	100	95.64	0	0
12/3/2019	0	100	44.72	0	0
12/10/2019	0	100	44.72	0	0
12/17/2019	71.64	28.36	0	0	0
12/24/2019	100	0	0	0	0
12/31/2019	100	0	0	0	0
1/7/2020	100	0	0	0	0
1/14/2020	100	0	0	0	0
1/21/2020	100	0	0	0	0
1/28/2020	100	0	0	0	0
2/4/2020	100	0	0	0	0
2/11/2020	100	0	0	0	0
2/18/2020	100	0	0	0	0
2/25/2020	100	0	0	0	0
3/3/2020	100	0	0	0	0
3/10/2020	100	0	0	0	0
3/17/2020	100	0	0	0	0
3/24/2020	100	0	0	0	0
3/31/2020	100	0	0	0	0
4/7/2020	100	0	0	0	0
4/14/2020	100	0	0	0	0
4/21/2020	100	0	0	0	0
4/28/2020	100	0	0	0	0
5/5/2020	100	0	0	0	0
5/12/2020	100	0	0	0	0
5/19/2020	100	0	0	0	0
5/26/2020	100	0	0	0	0
6/2/2020	100	0	0	0	0
6/9/2020	100	0	0	0	0
6/16/2020	100	0	0	0	0
6/23/2020	100	0	0	0	0
6/30/2020	100	0	0	0	0
7/7/2020	100	0	0	0	0
7/14/2020	100	0	0	0	0
7/21/2020	100	0	0	0	0
7/28/2020	100	0	0	0	0
8/4/2020	100	0	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
8/11/2020	100	0	0	0	0
8/18/2020	100	0	0	0	0
8/25/2020	100	0	0	0	0
9/1/2020	100	0	0	0	0
9/8/2020	100	0	0	0	0
9/15/2020	100	0	0	0	0
9/22/2020	100	0	0	0	0
9/29/2020	100	0	0	0	0
10/6/2020	100	0	0	0	0
10/13/2020	100	0	0	0	0
10/20/2020	100	0	0	0	0
10/27/2020	100	0	0	0	0
11/3/2020	100	0	0	0	0
11/10/2020	100	0	0	0	0
11/17/2020	100	0	0	0	0
11/24/2020	100	0	0	0	0
12/1/2020	100	0	0	0	0
12/8/2020	100	0	0	0	0
12/15/2020	100	0	0	0	0
12/22/2020	100	0	0	0	0
12/29/2020	100	0	0	0	0
1/5/2021	100	0	0	0	0
1/12/2021	100	0	0	0	0
1/19/2021	100	0	0	0	0
1/26/2021	100	0	0	0	0
2/2/2021	100	0	0	0	0
2/9/2021	100	0	0	0	0
2/16/2021	100	0	0	0	0
2/23/2021	100	0	0	0	0
3/2/2021	100	0	0	0	0
3/9/2021	100	0	0	0	0
3/16/2021	100	0	0	0	0
3/23/2021	100	0	0	0	0
3/30/2021	100	0	0	0	0
4/6/2021	100	0	0	0	0
4/13/2021	100	0	0	0	0
4/20/2021	0	100	0	0	0
4/27/2021	0	100	0	0	0
5/4/2021	64.7	35.3	0	0	0
5/11/2021	100	0	0	0	0
5/18/2021	100	0	0	0	0
5/25/2021	100	0	0	0	0
6/1/2021	96.89	3.11	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
6/8/2021	100	0	0	0	0
6/15/2021	100	0	0	0	0
6/22/2021	100	0	0	0	0
6/29/2021	100	0	0	0	0
7/6/2021	100	0	0	0	0
7/13/2021	100	0	0	0	0
7/20/2021	100	0	0	0	0
7/27/2021	100	0	0	0	0
8/3/2021	100	0	0	0	0
8/10/2021	100	0	0	0	0
8/17/2021	100	0	0	0	0
8/24/2021	100	0	0	0	0
8/31/2021	100	0	0	0	0
9/7/2021	100	0	0	0	0
9/14/2021	100	0	0	0	0
9/21/2021	100	0	0	0	0
9/28/2021	100	0	0	0	0
10/5/2021	100	0	0	0	0
10/12/2021	100	0	0	0	0
10/19/2021	100	0	0	0	0
10/26/2021	100	0	0	0	0
11/2/2021	100	0	0	0	0
11/9/2021	100	0	0	0	0
11/16/2021	100	0	0	0	0
11/23/2021	0.3	99.7	0	0	0
11/30/2021	0.3	99.7	0	0	0
12/7/2021	0	100	65.08	0	0
12/14/2021	0	100	50.15	0	0
12/21/2021	44.9	55.1	0	0	0
12/28/2021	44.9	55.1	0	0	0
1/4/2022	100	0	0	0	0
1/11/2022	100	0	0	0	0
1/18/2022	100	0	0	0	0
1/25/2022	100	0	0	0	0
2/1/2022	100	0	0	0	0
2/8/2022	100	0	0	0	0
2/15/2022	100	0	0	0	0
2/22/2022	100	0	0	0	0
3/1/2022	99.24	0.76	0	0	0
3/8/2022	85.34	14.66	0	0	0
3/15/2022	85.34	14.66	0	0	0
3/22/2022	91.94	8.06	0	0	0
3/29/2022	24.79	75.21	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
4/5/2022	24.79	75.21	0	0	0
4/12/2022	98.95	1.05	0	0	0
4/19/2022	99	1	0	0	0
4/26/2022	99	1	0	0	0
5/3/2022	99	1	0	0	0
5/10/2022	99.05	0.95	0	0	0
5/17/2022	34.86	65.14	0	0	0
5/24/2022	100	0	0	0	0
5/31/2022	100	0	0	0	0
6/7/2022	100	0	0	0	0
6/14/2022	21.96	78.04	0	0	0
6/21/2022	0	100	77.99	0	0
6/28/2022	0	100	100	0	0
7/5/2022	0	100	100	0	0
7/12/2022	0	100	0	0	0
7/19/2022	0	100	0	0	0
7/26/2022	72.52	27.48	0	0	0
8/2/2022	82.94	17.06	0	0	0
8/9/2022	82.94	17.06	0	0	0
8/16/2022	100	0	0	0	0
8/23/2022	100	0	0	0	0
8/30/2022	100	0	0	0	0
9/6/2022	100	0	0	0	0
9/13/2022	100	0	0	0	0
9/20/2022	100	0	0	0	0
9/27/2022	11.85	88.15	0	0	0
10/4/2022	13.27	86.73	0	0	0
10/11/2022	0	100	86.7	0	0
10/18/2022	0	100	82.55	0	0
10/25/2022	0	100	83.2	49.88	0
11/1/2022	0	100	83.23	49.88	0
11/8/2022	0	100	100	78.34	0
11/15/2022	0	100	100	78.34	0
11/22/2022	0	100	100	78.34	0
11/29/2022	0	100	100	78.34	0
12/6/2022	0	100	95.18	0	0
12/13/2022	0	100	0	0	0
12/20/2022	100	0	0	0	0
12/27/2022	100	0	0	0	0
1/3/2023	100	0	0	0	0
1/10/2023	100	0	0	0	0
1/17/2023	100	0	0	0	0
1/24/2023	100	0	0	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
1/31/2023	100	0	0	0	0
2/7/2023	100	0	0	0	0
2/14/2023	100	0	0	0	0
2/21/2023	100	0	0	0	0
2/28/2023	100	0	0	0	0
3/7/2023	100	0	0	0	0
3/14/2023	100	0	0	0	0
3/21/2023	100	0	0	0	0
3/28/2023	100	0	0	0	0
4/4/2023	100	0	0	0	0
4/11/2023	100	0	0	0	0
4/18/2023	100	0	0	0	0
4/25/2023	100	0	0	0	0
5/2/2023	100	0	0	0	0
5/9/2023	100	0	0	0	0
5/16/2023	100	0	0	0	0
5/23/2023	100	0	0	0	0
5/30/2023	100	0	0	0	0
6/6/2023	100	0	0	0	0
6/13/2023	100	0	0	0	0
6/20/2023	100	0	0	0	0
6/27/2023	100	0	0	0	0
7/4/2023	100	0	0	0	0
7/11/2023	100	0	0	0	0
7/18/2023	100	0	0	0	0
7/25/2023	100	0	0	0	0
8/1/2023	100	0	0	0	0
8/8/2023	100	0	0	0	0
8/15/2023	100	0	0	0	0
8/22/2023	100	0	0	0	0
8/29/2023	100	0	0	0	0
9/5/2023	100	0	0	0	0
9/12/2023	100	0	0	0	0
9/19/2023	69.03	30.97	0	0	0
9/26/2023	69.03	30.97	0	0	0
10/3/2023	52.24	47.76	12.41	0	0
10/10/2023	0	100	12.41	0	0
10/17/2023	35.44	64.56	18.72	0	0
10/24/2023	55.19	44.81	18.72	0	0
10/31/2023	2.31	97.69	43.42	0	0
11/7/2023	0	100	46.21	0	0
11/14/2023	0	100	46.21	15.61	0
11/21/2023	0	100	76.46	15.61	0

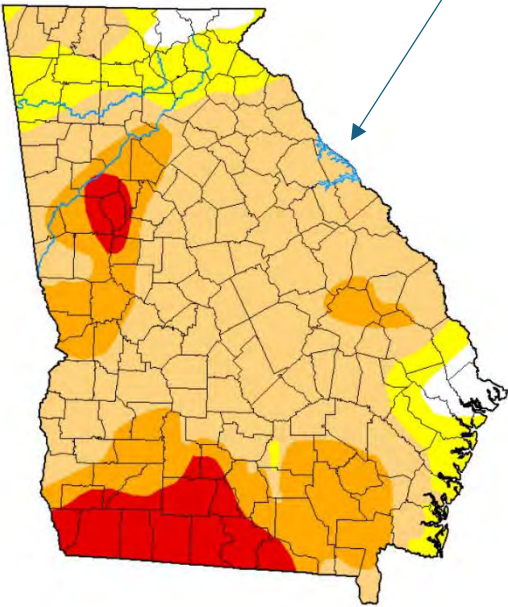
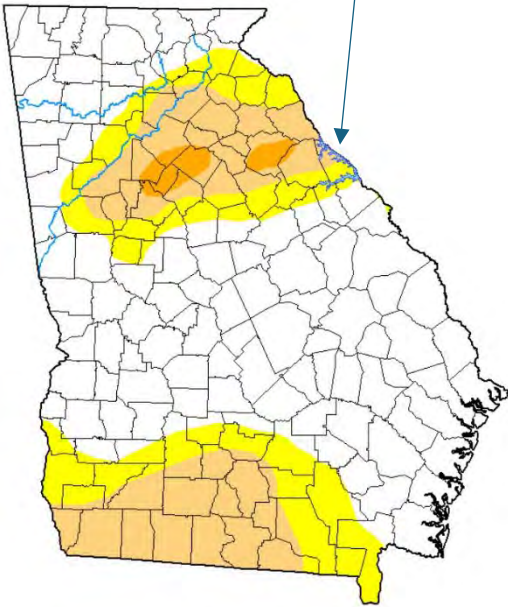
Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
11/28/2023	0	100	74.97	3.85	0
12/5/2023	0	100	78.33	0.8	0
12/12/2023	0	100	78.33	0.8	0
12/19/2023	0	100	77.07	0.8	0
12/26/2023	0	100	54.33	0	0
1/2/2024	0	100	4.74	0	0
1/9/2024	95.26	4.74	0.07	0	0
1/16/2024	99.93	0.07	0	0	0
1/23/2024	99.89	0.11	0	0	0
1/30/2024	100	0	0	0	0
2/6/2024	100	0	0	0	0
2/13/2024	100	0	0	0	0
2/20/2024	100	0	0	0	0
2/27/2024	100	0	0	0	0
3/5/2024	100	0	0	0	0
3/12/2024	100	0	0	0	0
3/19/2024	100	0	0	0	0
3/26/2024	100	0	0	0	0
4/2/2024	100	0	0	0	0
4/9/2024	100	0	0	0	0
4/16/2024	100	0	0	0	0
4/23/2024	100	0	0	0	0
4/30/2024	99.87	0.13	0	0	0
5/7/2024	100	0	0	0	0
5/14/2024	100	0	0	0	0
5/21/2024	100	0	0	0	0
5/28/2024	100	0	0	0	0
6/4/2024	100	0	0	0	0
6/11/2024	100	0	0	0	0
6/18/2024	100	0	0	0	0
6/25/2024	0	100	0	0	0
7/2/2024	0	100	50.69	0	0
7/9/2024	22.52	77.48	21.78	0	0
7/16/2024	22.52	77.48	22.37	0	0
7/23/2024	33.67	66.33	21.2	0	0
7/30/2024	79.9	20.1	0	0	0
8/6/2024	100	0	0	0	0
8/13/2024	100	0	0	0	0
8/20/2024	100	0	0	0	0
8/27/2024	0	100	0	0	0
9/3/2024	0	100	0	0	0
9/10/2024	0	100	100	0	0
9/17/2024	0	100	100	0	0

Drought Lincoln County

Week	None	D0-D4	D1-D4	D2-D4	D3-D4
9/24/2024	0	100	100	18.75	0
10/1/2024	100	0	0	0	0
10/8/2024	100	0	0	0	0
10/15/2024	100	0	0	0	0
10/22/2024	100	0	0	0	0
10/29/2024	0	100	0	0	0
11/5/2024	0	100	0	0	0
11/12/2024	0	100	0	0	0
11/19/2024	0	100	0	0	0
11/26/2024	0	100	0	0	0
12/3/2024	0	100	0	0	0
12/10/2024	0	100	0	0	0
12/17/2024	100	0	0	0	0
12/24/2024	26.1	73.9	0	0	0
12/31/2024	7.62	92.38	0	0	0
1/7/2025	7.62	92.38	0	0	0
1/14/2025	0	100	0	0	0
1/21/2025	0	100	0	0	0
1/28/2025	0	100	0	0	0
2/4/2025	0	100	43.27	0	0
2/11/2025	0	100	43.27	0	0
2/18/2025	0	100	0	0	0
2/25/2025	0	100	0	0	0
3/4/2025	0	100	100	0	0
3/11/2025	0	100	100	0	0
3/18/2025	0	100	100	0	0
3/25/2025	0	100	100	97.48	0
4/1/2025	0	100	100	100	0
4/8/2025	0	100	99.92	0	0
4/15/2025	0	100	99.92	0	0
4/22/2025	0	100	99.92	0	0
4/29/2025	0	100	100	0	0
5/6/2025	0	100	100	0	0
5/13/2025	0	100	0	0	0
5/20/2025	93.8	6.2	0	0	0
5/27/2025	100	0	0	0	0
6/3/2025	100	0	0	0	0
	0	D0-D4	D1-D4	D2-D4	D3-D4
	0	70317.37	47417.48	29604.03	17787.76
	weeks	770	530	335	204

Lincoln County – U. S. Drought Monitor



Drought Classification

- None

D0 (Abnormally Dry)

D1 (Moderate Drought)
- D2 (Severe Drought)

D3 (Extreme Drought)
- D4 (Exceptional Drought)

No Data

< December 10, 2019 > ⌵ ⌴

< October 21, 2025 > ⌵ ⌴

Statistics Comparison

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
2019-12-10	62.87	37.13	20.33	1.68	0.00	0.00	59
2025-10-21	2.99	97.01	85.11	29.11	9.29	0.00	221
Change	-59.88	59.88	64.78	27.43	9.29	0.00	162

Wildfire by Acre

Lincoln	https://weather.gfc.state.ga.us/firedata/index2018.html							
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL
1957	40.7	0	0.94	3.55	0	30.5	0	0
1958	46.6	0	1.2	25.62	1.84	17.39	0	0
1959	36.78	0	0.75	15.76	1.62	16.65	0	0
1960	53.85	0	0	25.13	0	2.05	0	0
1961	57.33	0	0	18.13	0.42	2.77	7.7	0
1962	74.74	10.97	5.92	0	6.33	51.52	0	0
1963	59.88	0	10.06	0	5.77	44.05	0	0
1964	18.08	0	4	1.2	3.35	8.4	1.13	0
1965	42.63	0	4.6	0	23.29	14.74	0	0
1966	54.38	0	0	0.1	51.27	3.01	0	0
1967	48.58	0	0.46	0	11.34	36.78	0	0
1968	236.7	0	5.37	0	113.5	109.52	1.2	7.11
1969	76.16	0	18.49	0	45.33	11.71	0	0.63
1970	115.86	0	3.61	0	29.07	83.18	0	0
1971	20.32	0	0	0	0.06	20.26	0	0
1972	32.5	0	6	0	19.8	6	0.7	0
1973	107.88	0	11.12	14	0.32	82.44	0	0
1974	46.47	0	3.8	0	14.76	27.91	0	0
1975	45.54	34	0	0	2.95	7.74	0.05	0
1976	58.36	0	0	0	8.84	47.93	0	0
1977	60.06	1.52	1.05	0	20.86	29.41	0.6	0
1978	47.46	0.28	1.67	0	0.15	32.19	0	0
1979	21.93	0	0	0	0	19.73	0	0
1980	61.19	8.4	6.52	0	6.18	31.74	0	0
1981	52.6	0	0.69	0	10.79	8.27	0	0
1982	24.9	0	0.14	0	5.32	7.48	0	0
1983	36.47	0.66	0	0	10	14.44	6.18	0
1984	8.56	0	0	0	0.77	5.26	0	0
1985	58.1	0	0.67	0.75	4.91	36.94	0	0
1986	106.85	22.3	0.71	0.28	9.65	39.61	13.07	0
1987	119.04	60.87	2.88	0.3	5.6	30.26	5.92	0
1988	58.28	3.06	0.18	16.73	8.3	11.93	16.99	0
1989	129.26	0	1.64	0.07	0.08	124.1	0.1	0
1990	43.89	0	5.21	1.94	19.52	13.1	0.42	0
1991	71.73	0	27.52	1.98	1.83	25.79	0.01	0
1992	19.04	0	2.32	2.91	4.21	6.54	0	0
1993	25.02	0.05	0.26	0.06	2.19	6.04	0	0
1994	34.62	0	1.43	0	1.31	21.66	5.8	0
1995	122.28	0	25.43	0	0.12	92.19	1.31	0
1996	61.43	0	29.22	0	1.35	17.59	0	0
1997	47.46	0	1.39	0	0.16	36.76	0.26	0
1998	75.43	0.76	0.19	0	0	70.26	1.48	0

Lincoln	https://weather.gfc.state.ga.us/firedata/index2018.html							
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL
1999	76.64	0	0	0	0	42.83	0	0
1987	119.04	60.87	2.88	0.3	5.6	30.26	5.92	0
1988	58.28	3.04	0.18	16.73	8.3	11.93	17.23	0
1989	129.26	0	1.64	0.07	0.08	124.1	0.77	0
1990	43.89	0	5.21	1.94	19.52	13.1	0.42	0
1991	71.73	0	27.52	1.98	1.83	25.79	0.01	0
1992	19.04	0	2.32	2.91	4.21	6.54	0	0
1993	25.02	0.05	0.26	0.06	2.19	6.04	0	0
1994	34.62	0	1.43	0	1.31	21.66	10.22	0
1995	122.28	0	25.43	0	0.12	92.19	1.31	0
1996	61.43	0	29.22	0	1.35	17.59	0.63	0
1997	47.46	0	1.39	0	0.16	36.76	0.3	0
1998	75.43	0.76	0.19	0	0	70.26	1.77	0
1999	177.75	0	0.82	0.44	0.29	125.47	0.73	0
2000	49.23	12	0.7	0	0.5	12.73	0	0
2001	37.14	0	0	0	0	15.33	12.4	0
2002	75.06	19.93	0	0	36.2	15.94	0	0
2003	3.56	0	0.79	0	0	2.77	0	0
2004	238.84	0	4.8	2.24	0	103.81	0	0
2005	71.08	0	33	0	0	32.56	0	0
2006	30.9	0.26	7.56	0.73	1.26	7.63	0.02	0
2007	90.23	3.77	22.1	19.1	5.4	16.37	0	0
2008	122.54	92.74	1.35	0.26	1.44	24	0.04	0
2009	11.69	3.3	0	0.1	0	2.75	0	0
2010	33.15	12.33	0.05	0.77	0	17.2	0	0
2011	171.53	1.3	47.31	0.9	0	67	26.5	0
2012	14.13	0	0.1	1.1	0	5.5	0	0
2013	40.03	0	7.6	0	0	26	4.83	0
2014	115.69	0	12.32	0	0.2	60.32	1	0
2015	27.73	0	0	0	0	24.8	0	0
2016	6.15	0.5	0.5	0	0	2.6	0	0
2017	108.05	89.8	17.3	0	0	0.25	0	0
2018	27.5	0	0	0	0	1.55	15.47	0
2019	10.53	0	0.03	0	0	2.1	0.87	0
2020	42.64	33.4	0	0	0	1.24	0	0
2021	50.1	0	0	0.25	0	4.15	1.2	0
2022	3.01	0	0	0	0	2.51	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0

Lincoln	https://weather.gfc.state.ga.us/firedata/index2018.html							
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
		476.92						

CHILD	MISC	D-RES	D-AG	D-SIT	D-HOU	D-LC	D-XRX	D-OTH
0	5.71							
0	0.55							
0	2							
0	26.67							
0	28.31							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0							
0	0.8							
0.15	1.44							
3.74	2.88							
8.97	4.2							
0	2.2							
0.64	7.71							
0	32.85							
0.17	11.79							
2.04	3.15							
0.39	2.14							
0	14.83							
0.05	21.18							
5.2	8.01							
0.56	0.53							
0.9	2.37							
0.05	3.65							
8.58	6.02							
0.23	2.83							
0	16.42							
4.42	0							
0	3.23							
4.66	8.61							
0.04	8.85							
0.68	2.06							

[illegible]

Wildfire by Number

Lincoln	https://weather.gfc.state.ga.us/firedata/index2018.html									
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
1957	5	0	1	2	0	1	0	0	0	1
1958	11	0	1	3	2	4	0	0	0	1
1959	16	0	1	4	2	8	0	0	0	1
1960	7	0	0	3	0	1	0	0	0	3
1961	22	0	0	5	1	3	5	0	0	8
1962	13	2	3	0	3	5	0	0	0	0
1963	12	0	3	0	2	7	0	0	0	0
1964	12	0	1	1	3	4	3	0	0	0
1965	15	0	2	0	6	7	0	0	0	0
1966	16	0	0	1	11	4	0	0	0	0
1967	14	0	2	0	5	7	0	0	0	0
1968	25	0	4	0	8	11	1	1	0	0
1969	18	0	4	0	6	7	0	1	0	0
1970	28	0	3	0	7	18	0	0	0	0
1971	18	0	6	0	1	10	0	1	0	0
1972	24	0	9	0	8	4	2	1	0	0
1973	28	1	8	1	1	17	0	0	0	0
1974	33	0	7	0	11	15	0	0	0	0
1975	15	2	1	0	2	7	1	0	0	2
1976	18	0	0	0	2	9	0	0	1	6
1977	36	2	3	0	6	17	1	0	1	6
1978	34	1	2	0	1	16	0	0	3	11
1979	20	0	0	0	0	16	0	0	0	4
1980	34	1	3	0	3	21	0	0	2	4
1981	23	0	1	0	4	13	0	0	0	5
1982	18	0	1	0	2	8	0	0	1	6
1983	20	1	0	0	2	12	2	0	1	2
1984	14	0	0	0	3	6	0	0	1	4
1985	52	0	2	1	6	29	0	0	0	14
1986	34	1	3	1	5	7	4	0	1	12
1987	56	4	4	2	6	15	4	0	3	18
1988	60	4	3	2	10	12	20	0	2	7
1989	27	0	3	1	2	11	3	0	1	6
1990	30	0	3	4	2	13	1	0	1	6
1991	30	0	2	1	4	12	1	0	3	7
1992	22	0	2	1	3	11	0	0	1	4
1993	15	1	2	1	2	6	0	0	0	3
1994	13	0	1	0	4	6	2	0	0	0
1995	17	0	3	0	1	10	1	0	0	2
1996	21	0	4	0	2	9	1	0	1	4
1997	29	0	5	0	1	15	3	0	0	5
1998	22	1	2	0	0	13	3	0	1	2
1999	25	0	1	1	1	16	1	0	0	5
2000	11	1	1	0	1	6	0	0	0	2
2001	15	0	0	0	0	8	2	0	1	4
2002	10	2	0	0	1	3	0	0	1	3
2003	4	0	1	0	0	3	0	0	0	0

Lincoln	https://weather.gfc.state.ga.us/firedata/index2018.html									
CY	TOTAL	LIGHT	MACHI	CAMP	SMOKE	DEBRI	ARSON	RAIL	CHILD	MISC
2004	29	0	1	2	0	16	0	0	0	10
2005	12	0	1	0	0	6	0	0	1	4
2006	23	1	5	1	1	8	1	0	1	5
2007	21	2	2	1	2	8	0	0	0	6
2008	20	4	3	1	2	6	1	0	0	3
2009	7	1	0	1	0	2	0	0	1	2
2010	9	2	1	1	0	4	0	0	0	1
2011	17	1	4	1	0	4	2	0	0	5
2012	13	0	2	1	0	5	0	0	1	4
2013	8	0	1	0	0	2	3	0	0	2
2014	18	0	4	0	1	4	1	0	1	7
2015	4	0	0	0	0	2	0	0	0	2
2016	7	2	1	0	0	2	0	0	0	2
2017	4	1	1	0	0	1	0	0	0	1
2018	13	1	0	0	0	5	3	0	0	4
2019	9	0	1	0	0	1	1	0	2	4
2020	5	1	0	1	0	2	0	0	0	1
2021	7	0	0	1	0	4	1	0	0	1
2022	7	0	0	2	0	4	0	0	0	1
2023	0	0	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0	0	0

Wildfire Hazard Score Lincoln County

Facility Name	Facility Address	County	Jurisdiction	Facility Value	Contents Replacement Value	Wildfire Hazard Score
Well #6		Lincoln	Lincolnton city	100,000.00	0.00	0
Lincolnton Waste Water Treatment Plant	1133 Mitchell Ln	Lincoln	Lincolnton city	3,376,444.00	109,821.00	0
Lincoln County High School	200 Charles Ward Elam St	Lincoln	Lincoln County	28,877,680.00	1,279,446.00	0
Industrial Park Lift Station		Lincoln	Lincoln County	200,000.00	0.00	0
Cliatts Lift Station		Lincoln	Lincoln County	200,000.00	0.00	0
Murray Jones Lift Station		Lincoln	Lincoln County	200,000.00	0.00	1
City of Lincolnton Water Treatment Plant	2247 McCormick Hwy	Lincoln	Lincolnton city	4,127,094.00	105,936.00	1
Martins Crossroads VFD Station 6	Ga 220E @ Hwy 378	Lincoln	Lincoln County	96,000.00	240,000.00	2
Martins Corssroads VFD Station 5	3911 Double Branches Roa	Lincoln	Lincoln County	300,000.00	600,000.00	2
Loco VFD Station #3	2650 Hwy 220 West	Lincoln	Lincoln County	210,000.00	600,000.00	2
Loco VFD Station	2351 Lovelace Rd	Lincoln	Lincoln County	120,000.00	0.00	2
Gunby Lift Station		Lincoln	Lincoln County	200,000.00	0.00	2
Wilkes Telephone Switching Office	155 S Peachtree St	Lincoln	Lincoln County	1,500,000.00	0.00	3
Well #7		Lincoln	Lincolnton city	100,000.00	0.00	3
Well #4		Lincoln	Lincolnton city	100,000.00	0.00	3
Well #3		Lincoln	Lincolnton city	100,000.00	0.00	3
The Lincoln Center	160 May Ave	Lincoln	Lincoln County	643,380.00	0.00	3
Remsen Road water Tank		Lincoln	Lincolnton city	1,000,000.00	0.00	3
Old High School Building	345 Ward Ave	Lincoln	Lincoln County	5,473,582.00	108,641.00	3
Midway VFD Station #7	2632 Midway Church Rd	Lincoln	Lincoln County	180,000.00	600,000.00	3
Midway VFD Station 8	1035 Bethany Church	Lincoln	Lincoln County	180,000.00	0.00	3
Lincolnton Water Tower - May Ave	May Ave	Lincoln	Lincolnton city	129,188.00	0.00	3
Lincolnton Volunteer Fire Department	161 N Peachtree St	Lincoln	Lincolnton city	441,182.00	40,431.00	3
Lincolnton Public Works (City Barn)	126 School St	Lincoln	Lincolnton city	180,864.00	38,757.00	3
Lincolnton Police Department	148 Ward Ave	Lincoln	Lincolnton city	37,920.00	2,572.00	3
Lincolnton Club House	255 N Washington St	Lincoln	Lincolnton city	255,250.00	10,000.00	3
Lincolnton City Hall	125 N Peachtree St	Lincoln	Lincolnton city	558,338.00	31,549.00	3
Lincoln County Sheriffs Office	145 School St	Lincoln	Lincoln County	1,252,125.00	0.00	3
Lincoln County Recreation Complex	1962 Rowland-York Dr	Lincoln	Lincoln County	248,605.00	0.00	3
Lincoln County Public Works	1765 Old Petersburg Rd	Lincoln	Lincoln County	121,720.00	0.00	3
Lincoln County Public Safety - 911	170 School St	Lincoln	Lincoln County	75,720.00	480,000.00	3
Lincoln County Public Library	181 N Peachtree St	Lincoln	Lincoln County	681,810.00	0.00	3
Lincoln County Planning/Zoning and Public Works	107 Perryman Ave	Lincoln	Lincoln County	165,000.00	0.00	3
Lincoln County Office of Emergency Services	160 School St	Lincoln	Lincoln County	240,000.00	0.00	3
Lincoln County Middle School	343 Ward Avenue	Lincoln	Lincoln County	8,387,200.00	499,135.00	3
Lincoln County Industrial Development Authority	112 N Washington St	Lincoln	Lincoln County	113,294.00	0.00	3

Wildfire Hazard Score Lincoln County

Facility Name	Facility Address	County	Jurisdiction	Facility Value	Contents Replacement Value	Wildfire Hazard Score
Lincoln County Health Department	176 N Peachtree St	Lincoln	Lincoln County	363,780.00	0.00	3
Lincoln County Elementary School	175 Rowland-York Dr	Lincoln	Lincoln County	1,235,384.00	608,894.00	3
Lincoln County Department of Family and Childrens Services	171 N Peachtree St	Lincoln	Lincoln County	140,600.00	0.00	3
Lincoln County Courthouse	210 Humphrey St	Lincoln	Lincoln County	14,036,608.00	600,000.00	3
Lincoln County Board of Tax Assessors	182 Humphrey St	Lincoln	Lincoln County	137,003.00	0.00	3
Lincoln County Board of Education	423 Metasville Road	Lincoln	Lincoln County	509,718.00	125,272.00	3
Graves Mountian Water Tank		Lincoln	Lincolnton city	500,000.00	0.00	3
Double Branches Water Plant		Lincoln	Lincolnton city	1,000,000.00	0.00	3
Booster Pump Station		Lincoln	Lincolnton city	250,000.00	0.00	3
Beulal VFD Station 10	6526 Elberton Hwy	Lincoln	Lincoln County	120,000.00	360,000.00	3
Petersburg Lift Station		Lincoln	Lincoln County	200,000.00	0.00	4
Lincoln County BOE Office	423 Metasville Rd	Lincoln	Lincoln County	530,850.00	0.00	4
				730,850.00	0.00	
				79,927,189.00	6,440,454.00	
	1,500,000.00					
	643,380.00					
	5,473,582.00	40,431.00				
	180,000.00	38,757.00				
	180,000.00	2,572.00			0	
	5,473,582.00	10,000.00			3,381,942	
	180,000.00	31,549.00			1,440,000	
	180,000.00	123,309.00			0	
	1,252,125.00				1,279,446	
	248,605.00				123,309	0
	121,720.00				105,936	
	75,720.00				109,821	
	681,810.00				6440454	
	165,000.00					
	240,000.00					
	8,387,200.00					
	113,294.00					
	363,780.00					
	1,235,384.00					
	140,600.00					

Facility Name	Facility Address	County	Jurisdiction	Facility Value	Contents Replacement Value	Wildfire Hazard Score
	14,036,608.00					
	137,003.00					
	509,718.00					
	120,000.00					
	41,639,111.00					

Lincoln County Tornado												
EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	TOR_F_SCALE	DAMAGE_PROPERTY_NUM	EPISODE_ID	END_DATE	END_TIME	EVENT_NARRATIVE	ABSOLUTE_ROWNUMBER
10010609	LINCOLN CO.		11/22/1992	1700	Tornado	F3	250000		11/22/1992	1700		1
5639178	LINCOLN CO.	LINCOLNTON	5/7/1998	1833	Tornado	F1	50000	2074885	5/7/1998	1835	An F1 tornado destroyed two chicken sheds, tore a roof off a home, and turned a home 90 degrees and moved it off its foundation.	2
5639352	LINCOLN CO.	LINCOLNTON	5/7/1998	1841	Tornado	F2	300000	2074885	5/7/1998	1843	An F2 tornado hit the Pine Woods subdivision destroyoing 12 homes and causing major damage to 15 homes and minor damage to 8 homes.	3
5639353	LINCOLN CO.	NEW HOPE	5/7/1998	1847	Tornado	F1	50000	2074885	5/7/1998	1849	An F1 tornado did major damage and minor damage to several homes and mobile homes.	4
5639354	LINCOLN CO.	NEW HOPE	5/7/1998	1853	Tornado	F2	350000	2074885	5/7/1998	1855	An F2 tornado destroyed 7 homes and did major and minor damage to about a dozen others at Indian Cove.	5

Lincoln County Tornado												
EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	TOR_F_SCALE	DAMAGE_PROPERTY_NUM	EPISODE_ID	END_DATE	END_TIME	EVENT_NARRATIVE	ABSOLUTE_ROWNUMBER
5319414	LINCOLN CO.	GOSHEN	11/11/2002	615	Tornado	F0	0	1144142	11/11/2002	617	A strong F0 took down trees about 1 mile east of Chennault in very rural area.	6
5354316	LINCOLN CO.	NEW HOPE	5/6/2003	1457	Tornado	F0	0	1150626	5/6/2003	1500	Sheriff reported intermittent touch down of tornado between New Hope and Kenna.	7
5434103	LINCOLN CO.	DOUBLE BRANCHES	1/13/2005	1840	Tornado	F0	0	1182446	1/13/2005	1841	An F0 touched down on Blanton road taking down some trees.	8
75951	LINCOLN CO.	GILL	3/15/2008	1528	Tornado	EF0	0	13584	3/15/2008	1530	NWS survey found an F0 touched down and took down many trees along its path. Witnesses saw the tornado go across the river into McCormick county SC.	9

Lincoln County Tornado												
EVENT_ID	CZ_NAME_STR	BEGIN_LOCATION	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	TOR_F_SCALE	DAMAGE_PROPERTY_NUM	EPISODE_ID	END_DATE	END_TIME	EVENT_NARRATIVE	ABSOLUTE_ROWNUMBER
437864	LINCOLN CO.	CLAY HILL	4/28/2013	1708	Tornado	EF0	12000	72570	4/28/2013	1710	NWS storm survey found many trees down along and near Greaham Park Road near Clay Hill.	10

Tropical Storm Lincoln County																	
EVENT_ID	CZ_NAME_STR	BEGIN_DATE	BEGIN_TIME	EVENT_TYPE	DEATHS_DIRECT	INJURIES_DIRECT	STATE_ABBR	CZ_TIMEZONE	EPISODE_ID	CZ_TYPE	CZ_FIPS	WFO	INJURIES_INDIRECT	DEATHS_INDIRECT	SOURCE	EVENT_NARRATIVE	EPISODE_NARRATIVE
789380	LINCOLN (ZONE)	10/10/2018	2100	Tropical Storm	0	0	GA	EST-5	130412	Z	40	CAE	0		Emergency Manager	Winds associated with Tropical Storm Michael downed tree limbs throughout the county.	An area of disturbed weather over the NW Caribbean Sea organized and became Tropical Depression #14 early on Sunday October 7th. The cyclone continued to organize while moving very slowly north, just east of the Yucatan peninsula, becoming Tropical Storm Michael on Sunday afternoon October 7th. The cyclone further developed while moving slowly north, reaching Hurricane status Monday morning October 8th. The cyclone accelerated northward into the Gulf of Mexico while continuing to strengthen, making landfall on the Florida panhandle as a category 4 hurricane Wednesday morning October 10th. The cyclone then turned to the NE and accelerated further, while weakening over land, moving through the Central Savannah River Area (CSRA) of GA and the Midlands of SC as a Tropical Storm, late Wednesday night October 10th into the morning of Thursday October 11th. Across the CSRA of GA, the highest measured peak wind gust, associated with the cyclone, was 52 MPH at Augusta GA Bush Field. Some reports of downed trees and flooding were received.
1209157	LINCOLN (ZONE)	9/27/2024	230	Tropical Storm	1	0	GA	EST-5	195337	Z	40	CAE	0		NWS Storm Survey	Widespread trees and power lines down throughout the county leading to many closed roads. Large sections of the county lost power for extended period of time. Falling trees and wind caused substantial structural damage across the county. At least 207 homes sustained some level of damage including 16 destroyed and 79 with major damage. NWS storm survey estimated that maximum wind gusts around 80-100 mph. A man was killed when a tree fell on his home. Areas of flooding with 2 day rainfall from a COOP observer in Lincoln of 7.20 inches.	Tropical Storm Helene formed in the NW Caribbean Sea on September 24. Helene moved northward into the Gulf of Mexico where it strengthened into a hurricane on September 25. Helene made landfall as a major hurricane in the Big Bend area of Florida the night of September 26 before quickly moving inland into east central Georgia by early morning on September 27. Helene weakened to a strong tropical storm and produced widespread significant wind damage, including wind gusts above 100 mph across east central Georgia and central South Carolina as well as numerous tornadoes. Numerous fatalities and injuries were reported associated with the passage of Helene.

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAME	EPISODE_NARRATIVE	ABSOLUTE_
9997473	LINCOLN CO.		4/24/1967	Hail			1
5639355	LINCOLN CO.	AMITY	5/7/1998	Hail	Sheriff reported nickel size hail.		23
5691362	LINCOLN CO.	AMITY	5/6/1999	Hail	Spotter reported nickel size hail.		28
5142524	LINCOLN CO.	AMITY	5/25/2000	Hail	SKYWARN spotter reported 3/4 inch hail.		32
5490773	LINCOLN CO.	AMITY	4/19/2006	Hail	COOP reported 3/4 inch hail.		48
5490777	LINCOLN CO.	AMITY	4/21/2006	Hail	Observer reported 3/4 inch hail.		49
680211	LINCOLN CO.	AMITY	4/5/2017	Hail	Lincoln Co	With a mean upper trough axis to our west, a lead impulse moved through our region in a SW flow aloft Wednesday. At the surface, a stationary front was stretched across central SC/GA, with a cold front to our west, that came through late Wednesday night. Upper energy, diurnal heating, strong low to mid level jets, and the surface front, contributed to moderate to strong instabilities, along with strong shear. This produced severe thunderstorm activity, including a few tornadoes, along with numerous reports of strong damaging straight-line wind gusts and large hail. In addition, training cells in a moisture-rich environment, contributed to locally heavy rainfall and flash flooding in a few locations.	105
680214	LINCOLN CO.	AMITY	4/5/2017	Hail	Lincoln Co	With a mean upper trough axis to our west, a lead impulse moved through our region in a SW flow aloft Wednesday. At the surface, a stationary front was stretched across central SC/GA, with a cold front to our west, that came through late Wednesday night. Upper energy, diurnal heating, strong low to mid level jets, and the surface front, contributed to moderate to strong instabilities, along with strong shear. This produced severe thunderstorm activity, including a few tornadoes, along with numerous reports of strong damaging straight-line wind gusts and large hail. In addition, training cells in a moisture-rich environment, contributed to locally heavy rainfall and flash flooding in a few locations.	107
1065371	LINCOLN CO.	AMITY	1/12/2023	Hail	Dime size h	Sufficient atmospheric instability and shear led to thunderstorm development, some of which produced damaging winds and tornadoes.	137
10321121	LINCOLN CO.	Amity & Wo	11/2/1995	Hail			10
5569718	LINCOLN CO.	CLARKS HIL	3/15/1996	Hail			11

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
5691549	LINCOLN CO.	DOUBLE B	5/13/1999	Hail	Spotter reported	dime size hail.	31
110590	LINCOLN CO.	GILL	8/2/2008	Hail	Emergency	An isolated severe thunderstorm produced hail and power outages in Lincoln county.	63
154416	LINCOLN CO.	GILL	4/10/2009	Hail	Sheriff repo	Supercell thunderstorms moved across the CSRA and produced large tornadoes. One tornado tracked across Columbia and Richmond counties then went into Aiken county South Carolina along highway 278. The second tornado tracked across Burke county then into lower Barnwell and Allendale counties in South Carolina. Several homes were destroyed and many had moderate to severe damage. Widespread trees and powerlines were also down. Total damage estimate was 3 million dollars.	65
371300	LINCOLN CO.	GOSHEN	5/17/2012	Hail	Public repo	An isolated severe thunderstorm over Lincoln county took down trees and produced nickel size hail.	89
680213	LINCOLN CO.	GOSHEN	4/5/2017	Hail	Lincoln Co	With a mean upper trough axis to our west, a lead impulse moved through our region in a SW flow aloft Wednesday. At the surface, a stationary front was stretched across central SC/GA, with a cold front to our west, that came through late Wednesday night. Upper energy, diurnal heating, strong low to mid level jets, and the surface front, contributed to moderate to strong instabilities, along with strong shear. This produced severe thunderstorm activity, including a few tornadoes, along with numerous reports of strong damaging straight-line wind gusts and large hail. In addition, training cells in a moisture-rich environment, contributed to locally heavy rainfall and flash flooding in a few locations.	106
301204	LINCOLN CO.	KENNA	6/18/2011	Hail	Campers at	Clusters of severe thunderstorms produced some wind damage, mostly trees, and some large hail in the CSRA.	85
939814	LINCOLN CO.	KEYSVILLE	3/26/2021	Hail	Public repo	Scattered thunderstorms developed along a frontal boundary. One thunderstorm produced sub-severe sized hail.	134
225068	LINCOLN CO.	LEATHERSV	6/15/2010	Hail	Sheriff repo	Pulse storms developed over the CSRA and produced some wind damage and hail. A downburst hit in Augusta and damaged a building and some vehicles.	75
5569725	LINCOLN CO.	LINCOLNTC	4/13/1996	Hail			12

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
5569750	LINCOLN CO.	LINCOLNTC	5/7/1996	Hail		Highway Maintenance Dept reports 1 3/4 inch hail north of Lincolnton.	13
5594044	LINCOLN CO.	LINCOLNTC	4/22/1997	Hail		COOP reports 1 inch hail in southwest Lincoln county.	15
5639087	LINCOLN CO.	LINCOLNTC	5/7/1998	Hail		Sheriff reported nickel size hail.	21
5639088	LINCOLN CO.	LINCOLNTC	5/7/1998	Hail		Sheriff reported golf ball size hail.	22
5639357	LINCOLN CO.	LINCOLNTC	5/7/1998	Hail		Sheriff reported 3/4 inch hail.	24
5691473	LINCOLN CO.	LINCOLNTC	5/13/1999	Hail		Post Office reported nickel size hail.	30
5354315	LINCOLN CO.	LINCOLNTC	5/6/2003	Hail		Sheriff reported golf ball size hail on hwy 79 north of Lincolnton and nickel size hail in	41
5434100	LINCOLN CO.	LINCOLNTC	1/13/2005	Hail		SKYWARN HAM operator reported 3/4 inch hail near Double Branches.	46
26211	LINCOLN CO.	LINCOLNTC	6/12/2007	Hail	Public repo	Thunderstorms developed along an outflow boundary and moved south through the CSRA producing large hail and taking down some trees.	53
79684	LINCOLN CO.	LINCOLNTC	4/4/2008	Hail	Public repo	A squall line developed ahead of a cold front and produced several severe thunderstorms.	57
86786	LINCOLN CO.	LINCOLNTC	5/10/2008	Hail	Sheriff repd	Cluster pulse storms moved through the CSRA and produced large hail.	58
95801	LINCOLN CO.	LINCOLNTC	6/22/2008	Hail	Sheriff repd	Clusters of Pulse Thunderstorms produced some wind damage and large hail.	62
165213	LINCOLN CO.	LINCOLNTC	6/17/2009	Hail	Sheriff Disp	Shortwaves moving around a large ridge of high pressure to our west produced a complex of thunderstorms that moved southeast across the Central Savannah River Area.	67
697116	LINCOLN CO.	LINCOLNTC	5/29/2017	Hail	Lincoln Cou	An upper level impulse combined with atmospheric instability and deep layer shear to produce scattered severe thunderstorms that produced wind damage and hail.	109
819169	LINCOLN CO.	LINCOLNTC	5/4/2019	Hail	COOP Obs	An upper disturbance and sufficient atmospheric moisture and instability led to scattered showers and thunderstorms across the region in the afternoon and evening, a few of which were strong.	117
819168	LINCOLN CO.	LINCOLNTC	5/4/2019	Hail	Lincoln Co	An upper disturbance and sufficient atmospheric moisture and instability led to scattered showers and thunderstorms across the region in the afternoon and evening, a few of which were strong.	118
845979	LINCOLN CO.	LINCOLNTC	8/18/2019	Hail	Several rep	An isolated severe thunderstorm occurred.	128

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
697117	LINCOLN CO.	LINCOLN CO.	5/29/2017	Hail	Public repo	An upper level impulse combined with atmospheric instability and deep layer shear to produce scattered severe thunderstorms that produced wind damage and hail.	110
5610102	LINCOLN CO.	NEW HOPE	9/10/1997	Hail	Highway Dept.	reports 3/4 inch hail.	20
75952	LINCOLN CO.	NEW HOPE	3/15/2008	Hail	Sheriff repo	Three supercells tracked across portions of the GA CSRA and produce multiple long-lived tornadoes that produced significant damage.	56
766450	LINCOLN CO.	NEW HOPE	7/3/2018	Hail	Dime to nic	Moisture transport, along with a weak upper disturbance, pushing inland from the coast combined with daytime heating to produce scattered thunderstorms across the CSRA of GA, a few of which reached severe limits in the late afternoon and evening.	114
87264	LINCOLN CO.	LINCOLN CO.	5/10/2008	Lightning	Jones Chap	Cluster pulse storms moved through the CSRA and produced large hail.	59
9996783	LINCOLN CO.		5/11/1973	Thunderstorm Wind			2
9994446	LINCOLN CO.		5/28/1979	Thunderstorm Wind			3
9994906	LINCOLN CO.		12/28/1983	Thunderstorm Wind			4
9995877	LINCOLN CO.		7/13/1985	Thunderstorm Wind			5
10009414	LINCOLN CO.		8/9/1991	Thunderstorm Wind			6
1170215	LINCOLN CO.	AGNES	5/25/2024	Thundersto	Lincoln Cou	A line of thunderstorms entered the northern portion of the CSRA causing damage.	143
5228107	LINCOLN CO.	AMITY	1/19/2001	Thundersto	Post Office	reported several trees down across the southern part of the county.	33
5423900	LINCOLN CO.	AMITY	11/24/2004	Thundersto	Post Office	reported trees down near Amity.	45
437863	LINCOLN CO.	AMITY	4/28/2013	Thundersto	Storm surve	A supercell thunderstorm produced a tornado near the Ft. Gordon Recreation Area in northern Columbia county. Witnesses said the tornado went over the lake.	92
570681	LINCOLN CO.	AMITY	6/9/2015	Thundersto	Lincoln DO	Thunderstorms over the CSRA produced winds that took down trees and also hail around the size of a dime. One tree fell on a vehicle causing and injury to the occupant.	100
679797	LINCOLN CO.	AMITY	3/21/2017	Thundersto	Lincoln Co	A frontal boundary stretched across the region, with warm and unstable air along and south of the boundary, combined with a strong upper level disturbance to produce severe thunderstorms that moved across the region, producing strong damaging wind and some hail.	103

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
679550	LINCOLN CO.	AMITY	4/3/2017	Thundersto	More than 2	An upper level trough over northern Texas lifted into the Midwest. A series of upper level disturbances embedded in the trough moved over the Southeast during the afternoon and evening. The associated surface low developed across Missouri/Illinois with a trailing cold front which moved eastward from Mississippi to South Carolina through the day. The main area of thunderstorms developed ahead of the cold front in a quickly advancing line with some discrete supercells developing in southeastern Georgia. The main and most significant band of convection, enhanced by a strong low level jet and moisture transport off of the Gulf of Mexico, pushed quickly across the Midlands and Central Savannah River Area (CSRA) during the afternoon and early evening. The combination of moderate atmospheric instability and very strong vertical wind shear set the stage for a severe weather outbreak, which included a few tornadoes, strong damaging straight-line wind gusts, and a few hail reports across the Midlands and CSRA.	104
823876	LINCOLN CO.	AMITY	6/22/2019	Thundersto	Numerous	Strong atmospheric instability and moderate shear combined with surface boundaries to produce scattered severe thunderstorms in the late afternoon and evening.	124
906304	LINCOLN CO.	AMITY	8/3/2020	Thundersto	Trees were	A band of thunderstorms developed over N GA and moved east, and converged with another band of thunderstorms on the western periphery of tropical cyclone Isaias, which was centered just offshore the SC coast. Some of the thunderstorms produced wind damage.	133
970551	LINCOLN CO.	AMITY	8/31/2021	Thundersto	Lincoln Co	Daytime heating combined with increased moisture and enhanced wind fields and shear, associated with Tropical Depression Ida moving across the Tennessee Valley, to produce a band of fast-moving showers and thunderstorms. A segment of the line developed into a bow echo in which severe wind gusts took down some trees.	135

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAME	EPISODE_NARRATIVE	ABSOLUTE_
1194341	LINCOLN CO.	AMITY	7/17/2024	Thundersto	Lincoln Co	Unusually deep trough across the Great Lakes helped create weak shortwaves across the southeastern US during mid-July. With hot surface temperatures in the mid and upper 90s, an unstable atmosphere developed and resulted in scattered strong to severe thunderstorms on the afternoon and evening of July 17. Microbursts were the primary cause of damaging winds.	144
5246663	LINCOLN CO.	CLAY HILL	6/14/2001	Thundersto	Sheriff reported	Sheriff reported trees down in Clay Hill.	35
86898	LINCOLN CO.	CURRY HIL	5/11/2008	Thundersto	DOT report	A few supercells moved through the CSRA and produce large hail and a tornado.	60
295052	LINCOLN CO.	CURRY HIL	5/26/2011	Thundersto	Sheriff rep	Scattered severe thunderstorms produced some large hail and wind damage.	82
453735	LINCOLN CO.	CURRY HIL	7/17/2013	Thundersto	Sheriff rep	Scattered severe thunderstorms produced some large hail and damaging winds over portions of the CSRA.	94
198770	LINCOLN CO.	DOUBLE BF	12/9/2009	Thundersto	SKYWARN	A few severe thunderstorms moved across the CSRA taking down trees and powerlines.	70
814010	LINCOLN CO.	DOUBLE BF	4/19/2019	Thundersto	Tree down	Moderate to strong atmospheric instability and shear led to two separate lines of showers and thunderstorms that moved east across the region during the afternoon and evening, producing some wind damage. An indirect fatality occurred in an automobile accident.	116
823842	LINCOLN CO.	DOUBLE BF	6/22/2019	Thundersto	Trees were	A NW flow aloft brought a mesoscale convective system, which originated in the Midwest on 6/21, SE across the CSRA during the early morning hours of 6/22, producing wind damage in a few locations.	123
10321120	LINCOLN CO.	Elijah Clark	6/10/1995	Thundersto	Thunderstorm	Thunderstorm winds knocked over a camper, along with several large tree limbs. Se	9
1102327	LINCOLN CO.	GILL	7/20/2023	Thundersto	Numerous	A line of severe thunderstorms, aided by some upper energy and deep layer shear, developed over north Georgia and moved SE across the Central Savannah River Area of GA, during the late day and evening, and produced widespread wind damage.	138
214944	LINCOLN CO.	GILL	4/8/2010	Thundersto	Spotter rep	A few severe storms developed ahead of a cold front that pushed across the Central Savannah River area on the evening of the 8th.	72

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
215449	LINCOLN CO.	GILL	4/8/2010	Thundersto	Spotter rep	Severe thunderstorms produced wind damage and hail in the CSRA.	73
275990	LINCOLN CO.	GILL	2/28/2011	Thundersto	Sheriff rep	Severe thunderstorms rumbled across northern Lincoln county causing power outages across the area.	80
699564	LINCOLN CO.	GILL	7/6/2017	Thundersto	Lincoln Co	Strong daytime heating, along with a surface trough and dry air aloft, all combined to produce scattered severe thunderstorms in the late afternoon and evening.	111
820156	LINCOLN CO.	GILL	6/20/2019	Thundersto	Country dis	An upper level disturbance and surface front combined with daytime heating, strong atmospheric instability and moderate deep layer shear to produce severe thunderstorms that produced damaging winds.	119
820157	LINCOLN CO.	GILL	6/20/2019	Thundersto	Trees down	An upper level disturbance and surface front combined with daytime heating, strong atmospheric instability and moderate deep layer shear to produce severe thunderstorms that produced damaging winds.	120
823841	LINCOLN CO.	GILL	6/22/2019	Thundersto	Trees were	A NW flow aloft brought a mesoscale convective system, which originated in the Midwest on 6/21, SE across the CSRA during the early morning hours of 6/22, producing wind damage in a few locations.	122
864482	LINCOLN CO.	GILL	1/11/2020	Thundersto	Large bran	A line of thunderstorms, some severe, moved through the region during the evening, producing some wind damage.	129
867959	LINCOLN CO.	GILL	2/6/2020	Thundersto	Two trees w	Upper energy and a cold front, along with moderate instability and strong shear, produced a band of showers and thunderstorms, some severe.	131
371301	LINCOLN CO.	GOSHEN	5/17/2012	Thundersto	Dispatch re	An isolated severe thunderstorm over Lincoln county took down trees and produced nickel size hail.	90
532125	LINCOLN CO.	GOSHEN	9/3/2014	Thundersto	DOT report	A couple of isolated severe thunderstorms took down some trees in Lincoln County.	98
566641	LINCOLN CO.	GOSHEN	5/18/2015	Thundersto	Emergency	An isolated severe thunderstorm produced some wind damage in Lincoln county taking down some trees.	99
165214	LINCOLN CO.	KENNA	6/17/2009	Thundersto	Sheriff Dis	Shortwaves moving around a large ridge of high pressure to our west produced a complex of thunderstorms that moved southeast across the Central Savannah River Area.	66

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
337446	LINCOLN CO.	KENNA	9/27/2011	Thundersto	Reported tr	A weak impulse rotated around a large closed low located across the lower Great Lakes. Scattered showers and thunderstorms developed during the afternoon and evening. A few of these storms became severe producing large hail and damaging winds.	87
644880	LINCOLN CO.	KENNA	6/17/2016	Thundersto	Straight line	A back door cold front moved slowly southward across the Midlands. Scattered to numerous strong to severe thunderstorms developed ahead of this boundary. The storms produced strong damaging wind gusts and hail.	102
820158	LINCOLN CO.	KENNA	6/20/2019	Thundersto	Tree down	An upper level disturbance and surface front combined with daytime heating, strong atmospheric instability and moderate deep layer shear to produce severe thunderstorms that produced damaging winds.	121
1102334	LINCOLN CO.	KENNA	7/20/2023	Thundersto	A line of sev	A line of severe thunderstorms, aided by some upper energy and deep layer shear, developed over north Georgia and moved SE across the Central Savannah River Area of GA, during the late day and evening, and produced widespread wind damage.	139
1120429	LINCOLN CO.	KENNA	8/27/2023	Thundersto	DOT report	A stalled frontal boundary across the Midlands and Central Savannah River Area was the focus showers and storms that produced isolated damaging winds.	140
508578	LINCOLN CO.	LEATHERSV	5/25/2014	Thundersto	Lincolnton	A squall line of severe thunderstorms developed into a bow echo and raced through the CSRA producing some large hail and some wind damage.	95
10321118	LINCOLN CO.	Lincolnton	6/27/1994	Thundersto	Numerous trees, large limbs and power lines were downed by thunderstorm winds.		7
10321119	LINCOLN CO.	Lincolnton	6/28/1994	Thundersto	Numerous large trees were downed by thunderstorm winds.		8
5637868	LINCOLN CO.	LINCOLNTC	6/19/1998	Thundersto	Sheriff reported trees down.		27
221328	LINCOLN CO.	LINCOLNTC	5/23/2010	Thundersto	Sheriff rep	Isolated severe thunderstorms developed over the CSRA and produced large hail and an intense microburst that damaged some homes and took down trees and powerlines.	74
282718	LINCOLN CO.	LINCOLNTC	4/5/2011	Thundersto	Many trees	An intense squall line moved through the Carolinas and Georgia producing straight line wind damage and numerous microbursts. Numerous trees were down and many structures were severely damaged. Microburst winds were estimated to be around 100mph for some events.	81

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
5570170	LINCOLN CO.	LINCOLNTC	6/13/1996	Thunderstorm	Wind	A severe thunderstorm damaged a new building on a golf course and blew down numerous trees in Lincolnnton.	14
5594236	LINCOLN CO.	LINCOLNTC	4/22/1997	Thunderstorm	Wind	GEMA reports trees and powerlines down in and around Lincolnnton. One barn and several storage buildings were destroyed. Several homes had minor damage. County-wide damage estimates were \$75K.	16
5620270	LINCOLN CO.	LINCOLNTC	7/16/1997	Thundersto		Sheriff reports numerous trees down throughout the county.	18
5636162	LINCOLN CO.	LINCOLNTC	6/9/1998	Thundersto		EPD reported many trees down in Pleasantville subdivision.	25
5636275	LINCOLN CO.	LINCOLNTC	6/16/1998	Thundersto		Public reported several trees down.	26
5246647	LINCOLN CO.	LINCOLNTC	6/6/2001	Thundersto		EM reported trees and powerlines down in and around the Lincolnnton area. Street fl	34
5260374	LINCOLN CO.	LINCOLNTC	8/24/2001	Thundersto		Sheriff reported trees down on Tabernacle Church road near Midway.	36
5260375	LINCOLN CO.	LINCOLNTC	8/24/2001	Thundersto		Post Office reported trees down on Lewis Family road.	37
5295169	LINCOLN CO.	LINCOLNTC	5/13/2002	Thundersto		Emergency Manager reported several trees down in Lincolnnton.	38
5319413	LINCOLN CO.	LINCOLNTC	11/11/2002	Thundersto		A microburst took down trees in the L.B.K. Circle subdivision with two trees falling on	39
5339957	LINCOLN CO.	LINCOLNTC	2/22/2003	Thundersto		Sheriff reported treesdown.	40
5354210	LINCOLN CO.	LINCOLNTC	6/13/2003	Thundersto		Sheriff reported trees down on a vehicle on Lewis Family road.	42
5367698	LINCOLN CO.	LINCOLNTC	7/10/2003	Thundersto		Sheriff reported trees and powerlines down in Lincolnnton.	43
5395211	LINCOLN CO.	LINCOLNTC	6/23/2004	Thundersto		Emergency Management reported trees down in Midway.	44
5440138	LINCOLN CO.	LINCOLNTC	4/30/2005	Thundersto		Utility company reported powerlines down on Daniel Marshall Camp rd.	47
5511421	LINCOLN CO.	LINCOLNTC	7/15/2006	Thundersto		Rock Branch Golf Course reported several trees down on the course.	50
5511075	LINCOLN CO.	LINCOLNTC	7/28/2006	Thundersto		Emergency Manager reported numerous trees down in Elijah Creek State Park. One	51
3669	LINCOLN CO.	LINCOLNTC	1/5/2007	Thundersto	Sheriff rep	Cluster of thunderstorms over CSRA produced some minor wind damage.	52
42610	LINCOLN CO.	LINCOLNTC	8/17/2007	Thundersto	DOT report	Clusters of Pulse storms developed over the CSRA and produced some wind damage and hail.	54
74126	LINCOLN CO.	LINCOLNTC	3/4/2008	Thundersto	Dispatch re	A squall line moved throug the CSRA and produced wind damage from straight line winds and several downburst.	55
95799	LINCOLN CO.	LINCOLNTC	6/22/2008	Thundersto	Sheriff rep	Clusters of Pulse Thunderstorms produced some wind damage and large hail.	61
122532	LINCOLN CO.	LINCOLNTC	8/30/2008	Thundersto	Real Electri	Isolated storms moved through the CSRA producing some severe weather in Lincoln county.	64
187549	LINCOLN CO.	LINCOLNTC	6/18/2009	Thundersto	County pag	Shortwaves moving around a large ridge of high pressure to our west produced a complex of thunderstorms that moved southeast across the Central Savannah River Area.	68

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
198403	LINCOLN CO.	LINCOLNTC	12/2/2009	Thundersto	Sheriff rep	Heavy rain saturated soils across the area and wind gusts of 40 to 50 mph toppled a few trees in the CSRA.	69
203079	LINCOLN CO.	LINCOLNTC	1/24/2010	Thundersto	Sheriff rep	A squall line moved through the CSRA and took down some trees and powerlines.	71
229079	LINCOLN CO.	LINCOLNTC	6/29/2010	Thundersto	Public rep	Microbursts from isolated severe thunderstorms produced wind damage in the northern CSRA.	76
232230	LINCOLN CO.	LINCOLNTC	7/11/2010	Thundersto	Sheriff rep	An isolated severe thunderstorm took down some trees in Lincoln County.	77
263143	LINCOLN CO.	LINCOLNTC	11/30/2010	Thundersto	Sheriff rep	A squall line ahead of a strong cold front produced wind damage around portions of the CSRA taking down trees and powerlines.	79
299910	LINCOLN CO.	LINCOLNTC	6/15/2011	Thundersto	Sheriff rep	A strong line of severe thunderstorms moved through the CSRA and produced a lot of wind damage, mainly trees being uprooted or snapped off and powerlines being taken down.	83
302071	LINCOLN CO.	LINCOLNTC	6/21/2011	Thundersto	Sheriff rep	Clusters of severe thunderstorms moved through the CSRA and produced wind damage and some hail. Damage was mainly to trees, some of which fell on homes.	86
359314	LINCOLN CO.	LINCOLNTC	3/3/2012	Thundersto	Dispatch re	A squall line moved through the CSRA and took down some trees and powerlines.	88
380629	LINCOLN CO.	LINCOLNTC	7/1/2012	Thundersto	Sheriff rep	Several severe thunderstorms developed over the CSRA producing large hail and wind damage. Hail sizes were mostly quarter to golfball size. The Insurance News Service reported 1 to 2 million dollars in claims.	91
446905	LINCOLN CO.	LINCOLNTC	6/18/2013	Thundersto	Dispatch re	A few thunderstorms produced some microbursts that took down trees and powerlines.	93
632555	LINCOLN CO.	LINCOLNTC	6/14/2016	Thundersto	Reported p	A stalled frontal boundary across North Carolina produced strong damaging wind gusts across the northern CSRA.	101
697118	LINCOLN CO.	LINCOLNTC	5/29/2017	Thundersto	Lincoln Co	An upper level impulse combined with atmospheric instability and deep layer shear to produce scattered severe thunderstorms that produced wind damage and hail.	108
763084	LINCOLN CO.	LINCOLNTC	6/25/2018	Thundersto	Lincoln Co	Strong daytime heating combined with a surface trough, an approaching cold front, and colliding outflow boundaries to produce widespread severe thunderstorms across the CSRA of GA and the Midlands of SC during the afternoon and evening.	112

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
809891	LINCOLN CO.	LINCOLNTC	4/14/2019	Thundersto	Medium siz	A band of showers and thunderstorms, along a cold front, moved through the region, an isolated cell or two reached severe limits.	115
831195	LINCOLN CO.	LINCOLNTC	7/18/2019	Thundersto	Trees and p	An upper and surface trough and daytime heating led to scattered severe thunderstorms in the afternoon and evening.	125
831196	LINCOLN CO.	LINCOLNTC	7/18/2019	Thundersto	Power line	An upper and surface trough and daytime heating led to scattered severe thunderstorms in the afternoon and evening.	126
1007190	LINCOLN CO.	LINCOLNTC	4/6/2022	Thundersto	Trees down	An upper level disturbance and the interaction of surface boundaries, along with increasing moisture, led to thunderstorms that developed and moved east across the region during the afternoon. Sufficient atmospheric instability and shear led some of the thunderstorms to produce damaging wind and tornadoes, along with locally heavy rain.	136
1147259	LINCOLN CO.	LINCOLNTC	1/9/2024	Thundersto	Trees and p	Strong upper level and surface areas of low pressure moved NE into the Midwest, while a cold front along with a secondary weak low, formed and moved through the area. Gradient wind gusts, along with enhanced wind gusts associated with severe thunderstorms and a strong low level jet, resulted in widespread tree damage.	141
5602084	LINCOLN CO.	LINCOLNTC	7/16/1997	Thundersto	Sheriff reports	Sheriff reports numerous trees down throughout Lincoln county.	17
884344	LINCOLN CO.	LOCO	4/13/2020	Thundersto	Trees down	A squall line rolled through the region during the early morning hours of April 13, 2020. Strong instability and shear led to numerous severe thunderstorm wind gusts along with several tornadoes. Across East Central GA, one EF-2 tornado occurred.	132
232160	LINCOLN CO.	LOCO	7/12/2010	Thundersto	Sheriff rep	A few severe thunderstorms in the western CSRA took down some trees.	78
845980	LINCOLN CO.	LOCO	8/18/2019	Thundersto	Tree down	An isolated severe thunderstorm occurred.	127

Severe Weather Lincoln County							
EVENT_ID	CZ_NAME_STR	BEGIN_LOC	BEGIN_DATE	EVENT_TYP	EVENT_NAM	EPISODE_NARRATIVE	ABSOLUTE_
1147260	LINCOLN CO.	LOCO	1/9/2024	Thundersto	Trees and p	Strong upper level and surface areas of low pressure moved NE into the Midwest, while a cold front along with a secondary weak low, formed and moved through the area. Gradient wind gusts, along with enhanced wind gusts associated with severe thunderstorms and a strong low level jet, resulted in widespread tree damage.	142
299912	LINCOLN CO.	MARTINS X	6/15/2011	Thundersto	Sheriff repo	A strong line of severe thunderstorms moved through the CSRA and produced a lot of wind damage, mainly trees being uprooted or snapped off and powerlines being taken down.	84
532124	LINCOLN CO.	MARTINS X	9/3/2014	Thundersto	DOT report	A couple of isolated severe thunderstorms took down some trees in Lincoln County.	97
5610101	LINCOLN CO.	NEW HOPE	9/10/1997	Thundersto	Post Office	Post Office reports large branches down in town.	19
5691363	LINCOLN CO.	NEW HOPE	5/6/1999	Thundersto	Sheriff report	Sheriff reported powerlines down across southern Lincoln county.	29
517996	LINCOLN CO.	NEW HOPE	7/3/2014	Thundersto	Dispatch re	A few thunderstorms produced some damaging winds taking down trees and taking a roof off of an outbuilding.	96
864483	LINCOLN CO.	NEW HOPE	1/11/2020	Thundersto	A tree was c	A line of thunderstorms, some severe, moved through the region during the evening, producing some wind damage.	130
763142	LINCOLN CO.	THMSON M	6/26/2018	Thundersto	Trees down	Upper energy combined with daytime heating and a front to the north to produce a band of thunderstorms that moved SE through the CSRA of GA and the Midlands of SC during the late afternoon and evening.	113

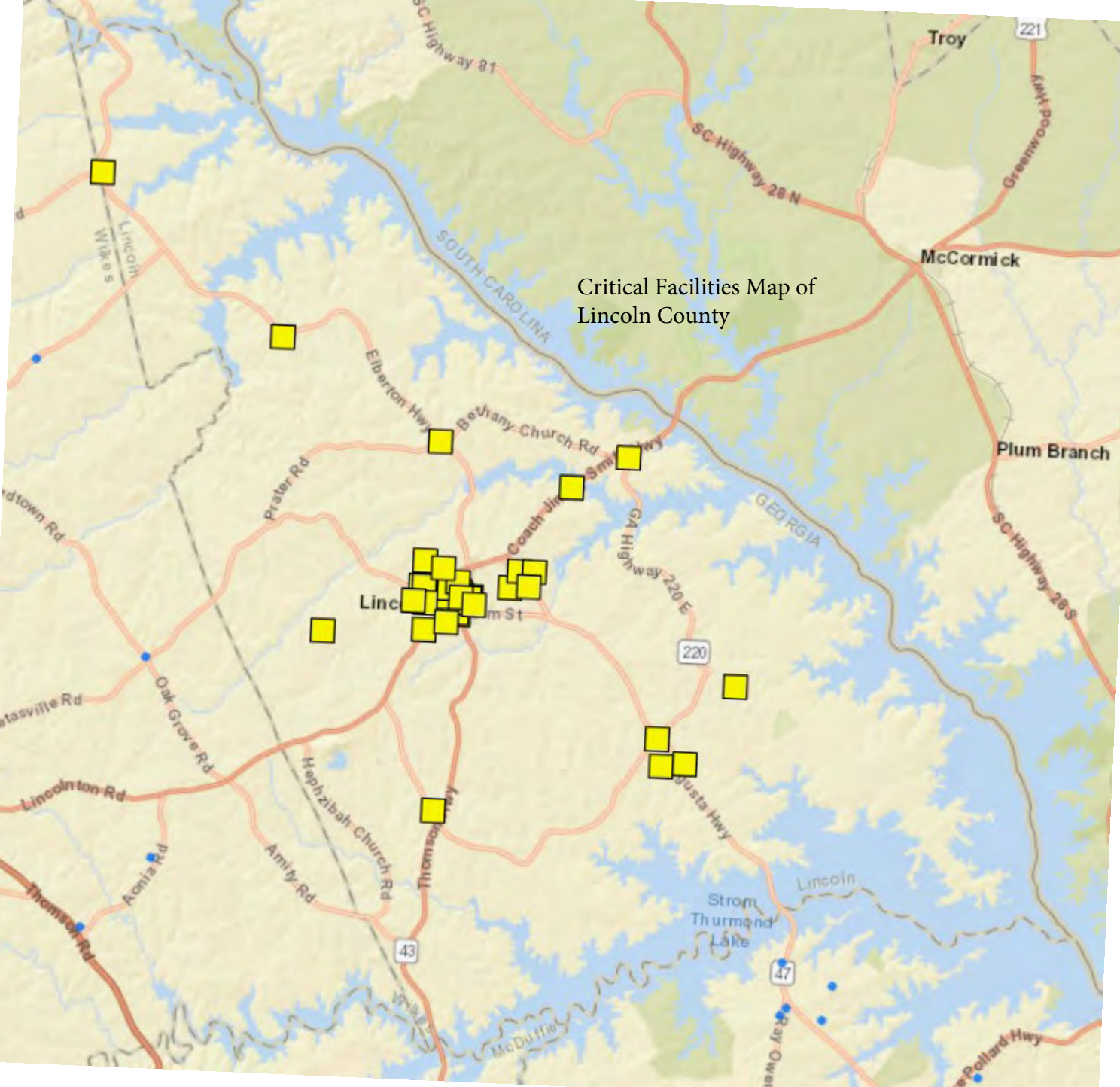
Winter Storm - Lincoln County							
EVENT_ID	CZ_NAME_	BEGIN_DATE	EVENT_TYP	INJURIES_	END_DATE	END_TIME	EPISODE_NARRATIVE
5277523	LINCOLN (2	1/2/2002	Winter Stor	0	1/3/2002	1700	Four to 6 inches of snow fell over Lincoln county taking down trees and powerlines.
5381680	LINCOLN (2	1/26/2004	Ice Storm	2	1/27/2004	1200	An ice storm developed over the CSRA late Sunday night and Monday and produced 1/4-3/4 inch of ice. The heaviest ice accumulations occurred in Lincoln, Columbia, and McDuffie counties. Many trees and powerlines were down causing scattered power outages. About 100,000 homes were without power for several days. Four people were injured in traffic related accidents and one person was killed in Loncoln county when a tree fell on his vehicle.
5434214	LINCOLN (2	1/29/2005	Ice Storm	0	1/30/2005	400	An ice storm started late Friday night and continued off and on through Saturday night. Most areas received a quarter of an inch of ice on trees and other structures. Some areas received a quarter to a half an inch of ice. These areas had some power outages which were of short duration. Overpasses and bridges iced up but ground temperatures of roadways kept the rain from freezing on them. Still, there were many accidents from people losing control when driving over the bridges and overpasses.
7231	LINCOLN (2	2/1/2007	Winter Stor	0	2/1/2007	1000	Isentropic lifting over an existing wedge produced 1/4 inch if freezing rain and around an inch of snow and sleet in Licoln county.
148702	LINCOLN (2	3/2/2009	Winter Wea	0	3/2/2009	200	A low pressure system moved across central Georgia and produced 1 to 2 inches of snow in northern Lincoln county.
205924	LINCOLN (2	2/12/2010	Winter Stor	0	2/13/2010	0	A low pressure system tracked across Northern Florida which produced heavy snow on the north side of the storm system. Snow fell from the Florida panhandle northeast to Virginia. Amounts in the CSRA ranged from 4-7 inches.
265785	LINCOLN (2	12/26/2010	Winter Stor	0	#####	1130	A low pressure system moved through the Gulf of Mexico then up the east coast bringing snow to much of the Midlands of South Carolina and wester portions of the CSRA. Amounts ranged from 1 to 3 inches in McDuffie, Columbia, and Lincoln counties. Less than an inch was reported elsewhere in the CSRA.
267099	LINCOLN (2	1/10/2011	Winter Stor	0	1/11/2011	100	A low pressure system moved through the Gulf of Mexico and across northern Florida producing snow, sleet and freezing rain across the southeast U.S. Heavy snow fell across the CSRA and lower Midlands of South Carolina with accumulations of 1 to 6 inches. Burke county had mainly sleet and freezing rain with ice accumulations of 1/2 inch. Power outages were reported throughtout the area but it wasn't widespread.

Winter Storm - Lincoln County							
EVENT_ID	CZ_NAME_1	BEGIN_DATE	EVENT_TYP	INJURIES_1	END_DATE	END_TIME	EPISODE_NARRATIVE
486067	LINCOLN (2	1/28/2014	Heavy Snow	0	1/29/2014	500	A low pressure system moving up the GA/SC coast produced freezing rain, sleet, and snow over the CSRA closing schools, businesses, and some highways. Snow amounts of 1 to 3 inches were common across the area.
488200	LINCOLN (2	2/12/2014	Ice Storm	0	2/13/2014	600	A major winter storm spread into Georgia and South Carolina producing up to 1 inch of ice taking down trees, powerlines, and causing damage to other structures. Just about everything came to a standstill as federal, state, county, and city governments closed along with schools and businesses. Power outages were widespread and it took up to four days to restore in some areas.
993595	LINCOLN (2	1/21/2022	Winter Wea	0	1/22/2022	0	A cold front shifted south through the region on January 20th, allowing cool and dry air from a polar air mass to begin filtering into the region. The front stalled to our south on January 21st, while upper level energy approached the region, and a wave of low pressure moved NE along the stalled front offshore. This allowed precipitation to spread into, or develop over, our region during the afternoon of January 21st. The precipitation generally started out as light rain then it transitioned to light freezing rain, sleet, and/or snow, or a combination thereof, as low level temperatures continued to fall. The precipitation continued through the evening then shifted out of the region generally after midnight. Total snow and ice amounts were light, with minimal impact.

Date	Magnitude	Epicenter and Distance Felt	Estimated Losses
08/02/1974	4.3	33.87 N, 82.49W and felt up to 8 km away	NR
11/05/1974	3.7	33.73 N, 82.22 W and felt up to 24 km away	NR
12/03/1974	3.6	33.95 N, 82.50 W and felt up to 17 km away	NR
01/03/1992	3.2	33.95 N, 82.46 W and felt up to 17 km away	NR
09/02/2001	2.7	33.79 N, 82.35 W and felt up to 11 km away	NR
03/14/2007	2.1	33.78 N, 82.32 W and felt up to 15 km away	NR
07/19/2007	2.7	33.61 N, 82.35 W and felt up to 23 km away	NR
03/25/2015	2.5	33.759°N 82.388°W depth 15.8 km	NR
04/07/2013	2.5	33.860°N 82.456°W depth 6.1 km	NR
04/16/2013	2.2	33.876°N 82.457°W depth 6.1 km	NR
04/23/2013	1.9	33.871 N 82.463W 0.0 km	NR
04/26/2013	2.1	33.774°N 82.403°W depth 10.2 km	NR
04/26/2013	2.8	33.776°N 82.377°W depth 12.0 km	NR
04/26/2013	2.2	33.779°N 82.388°W depth 10.1 km	NR
04/27/2013	2.3	33.776°N 82.381°W depth 5.3 km	NR

Lincoln County Earthquake Events

Critical Facilities Map of
Lincoln County



APPENDIX B

GROWTH AND DEVELOPMENT TRENDS COMMUNITY INFORMATION

COVER SHEET FOR COMMUNITY PLANNING SUBMITTALS

Name(s) of Submitting Government(s): Lincoln County; City of Lincolnton

RC: CSRARC

Submittal Type: Comp Plan Update

Preparer: ☒ RC ☐ Local Government ☐ Consultant: Specify

Cover Letter Date: 3/13/23

Date Submittal Initially Received by RC: 3/13/2023

Explain Unusual Time-lags or Other Anomalies, when present:

Inaccurate/incomplete information, above, and nonconformity with the standards articulated, below, are reportable as performance errors under the terms of the annual DCA/RC contract and may lead to adverse audit findings.

- ALL SUBMITTALS MUST BE TRANSMITTED ELECTRONICALLY USING THE DEPARTMENT'S SHAREPOINT SITE.
- COMBINE ALL INDIVIDUAL IMAGES, DOCUMENTS AND SPREADSHEETS INTO ONE SINGLE, SEARCHABLE PDF (INCLUDING COVER LETTERS, APPENDICES, ETC.), PUT THIS COMPLETED FORM AS THE FIRST PAGE OF THE PDF AND THEN UPLOAD IT.
- REVISED SUBMITTALS MUST INCLUDE THE ENTIRE DOCUMENT, NOT ONLY THE REVISED PORTION.
- EMAILED OR HARDCOPY MATERIALS CANNOT BE ACCEPTED.
- ALL SUBMITTALS MUST BE CHanneled THROUGH THE APPROPRIATE REGIONAL COMMISSION.

**A Resolution of Lincoln County for the Adoption of
the
Lincoln County Joint Comprehensive Plan
2023-2028**

WHEREAS, the Lincoln County Board of Commissioners, the governing authority of Lincoln County in conjunction with the City of Lincolnton, Georgia, has prepared the *Lincoln County Joint Comprehensive Plan 2023-2028* to replace their prior joint comprehensive plan and joint comprehensive plan update and,

WHEREAS, the *Lincoln County Joint Comprehensive Plan 2023-2028* was prepared in accordance with the Rules and Procedures of the Georgia Department of Community Affairs; and,

WHEREAS, the *Lincoln County Joint Comprehensive Plan 2023-2028* has been reviewed by the Central Savannah River Area Regional Commission and the Georgia Department of Community Affairs and found to be in compliance with the minimum "Standards and Procedures for Local Comprehensive Planning;"

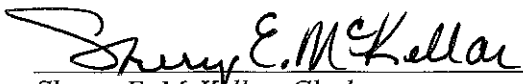
NOW, THEREFORE, BE IT RESOLVED by the Lincoln County Board of Commissioners that the *Lincoln County Joint Comprehensive Plan 2023-2028* is hereby adopted and that a copy of this resolution shall be submitted to the Central Savannah River Area Regional Commission.

Adopted this 9 day of March, 2023



Walker T. Norman, Chairman
Lincoln County Board of Commissioners

ATTEST:



Sherry E. McKellar, Clerk
Lincoln County



**A Resolution of the City of LINCOLNTON for Adoption of the
LINCOLN County
Joint Comprehensive Plan: 2023-2028**

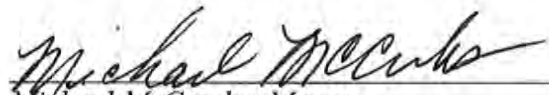
WHEREAS, the Lincolnton City Council, the governing authority of the City of Lincolnton, Georgia, has prepared the *Lincoln County Joint Comprehensive Plan: 2023-2028* to replace their prior comprehensive plan and comprehensive plan update and,

WHEREAS, the *Lincoln County Joint Comprehensive Plan: 2023-2028* was prepared in accordance with the Rules and Procedures of the Georgia Department of Community Affairs; and,

WHEREAS, the *Lincoln County Joint Comprehensive Plan: 2023-2028* has been reviewed by the Central Savannah River Area Regional Commission and the Georgia Department of Community Affairs and found to be in compliance with the minimum "Standards and Procedures for Local Comprehensive Planning;" and,

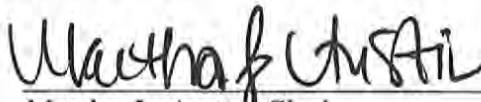
NOW, THEREFORE, BE IT RESOLVED by the Lincolnton City Council that the *Lincoln County Comprehensive Plan: 2023-2028* is hereby adopted and that a copy of this resolution shall be submitted to the Central Savannah River Area Regional Commission.

Adopted this 7th day of March, 2023



Michael McCombs, Mayor
City of Lincolnton

ATTEST:



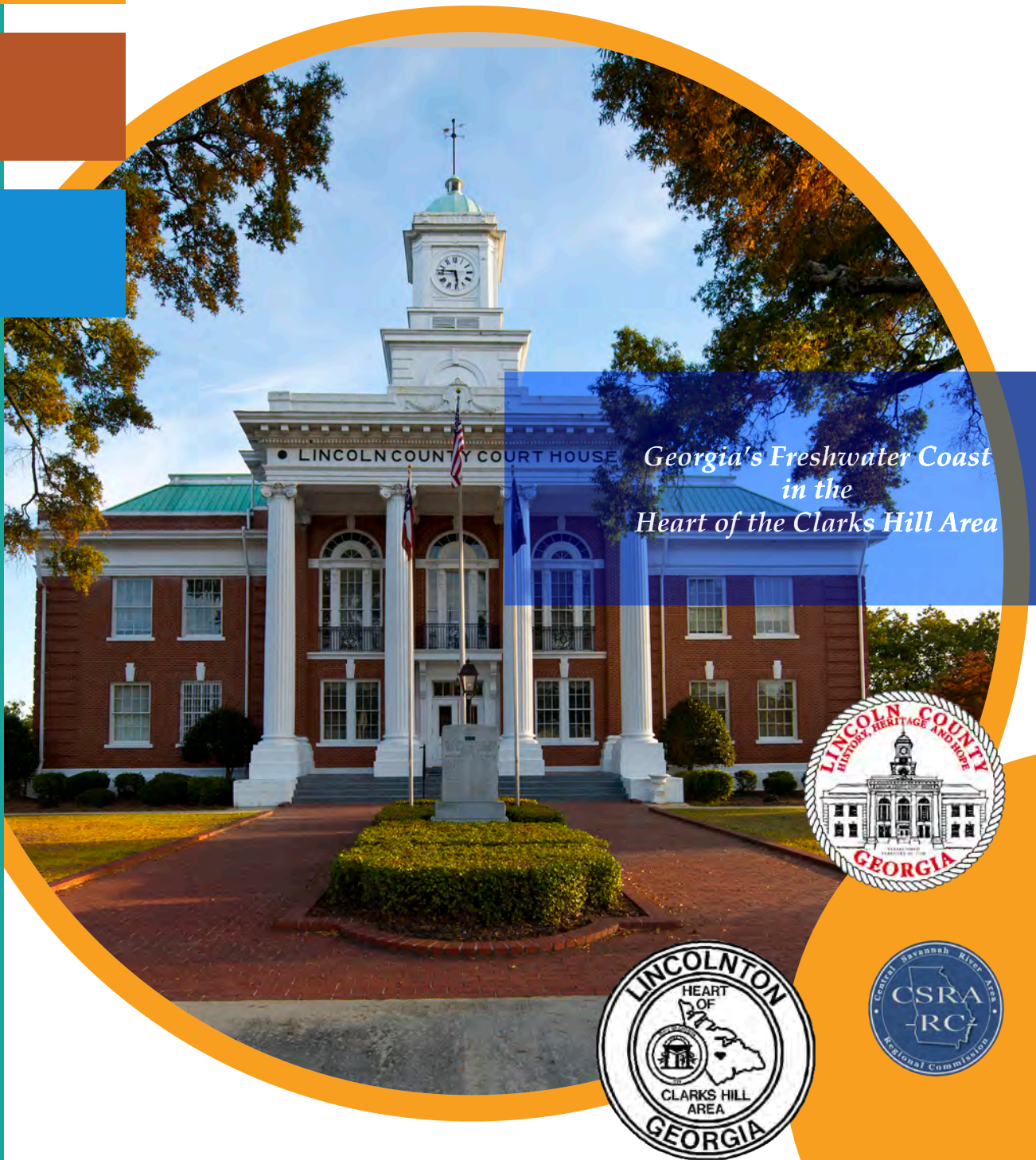
Martha Jo Austin, Clerk
City of Lincolnton

Lincoln Co.

2023-2028

Joint Comprehensive Plan

CREATED WITH LINCOLNTON, GA



Prepared for:

The Chairman and County Board of Commissioners
Lincoln County
210 Humphrey Street
P.O. Box 340
Lincolnton, Georgia 30817
Phone: 706-359-4729

Adopted: March 9, 2023

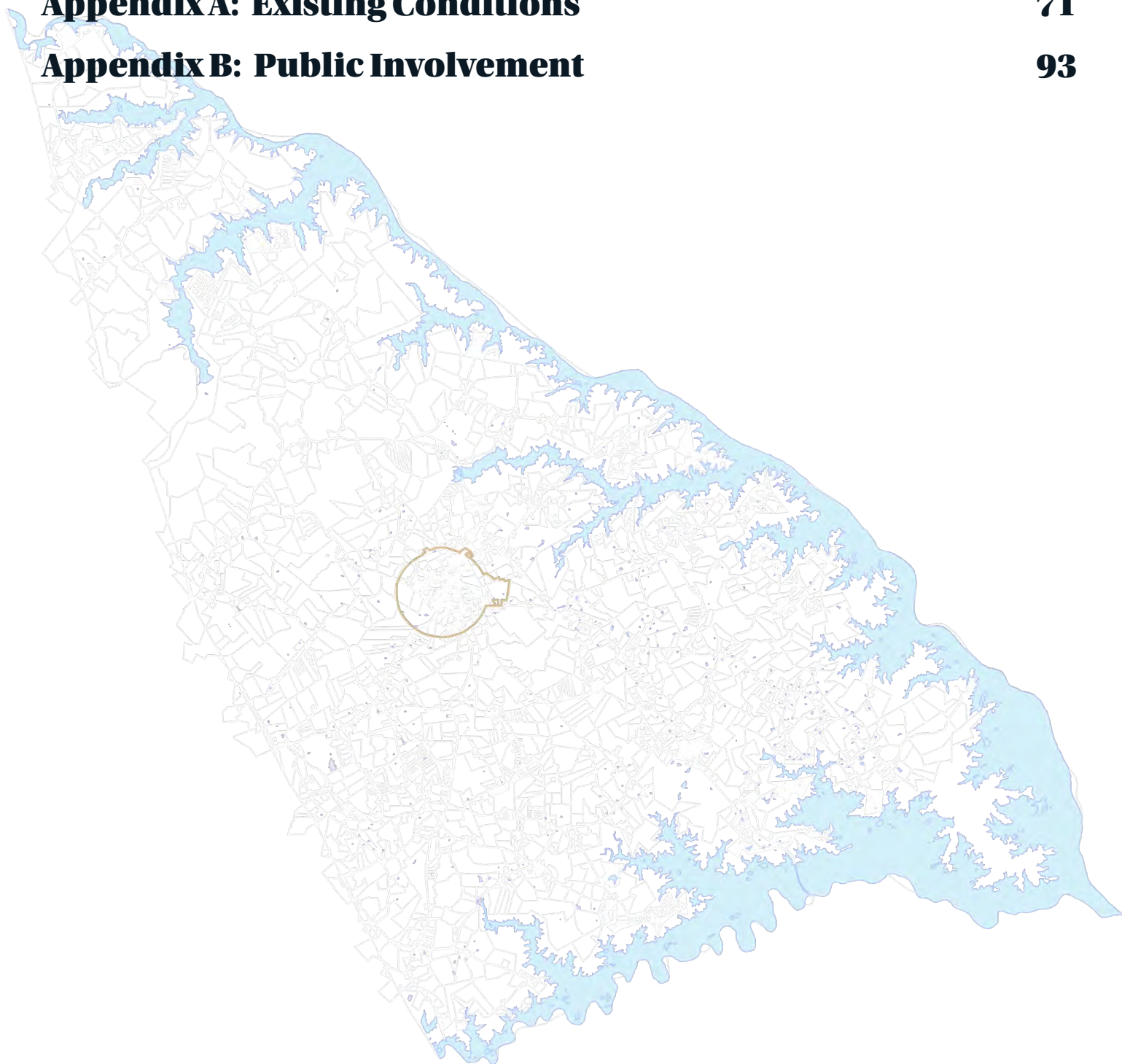
The Mayor and City Council
City of Lincolnton
125 North Peachtree Street
P.O. Box 489
Lincolnton, Georgia 30817
Phone: 706-359-3239

Adopted: March 7, 2023

The Chairman and County Commissioners and the Mayor and City Council acknowledge the input and efforts of all individuals who contributed to the creation of this comprehensive plan document.

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Introduction

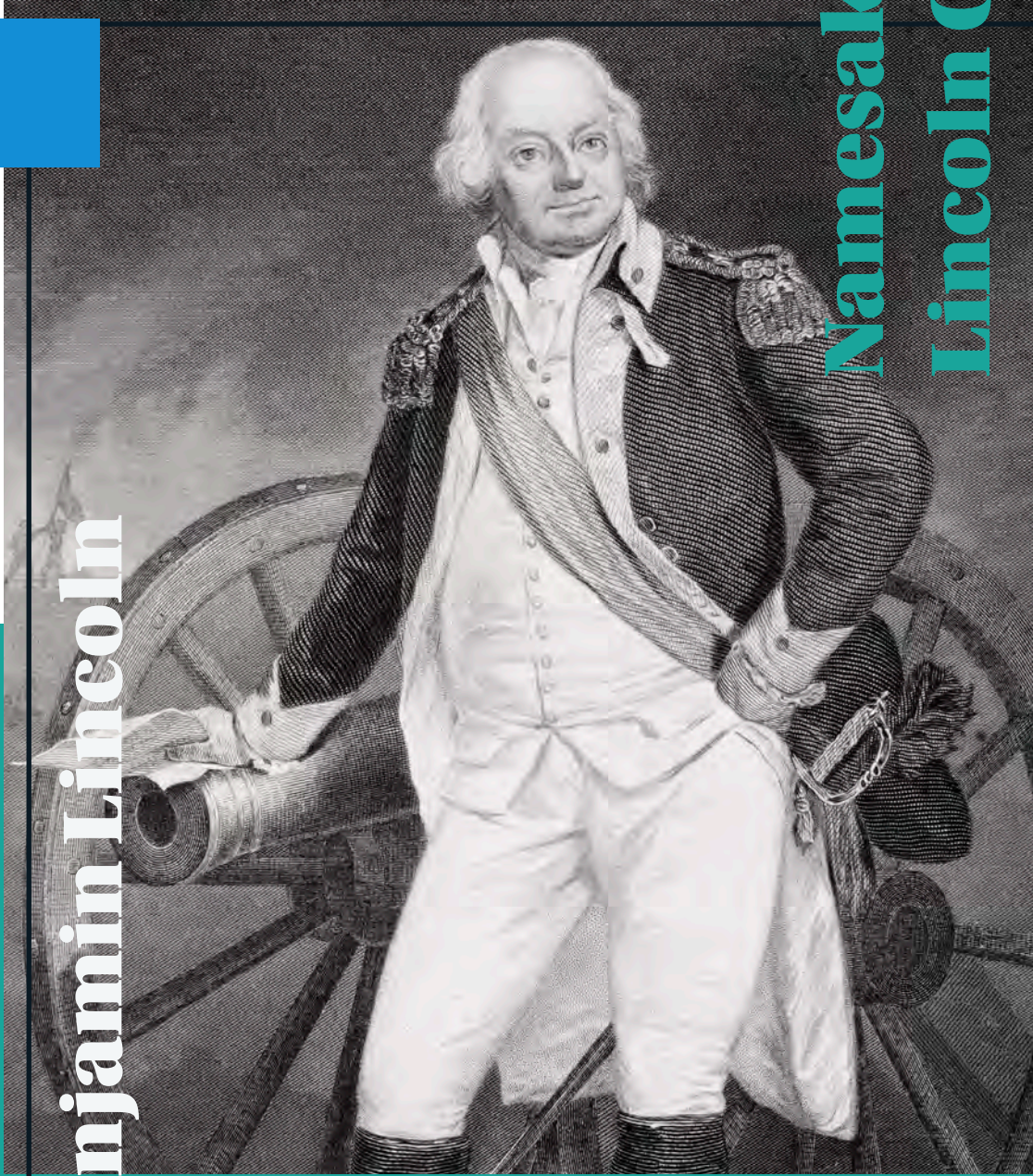
Every county and city encounters change. When properly guided, this change can bring about positive growth. Every community should plan for its future development - looking ahead with a vision of how to make the environment a better one for citizens. Each community has assets that can be used to enhance growth and prosperity in business, industry, recreation, and tourism to make happen the vision that was mapped out through planning.

This Lincoln County Joint Comprehensive Plan: 2023-2028 has utilized the work of leaders in the community, elected officials, civic and historic organizations, department staff, and citizen input, to collaboratively create this document. This Plan is based on the standards and principles of the Georgia Department of Community Affairs, “Minimum Standards and Procedures for Local Comprehensive Planning,” (Chapter 110-12-1, O.C.O.G. 50-8-7.1(b)). It is hoped the vision for these communities is realistic, yet optimistic for future for growth that will make an impact for all people. The County and the City have worked well together as they have put together a five-year plan for a better tomorrow for residents and visitors to the community.

Lincoln County and the City of Lincolnton are extremely proud of their heritage. The county is named for General Benjamin Lincoln, General George Washington’s adjunct, who accepted the sword of surrender at Yorktown from British General O-Hara (Cornwallis’ second in command). The Lincoln County Historical Society has carried on a tradition of public living history demonstrations with its collection of historic buildings. The City of Lincolnton has one of the finest collections of historic buildings in the state, documented through a citywide National Register of Historic Places listing.

Gen. Benjamin Lincoln

Namesake of Lincoln County



What is a Comprehensive Plan?

The comprehensive plan is a unified document encouraging overarching consistency and coherence in county and municipal policies, guiding future community growth. It is designed to facilitate a coordinated planning program that ultimately leads to desired future social and economic outcomes for both jurisdictions. It serves as a guide to both the public and private sector, providing guidance on items such as land development, housing improvements, economic development, cultural/environmental asset protection, and provision of community services and facilities.

The comprehensive plan is structured as a dynamic document that should be amended when local priorities or conditions change. Periodic updates are necessary to ensure that the document's stated policies align with the needs and aspirations of residents. The current comprehensive planning effort addresses these changes and integrates new or evolving priorities among residents and community leaders.

How to use the Plan

This comprehensive plan is a guide for action and is intended to serve as a reference for potential users. A member of the City Council, Board of Commissioners or government staff should refer to this plan's policies when deciding on the approval of a rezoning or location of new development. Companion planning documents should be used in conjunction with the comprehensive plan. These include but are not limited to the CSRA Regional Plan, the Lincoln County Solid Waste Management Plan, the plans of other nearby jurisdictions, the Regional Water Plan, the CSRA Regionally Important Resource Plan, and other local and state regulatory documents (e.g. zoning ordinance, subdivision regulations).

Unlike sector or single issue planning documents, which generally refer to issues such as transportation, economic development, parks and recreation, annexation and community services, the comprehensive plan addresses these issues in a coordinated manner. Decisions should follow the comprehensive plan. If at some point the comprehensive plan no longer reflects the path the City or County wishes to take, it should be amended.

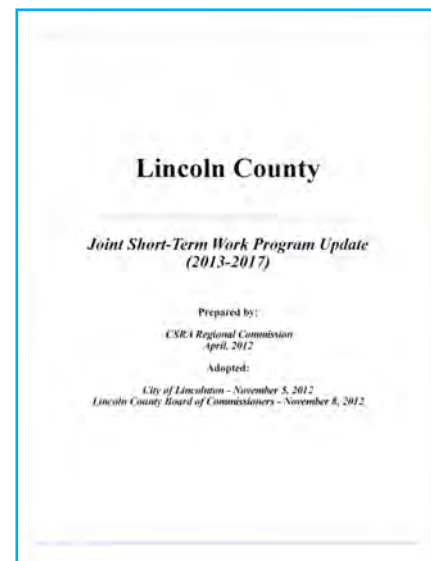
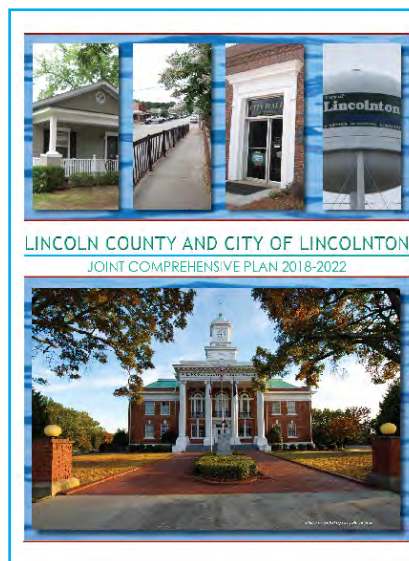
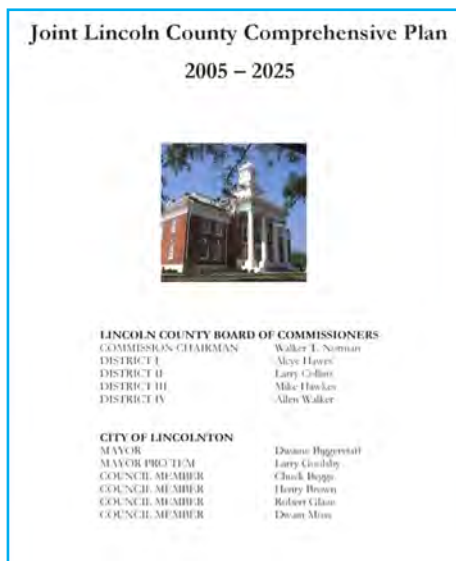
Comprehensive plans prepared in Georgia that are consistent with the DCA standards include a strategic planning component called the "community work program" (CWP). The five-year CWP lists measurable projects that will be undertaken, consistent with the stated comprehensive plan goals.

PRIOR PLANS

The Minimum Standards for Local Comprehensive Planning have evolved through past years to make the comprehensive plans more of a user-friendly document for community members. The Lincoln County joint plan 2005-2025 (a 20-year vision) included many of the same elements as today: population, housing, economic development, natural resources, cultural resources, community facilities and services, land use, intergovernmental coordination, and a five-year short term work program (2005-2009).

The next plan, Lincoln County Joint Comprehensive Plan: Partial Update 2010-2015 reflected the state's newly adopted approach to meeting planning requirements. Elements in this plan included a quality community objectives assessment, analysis of areas requiring special attention, identification of issues and opportunities, and an updated implementation program that had the short term work program.

In transition, the Georgia Department of Community Affairs offered an option to defer a full plan update that was required every ten years with the option to develop a short term work program every five years. Both jurisdictions opted to defer their full plan update to 2018, but revised their short term work program from 2013-2017. As of 2018 when the last full plan update was conducted, full plan updates were required every 5 years.

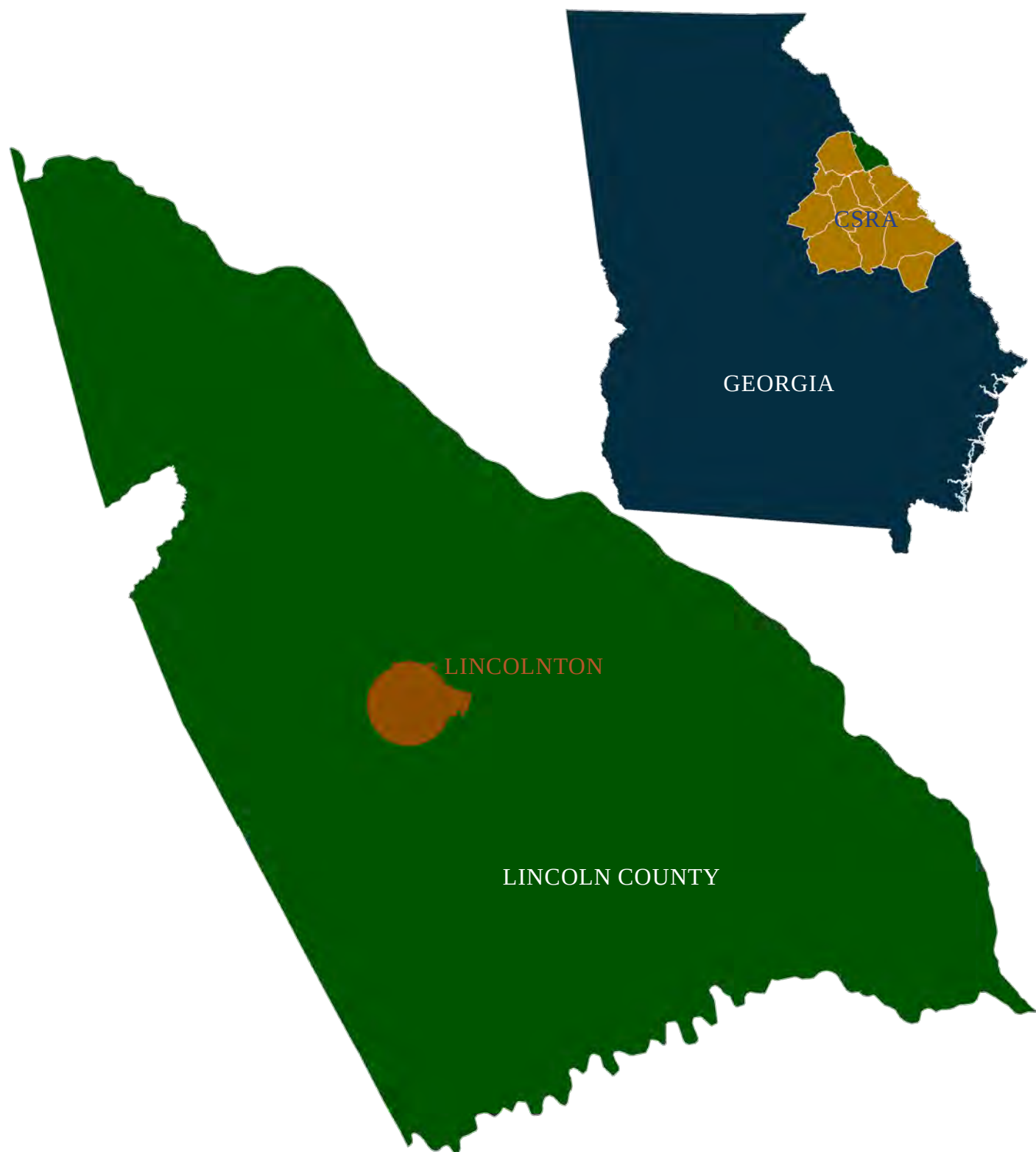


PLAN COMPONENTS

The comprehensive plan document includes the following required and elective components:

- Community Goals
- Needs and Opportunities
- Report of Accomplishments
- Community Work Program
- Public Involvement Overview
- Economic Development
- Land Use
- Housing
- Broadband Services
- Natural and Cultural Resources
- Community Facilities

All state-required comprehensive planning components and additional elective elements listed are distributed throughout the Lincoln County Joint Comprehensive Plan in various chapters and appendices.



COMMUNITY SNAPSHOT

The data below was provided by the U.S. Census Bureau's 2020 Decennial Census and 2020/2021 American Community Survey 5-year estimates.



POPULATION

Lincoln County: 7,690

Lincolnton: 1,480

TOTAL HOUSEHOLDS

Lincoln County: 2,953

Lincolnton: 688

RESIDENTS 65 YEARS AND OLDER

Lincoln County: 24.1%

Lincolnton: 26.0%



EMPLOYMENT RATE

Lincoln County: 47.5%

Lincolnton: 41.2%

MEDIAN AGE

Lincoln County: 47.1

Lincolnton: 48.9

TOTAL HOUSING UNITS

Lincoln County: 4,389

Lincolnton: 670



MEDIAN HOUSEHOLD INCOME

Lincoln County: \$44,087

Lincolnton: \$35,299

RESIDENTS WITH BACHELOR'S OR HIGHER

Lincoln County: 13.3%

Lincolnton: 17.8%

RESIDENTS WITHOUT HEALTH COVERAGE

Lincoln County: 14.6%

Lincolnton: 17.8%

Introduction



PUBLIC INVOLVEMENT OVERVIEW

The shared vision, goals, and objectives of a community are the essence of putting together a comprehensive plan. The Georgia Department of Community Affairs guidelines for “Minimum Standards and Procedures for Local Comprehensive Planning” emphasize public participation as part of the process that provides an opportunity to consider all community needs.

Public input is a necessary component for the creation and completion of a comprehensive plan document. Lincoln County and the City of Lincolnton appointed a Stakeholder Committee that represented: elected officials, economic development interests, community leadership, and jurisdiction staff. Meetings of the Stakeholder Committee were held to guide the plan, assisted by the CSRA Regional Commission. The team also utilized a community survey and promoted it on social media. Plan documents were made available in print and online.

Two public hearings were held as part of the plan process on: September 7, 2022 and February 13, 2023. The first public hearing was held at the beginning of the plan process to inform the community of the process to develop the plan, how the public could participate, and to voice input on the planning process. The second public hearing was held once the draft plan was made available for the public for comment. The public could make final suggestions for revision. The public was informed that the plan must be transmitted to the CSRA Regional Commission for review and then onward to the Georgia Department of Community Affairs for compliance review with the Minimum Standards for Planning.

Stakeholder Committee members for this process were:

Micheal McCombs, Mayor of Lincolnton
Walker Norman, Lincoln County Chairman
Cooper Cliatt, Lincoln County Commission
Robert Seymour, Lincoln County Public Works Director
Stephanie Eicher, Lincoln County Planner
Christine McNeese, Lincoln County Development Authority
Alana Burke, Lincolnton City Council
Martha Jo Austin, Lincolnton City Clerk
Daravios Cullars, Lincoln County Family Connection
Larry Goolsby, City of Lincolnton

The stakeholder committee met on the following dates:

August 23, 2022 | September 27, 2022 | January 26, 2023



Community Vision

“Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody!”

- Jane Jacobs, *The Death and Life of Great American Cities*

This section of the plan articulates several critical components helping Lincoln County and the City of Lincolnton become the communities they want to be.

The following are included:

SWOT Analysis
Needs & Opportunities
Community Goals
Future Development: Character Areas





SWOT Analysis

Based on the community survey, stakeholder conversations and available data, the CSRA-RC staff compiled a list of Strengths, Weaknesses, Opportunities, and Threats (SWOT). The SWOT results were used in identifying community needs and opportunities and examining potential community projects.

Questions considered during the SWOT process include:

- What does the city/county do well?
- What advantages does it have over other places?
- What unique resources/knowledge can it draw on?
- What could the city/county improve upon?
- Where does it have fewer resources than other places?
- What knowledge is lacking?
- What opportunities are open to the city/county?
- What trends could it take advantage of?
- How can the city/county turn its strengths into opportunities?
- Are there programs/partnerships the city/county can expand?
- What threats could harm/inhibit city/county operations?
- What are the county and nearby cities doing?
- What threats do the city's/county's weaknesses expose it to?

STRENGTHS

1. Small town/rural community
2. Clarks Hill Lake
3. Excellent school system
4. Lincoln county historical park
5. Development Opportunities
6. Historic downtown
7. Parks and campgrounds
8. Water and sewer systems
9. Close proximity to Columbia County, Ft. Gordon, and metro area
10. Low crime rate
11. Downtown streetscape and sidewalks
12. Broadband availability

WEAKNESSES

1. Lack of businesses (fast food, restaurants, and grocery stores)
2. Vacant buildings downtown
3. Dirt roads
4. Lack of cell reception (northern end of the county)
5. Lack of housing (rental and starter homes)
6. Transportation (distance to interstate 20, no rail, no 4-lane highways)
7. Lack of county sewer in rural areas
8. Parking downtown
9. Lack of entertainment options
10. Lack of childcare options
11. Lack of sidewalks in neighborhoods
12. Dilapidated buildings

OPPORTUNITIES

1. Vacant buildings downtown (retail space and loft space)
2. Land available for residential development (lake and rural large tracts)
3. Land available for industry
4. Increasing the number of local festivals
5. Small business community
6. Development of lake areas
7. New business growth
8. Develop old high school lot into a farmers' market
9. Build a boat house for a rowing club
10. Create a blight program for dilapidated buildings
11. Promotion of the new county recreation arena
12. Create additional community gathering space downtown
13. Utilize sewer easements to create public walking trails in the city
14. Redevelop existing buildings (e.g. the old hotel)
15. Expand recreation options

THREATS

1. Lack of stores and entertainment options
2. Development of surrounding areas.
3. Lack of good paying jobs to young families
4. Lack of rental property and starter homes
5. Lack of funding for big projects
6. Residents need to travel out town for basic needs such as groceries and medical



Needs and Opportunities

The needs and opportunities included in this section of the plan present issues to address and possibilities to pursue. These items were generated during the 2022 comprehensive planning process utilizing: input from the stakeholder committee, data review, a community survey, and SWOT analysis. They also informed other parts of the plan, including goals and work program activities. As a reminder, these aren't the only possible needs and opportunities for the city and county, and this document is flexible to change as the communities do.

ECONOMIC DEVELOPMENT

Needs	Opportunities
Downtown needs a merchant committee or DDA for resolving aesthetic and other issues to work with the City.	The Lincolnnton historic preservation commission could be re-activated.
Downtown has a lack of parking.	Dilapidated/unused buildings could be demolished and replaced with attractive downtown parking area.
Support and expand current local businesses	Identify and initiate grant opportunities.
Recruit new businesses	Real estate development, resort, manufacturing, and communications
Improve county/city infrastructure	Bridge improvements, cell towers, highway connections
Healthcare	Recruit urgent care and dialysis center
Increase cell reception	Increase cell towers in the northern part of the County
Commercial development north of Hwy 378	
Increase attendance at monthly farmers' market at the high school	Increase promotion of farmers market with more advertising

HOUSING

Needs	Opportunities
Affordable housing for young families and seniors	There is ample property in the city and county for development.
Downtown has several two story buildings that need increased use of the first and second floors.	City could form a DDA or merchants committee or City could develop a list of goals as a master plan for downtown.

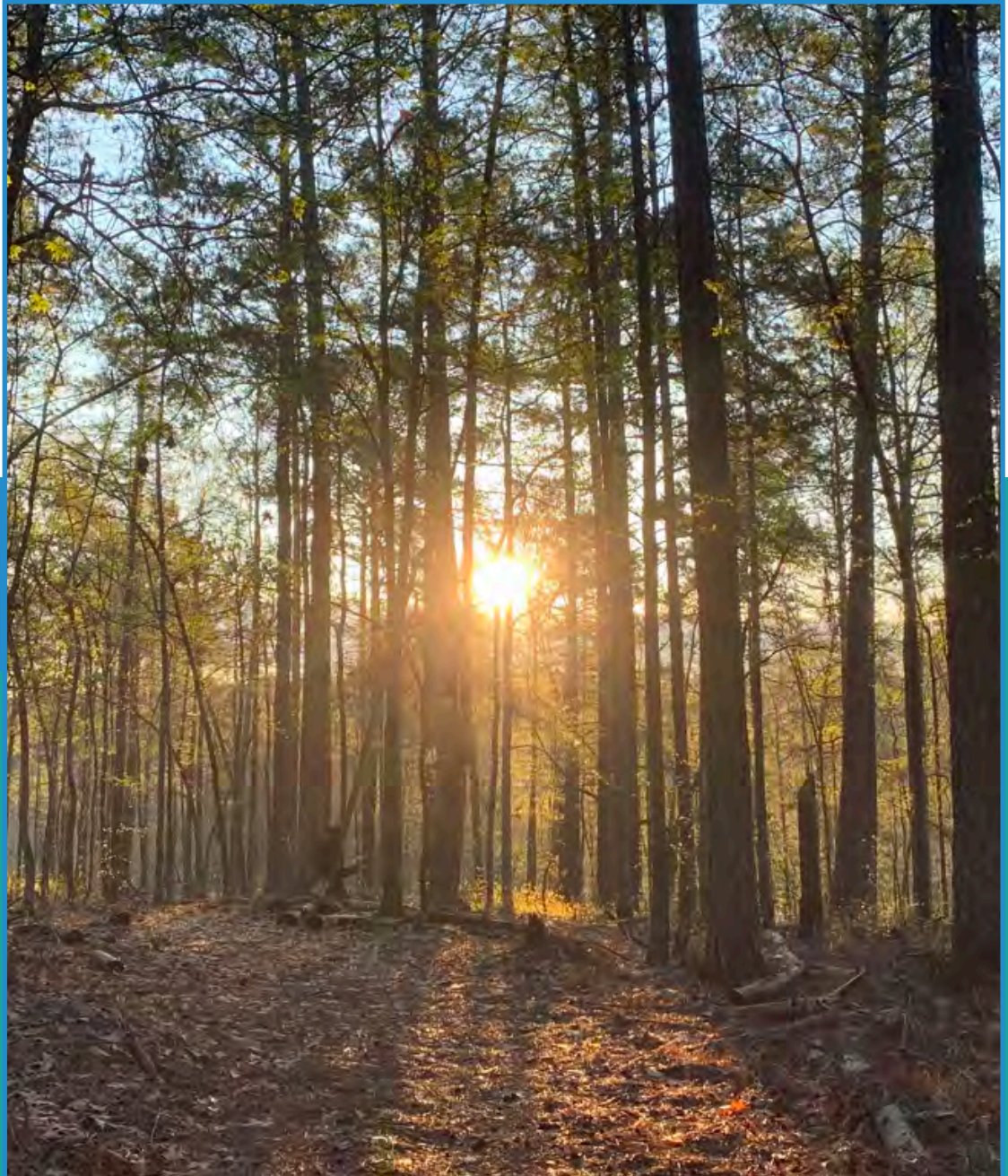
NATURAL AND CULTURAL RESOURCES

Needs	Opportunities
There are a number of historic sites throughout the county that are unique to Lincoln County and the State of Georgia as well.	Historic sites can be marketed for tourism.
There is no method for actively preserving open space and the rural character that makes Lincoln County unique.	Creation of greenspaces, active and passive parks. Trail systems would allow for movement from city to areas in county.

COMMUNITY FACILITIES

Needs	Opportunities
Upgrade and repair aging infrastructure.	Actively seek opportunities for funding for critical infrastructure improvements.
Upgrade and expand recreation facilities.	Actively seek opportunities for funding for recreational and trail system improvements.
Build more trail systems.	
Maintain public safety equipment.	

Community Vision



Community Goals

List of Goals: Goals are a list of broad statements of understanding that are intended to provide a road map for the future of the county and contained municipalities. They were developed through a public process of involving community leaders and stakeholders in looking towards the long-term growth of the county and city over the next five years and beyond. Goals, in one sense, are the most important part of the comprehensive plan. They are intended to generate a vision of the entire county and city and one which will instill pride and enthusiasm in working towards a better community in which to work, play, and live.

Policies: To support these Goals, local governments have selected policies to provide guidance and direction to local government officials and other interested persons for making decisions consistent with achieving the Community Goals.

Community Goals



ECONOMIC DEVELOPMENT

- Support and Expand Current Local Businesses
- Recruit New Businesses
- Recruit Healthcare Facility for Urgent Care
- Recruit Healthcare Facility for Dialysis Center
- Expand Recreational Facilities (Agriculture Center)



HOUSING

- Provide Safe, Livable, Affordable Housing Options
- Expand Tax Base with New Residential Developments



NATURAL AND CULTURAL RESOURCES

- Preserve Lake Resources
- Preserve Recreation Resources
- Preserve and Protect Historic Buildings and Resources



COMMUNITY FACILITIES

- Work with GDOT to Provide Four Lane Entrances to Lincoln County
- Replace Firefighters Equipment As Needed
- Replace Sheriff and Police Department's Equipment As Needed
- Upgrade and Expand County and City Infrastructure
- Upgrade and Expand Recreational Facilities



BROADBAND SERVICES

- Increase cell towers to enable access to high-speed Internet throughout the county for residents, businesses, and institutions of various sizes.

LAND USE

- Support Character Area implementation recommendations

Supporting Policies

ECONOMIC DEVELOPMENT

- Resources should be used to develop Clarks Hill Lake for recreation and tourism.
- Resources should be used to recruit new businesses to develop Retail, Co-Working, and Loft Living spaces in Downtown Historic Buildings.
- Resources should be used to develop an alternate entrance and community store to the Lincoln County Historical Park.

HOUSING

- Support programs that address affordable housing for all ages including rental and single-family.
- Work with subdivision homeowner's associations and developers to ensure infrastructure meets livability needs.

COMMUNITY FACILITIES

- Resources should be used to enhance and upgrade recreational facilities and leisure opportunities for residents and visitors.
- Resources should be used to develop and implement parking plan in the City of Lincolnton.
- Work with each other on targeted expansion of water & sewer facilities to keep development from sprawling.

NATURAL AND CULTURAL RESOURCES

- Promote local historic preservation activities and publicize information about available tax credits.

BROADBAND SERVICES

- Encourage the deployment of free public Wi-Fi hotspots in commercial and institutional establishments.

LAND USE

- Enforce ordinances, zoning, and codes.
- Resources should be used to implement Character Area recommendations.



Future Development

CHARACTER AREAS



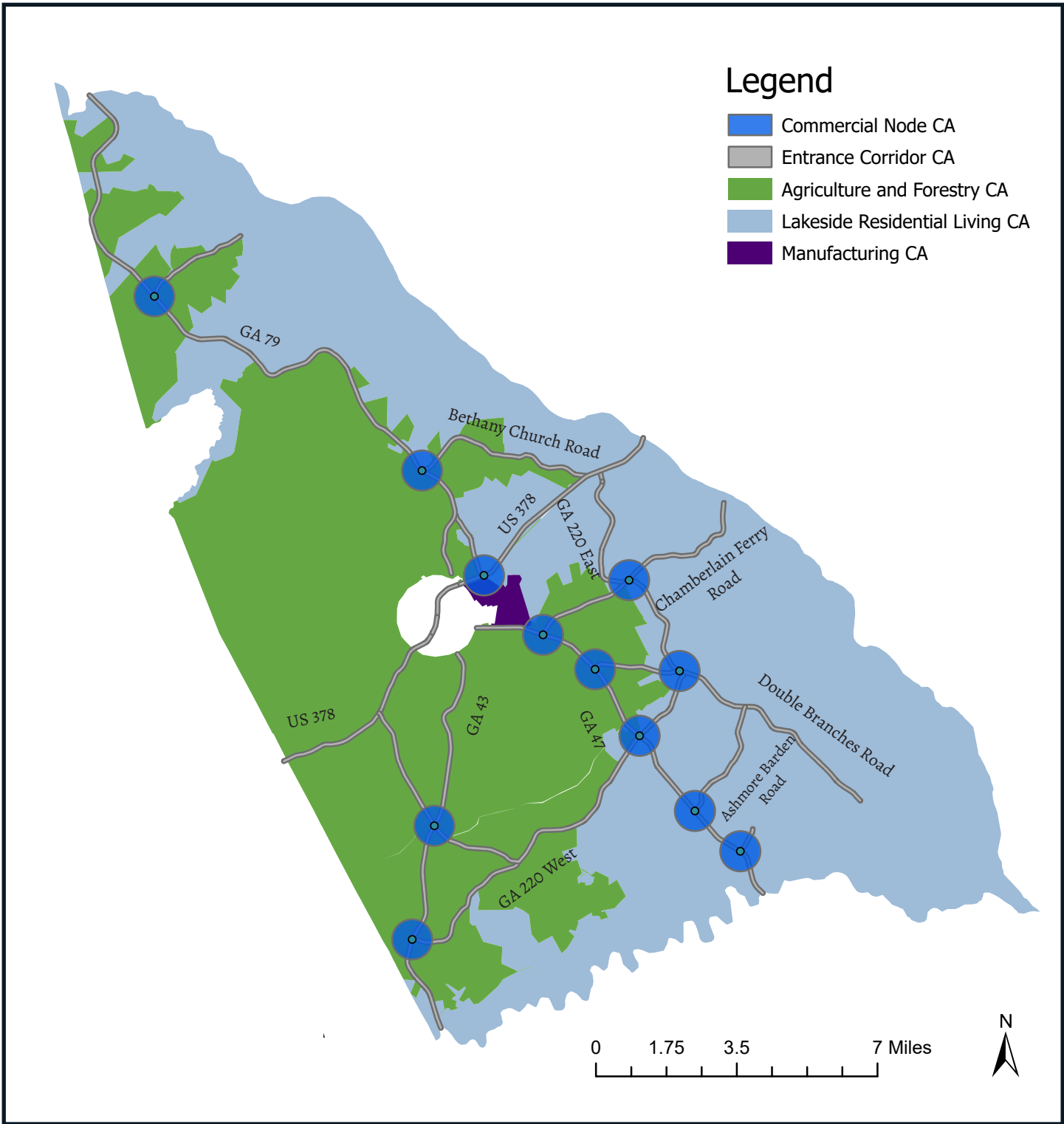
The Georgia Department of Community Affairs' Minimum Standards and Procedures require communities subject to the Georgia Zoning Procedures Law include a land use element within their comprehensive plan document. The City of Lincolnton and Lincoln County administer and enforce land use regulations, thus requiring that the comprehensive plan include a land use element.

Locally initiated or mandated by the state, the inclusion of a land use element within a comprehensive plan document is a sound requirement. There is no other comprehensive planning element that better relates to a community's long term vision of growth, development, vitality than how land is used within the community by residents, public institutions, and private entities.

The comprehensive plan will be considered by governing authorities when making land use recommendations, determinations, interpretations, and decisions for the future. This document should support the existing and future zoning, subdivision, and land use regulations. Those regulations will also provide key parameters when implementing the plan and should be referenced alongside Character Area development strategies. Images contained in the following pages include existing conditions in the designated Character Area and aspirational examples of future development.



Lincoln County



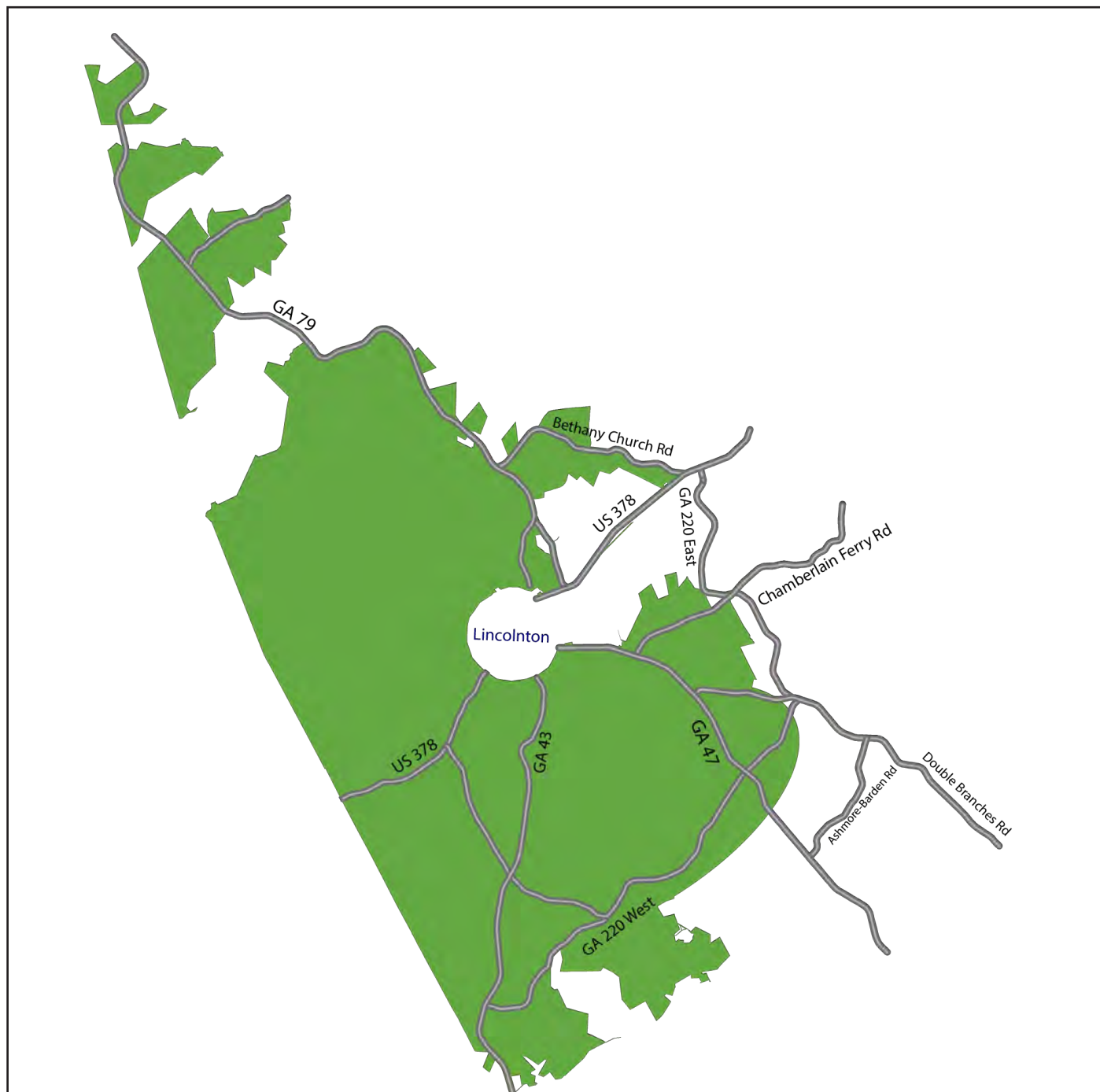
CHARACTER AREA MAP: This map and supporting narratives provide a description of preferred land use districts for varying sections of the county.

CHARACTER AREA BOUNDARIES: Unlike a future land use map, character area boundaries for Lincoln County are not contained by parcel lines. The character area boundaries in this document represent approximate character area location.

This flexibility allows the governing body charged with implementing the plan to make decisions based on changing conditions while reducing the need to continually amend the comprehensive plan. As a result, it is possible to assume that small parcels located directly adjacent to one (1) or more character areas may be permitted by the local government to develop according to the parameters of the adjacent area rather than the area in which it is located. Such an action should be taken sparingly and the decision should only be made if the local government can show that it is consistent with the recommendations provided in other sections of the comprehensive plan or other local policy document. For the most part however, tracts should develop according to the parameters established in the specific character area in which it is located. Staff and officials are strongly encouraged to initiate amendments to the Character Area Map whenever the community intends to promote a development pattern in an area that is contrary to the adopted map.

CHARACTER AREA NARRATIVES: The narratives that correspond to the Character Area Map should be viewed as general policy statements - as statements of intent. Their use and applicability is similar to those other goals and policy statements found in the Community Goals component of the plan document. They should inform future development decisions and perhaps form the basis for more detailed topic-specific studies in the future.

Agriculture and Forestry



Agriculture and Forestry



GENERAL DESCRIPTION

The Agriculture and Forestry Character Area is located along the western border of the county and is characterized by rural land used for agriculture, farming, forestry, and low-density residential. Large-lot residential, clustered development with open space preservation, and agricultural uses should continue to be the preferred development pattern in this area.

LAND USES

Forestry
Agriculture
Low-Density Residential
Passive Recreation

IMPLEMENTATION MEASURES

- Promote forestry and timber harvesting with guidelines for replanting
 - Encourage the development of trails and other passive recreation opportunities
 - Review and adjust regulations as necessary to encourage open space preservation
-

Lakeside Residential Living



Lakeside Residential Living



GENERAL DESCRIPTION

The Lakeside Residential Living Character Area runs along Clark's Hill Lake, stretching along the eastern and southern borders of the county. This area contains Elijah Clark State Park, land owned and managed by the Army Corps of Engineers, multiple residential developments and associated uses. This character area also includes land for potential resort development. Growth in undeveloped areas should be targeted toward active and passive recreation, family enjoyment activities, and lodging for visitors. As the area grows, care must be taken to protect the lakefront while providing adequate facilities and infrastructure for neighborhoods.

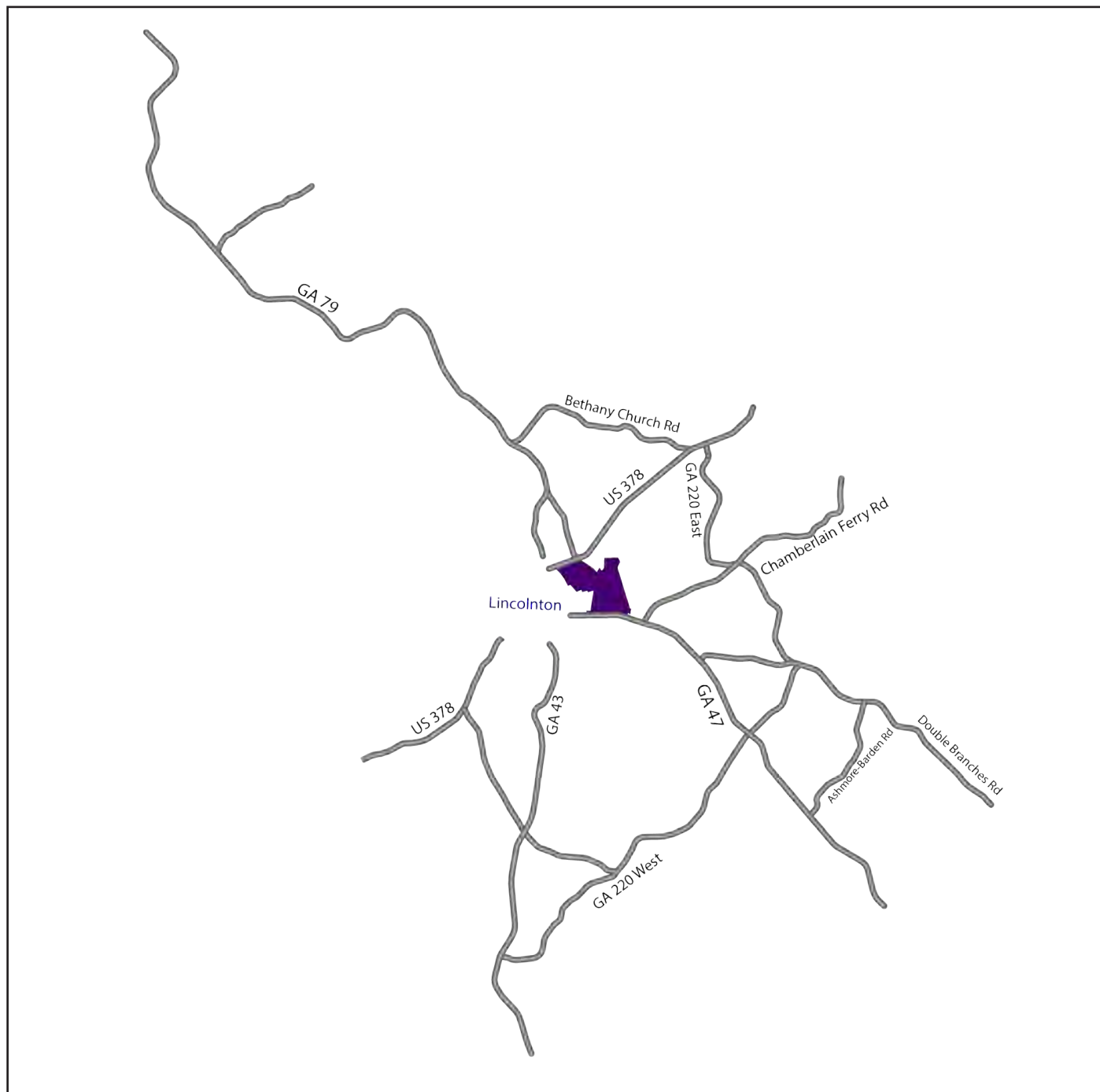
LAND USES

Residential | Commercial | Parks and Recreation

IMPLEMENTATION MEASURES

- Buffer stream corridors
- New development should be a master-planned with mixed-uses, blending residential development with schools, parks, recreation, retail businesses and services, linked in a compact pattern that encourages walking and minimizes the need for auto trips within the subdivision.
- Wherever possible, connect to regional network of greenspace and trails, available to pedestrians, bicyclists, and equestrians for both tourism and recreational purposes.
- Set aside land for pedestrian and bicycle connections between schools, churches, recreation areas, city centers, residential neighborhoods and commercial areas.
- Set aside land for pedestrian and bicycle connections between schools, churches, recreation areas, city centers, residential neighborhoods and commercial areas.
- Promote linkages between residential developments and commercial/recreational areas

Manufacturing Character Area



Manufacturing Character Area



GENERAL DESCRIPTION

The Manufacturing Character Area contains the bulk of manufacturing and industrial uses within Lincoln County. This character area is focused on the land including and adjacent to the Lincoln County Industrial Park. Future industrial development should locate in this area to take advantage of the utilities and access provided to the existing industrial sites.

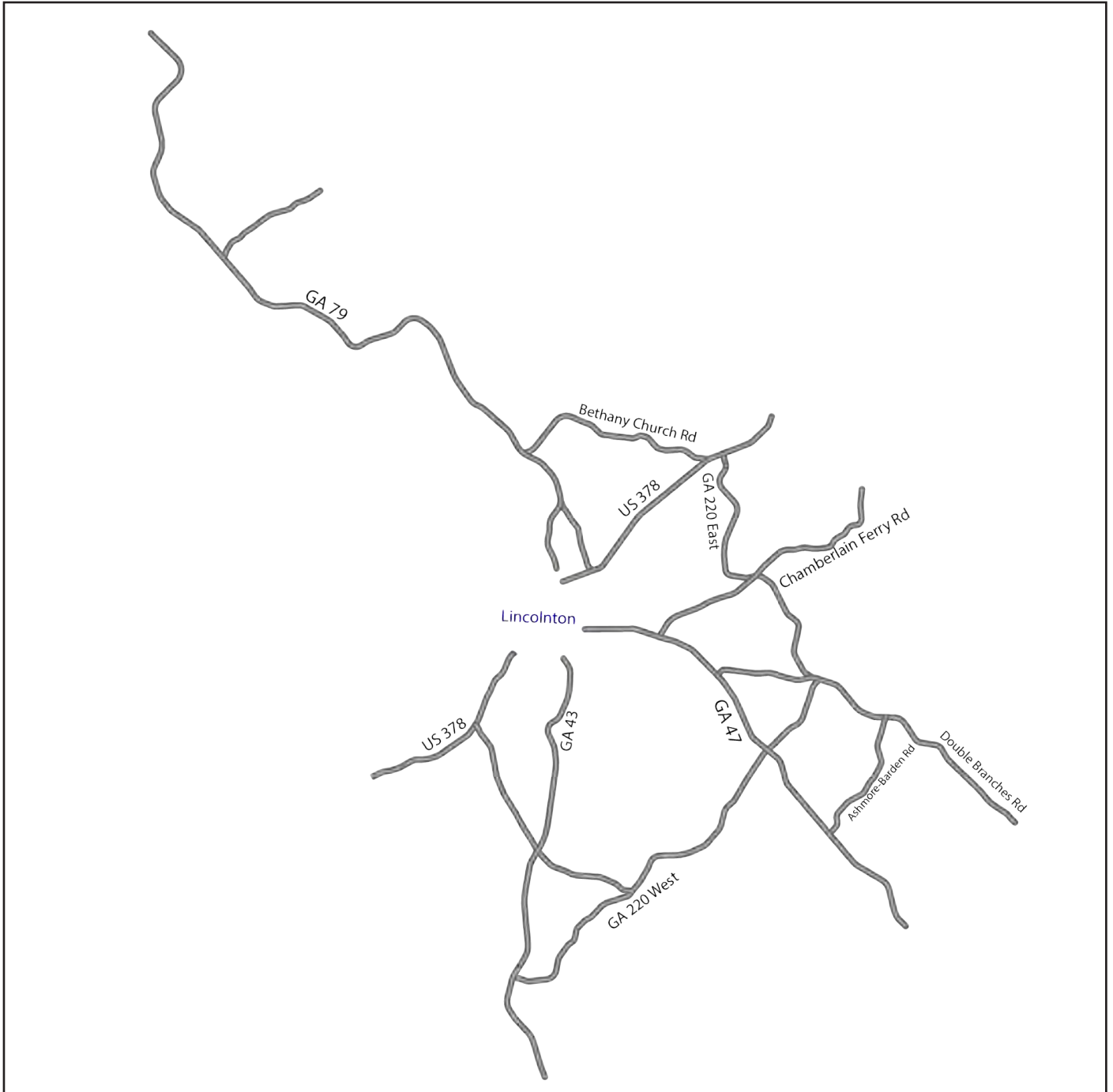
LAND USE

Industrial

IMPLEMENTATION MEASURES

- Incorporate or update signage and lighting guidelines to enhance quality of development.
 - Examine and update landscaping and site design to soften or shield views of buildings and parking lots, loading docks, etc.
-

Entrance Corridor



Entrance Corridor



GENERAL DESCRIPTION

The Entrance Corridor Character Area is comprised of three major roadways leading into Lincoln County: State Route 43, State Route 47, and US Hwy 378, located along the southern and western county boundaries. The character area extends from the centerline of each roadway to 250 feet on either side. Although the City of Lincolnton is the commercial and service center of the county, the unincorporated areas can and should capitalize on the amount of vehicular travel through the county by increasing the amount of goods and services available. While this increase in commerce is desirable, care must be taken to plan for the best locations for this new growth and the scenic beauty of these corridors should be protected and maintained.

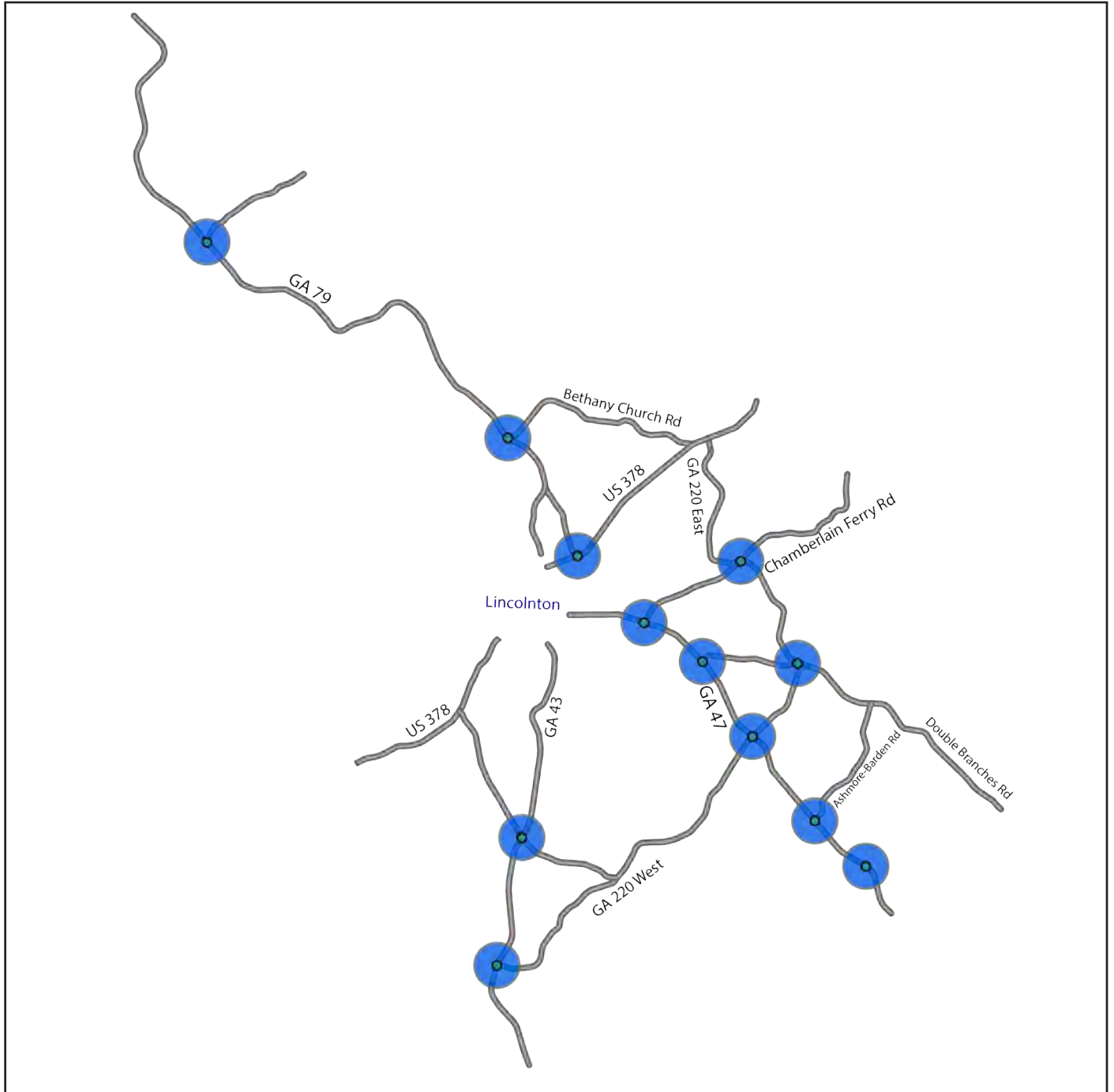
LAND USES

Commercial
Residential

IMPLEMENTATION MEASURES

- Cluster new commercial development at major intersections to avoid traffic congestion.
 - Monitor the quality of commercial uses and signage through building codes and land development regulations.
 - Provide paved shoulders that can be used by bicycles or as emergency breakdown lanes where feasible.
 - Encourage landscaped, raised medians to provide vehicular safety, aesthetics, and also pedestrian crossing refuge.
 - Manage access to keep traffic flowing; using directory signage to clustered developments.
-

Commercial Node Character Area



Commercial Node Character Area



GENERAL DESCRIPTION

The Commercial Node Character Area is an intersection-based character area that joins the Entrance Corridor Character Area. The character area extends from the roadway intersection 500 feet in all directions. Although the City of Lincolnton is the commercial and service center of the county, the unincorporated areas can and should capitalize on the amount of vehicular travel through the county by increasing the amount of goods and services available. The intersections of the county's major roads have been designated as targets.

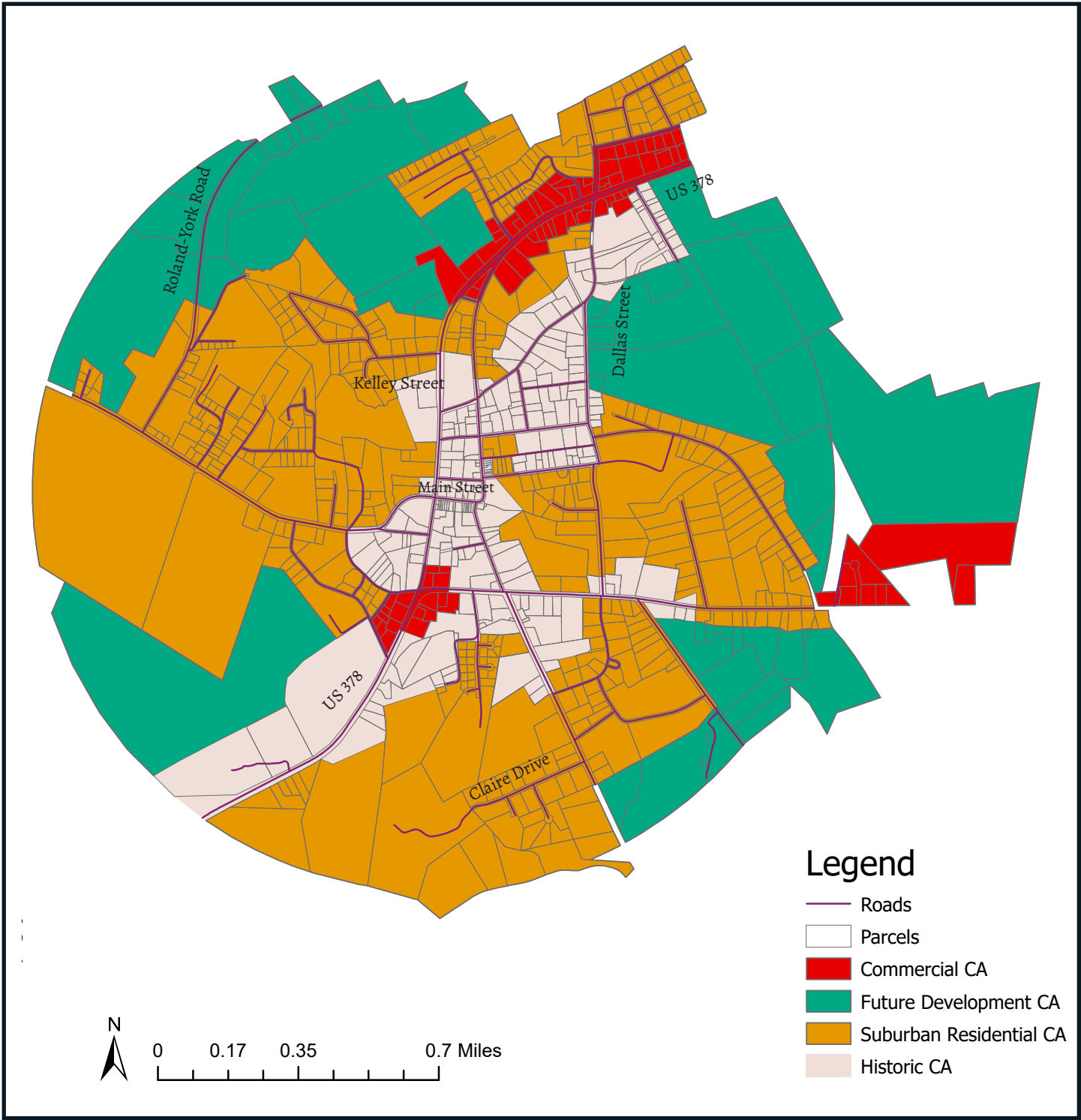
LAND USES

Commercial
Residential

IMPLEMENTATION MEASURES

- Focus on improving connection to current infrastructure that can support increased capacity.
- Provide incentives for desired commercial uses to locate in these areas.
- Provide information regarding these areas to potential commercial businesses.
- Monitor the quality of commercial uses and signage through building codes and land development regulations.
- Evaluate the use of Planned Unit Developments that encourage clustered development or a mix of residential and commercial use where appropriate

City of Lincolnton



CHARACTER AREA MAP: This map and supporting narratives provide a description of preferred land use districts for varying sections of the city.

CHARACTER AREA BOUNDARIES: Similar to a future land use map, character area boundaries for Lincolnnton are contained by parcel lines. The character area boundaries in this document represent approximate character area location.

This flexibility allows the governing body charged with implementing the plan to make decisions based on changing conditions while reducing the need to continually amend the comprehensive plan. As a result, it is possible to assume that small parcels located directly adjacent to one (1) or more character areas may be permitted by the local government to develop according to the parameters of the adjacent area rather than the area in which it is located. Such an action should be taken sparingly and the decision should only be made if the local government can show that it is consistent with the recommendations provided in other sections of the comprehensive plan or other local policy document. For the most part however, tracts should develop according to the parameters established in the specific character area in which it is located. Staff and officials are strongly encouraged to initiate amendments to the Character Area Map whenever the community intends to promote a development pattern in an area that is contrary to the adopted map.

CHARACTER AREA NARRATIVES: The narratives that correspond to the Character Area Map should be viewed as general policy statements - as statements of intent. Their use and applicability is similar to those other goals and policy statements found in the Community Goals component of the plan document. They should inform future development decisions and perhaps form the basis for more detailed topic-specific studies in the future.

Commercial



Commercial



GENERAL DESCRIPTION

The Commercial Character Area is comprised of existing nodes of commercial development located outside of the historic area. It contains a variety of small service businesses, larger commercial enterprise and light industry.

LAND USES

Commercial
Light Industrial

IMPLEMENTATION MEASURES

- Provide basic access for pedestrians and bicycles, consider vehicular safety measures including driveway consolidation and raised medians (which also improve safety for bike/pedestrians).
- Consider streetscape enhancements such as street lights and landscaping in areas currently lacking them.
- Manage access to keep traffic flowing; use directory signage to key areas such as downtown and clustered developments.

Future Development



Future Development



GENERAL DESCRIPTION

This Future Development Character Area is adjacent to the Suburban Residential and Commercial character areas and is largely undeveloped. Future development should accommodate conservation subdivision design and clustered development that incorporates open space. There should be good vehicular and pedestrian/bike connections to retail/commercial services as well as internal street connectivity. This character area should incorporate a variety of housing types and encourage compatible architectural styles across use categories to establish identity.

LAND USES

Commercial
Residential
Passive Recreation

IMPLEMENTATION MEASURES

- Promote mix of housing types and styles with Planned Unit Developments.
 - New streets should be connected to disperse traffic, shorten walking/biking trips.
 - Each neighborhood should have a mix of retail, services, and offices to serve neighborhood residents with day to day needs.
-

Suburban Residential



Suburban Residential



GENERAL DESCRIPTION

The Suburban Residential character area contains traditional suburban development and associated uses such as neighborhood stores and schools. Street patterns are varied and there is a lack of pedestrian facilities. Future development should include pedestrian facilities with connections to downtown and adjacent areas, focal points and architectural styles that help establish and maintain neighborhood identities.

LAND USES

Commercial
Low To Medium-Density Residential
Public/Institutional
Parks And Recreation

IMPLEMENTATION MEASURES

- Create neighborhood focal points by locating schools, community centers, or small-scale commercial activity centers at suitable locations within walking distance of residences.
- There should be good vehicular and pedestrian/bike connections to retail/commercial services as well as internal street connectivity, connectivity to adjacent properties/subdivisions, and multiple site access points.

Historic



Historic



GENERAL DESCRIPTION

The Historic Character Area contains properties, landmarks, and civic and cultural resources important to the founding, settlement, and growth of the City of Lincolnton and Lincoln County. Most of the Historic Character Area consists of property within the boundaries of the Lincolnton Historic District, which is listed in the National Register of Historic Places. Small to medium-sized residential lots, civic uses, commercial uses, and cultural landmarks characterize this area. This character area is designed to provide the City and land owners greater flexibility to protect and maintain not only historic properties but to incorporate new development with scale and architectural compatibility. Pedestrian access and open space should be provided to enhance citizen enjoyment of the area.

LAND USES

Commercial | Medium To High-Density Residential | Public/Institutional

IMPLEMENTATION MEASURES

- Protect historic properties from demolition and encourage rehabilitation with appropriate incentives, including the historic preservation tax incentives.
- Re-activate the Lincolnton Historic Preservation Commission
- New development in the area should be of scale and architectural design to fit well into the historic fabric of the area.
- Linkages to greenspace and pedestrian access to open space should be encouraged with connecting sidewalks and trails.



Implementation Plan

**A review of past performance and a look
toward the future**

While prior portions of the plan examined and described issues, general goals and a physical vision, the Community Work Program (CWP) is a specific list of projects. It is aimed at addressing needs and opportunities, assessing previous activities, realizing goals and moving the city closer to the vision expressed in the plan. This section of the Plan includes the following:

- A Report of Accomplishments (ROA), based on activities included in the 2018 community work program
- A new Community Work Program that identifies the specific activities to be undertaken in the next five years





Report of Accomplishments

As part of the planning process, the local governments reviewed their previous five-year community work program (2018-2022) to assess the status of each activity or project they undertook.

The following identifiers acknowledge the status of each activity:

- Completed: The listed activity has been concluded
- Ongoing: The listed activity has started and is continuing
- Postponed: The listed activity has not been started or halted for some reason
- Not Accomplished: The listed activity has not moved forward

Lincoln County

ECONOMIC DEVELOPMENT

Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	
Promote sale of Soap Creek Marina with boat slips, ships stores, lodge, and restaurant.	X				This item is completed, and the new owners have made many upgrades to the facilities.
Promote Re-opening Soap Creek Restaurant.	X				The restaurant was remodeled and is doing very well.
Sale Top Grill Factory for boat manufacturing.	X				The building was sold and a boat manufacturing facility and RV repair are currently in business.

EXPANSION OF CHEROKEE PARK

Install sewer facilities.				X	The cost to extend sewer was too high.
Recruit a 30-room Hotel.		X			
Recruit a leisure water park.				X	The investors decided not to develop.
Recruit a water access restaurant.		X			
Develop trails as walking/jogging paths at Cherokee Day Use Area.				X	The county sub-leased these parks to Georgia Freshwater Parks LLC., who has different plans.
Construct a disc golf course.				X	This is currently a cost prohibitive activity.

ECONOMIC DEVELOPMENT

Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	

DEVELOP AQUA CULTURE AQUAPONICS PLANT

Phase I, Construct greenhouse for growth and sale of striped bass and microgreens.				X	Funding fell threw for this project.
Phase II, Expand greenhouse and cultivate pond for prawn production.				X	Funding fell threw for this project.

EXPANSION OF EAST GEORGIA COLLEGE

Expand East Georgia State College into an official teaching location for Lincoln County with class-rooms, research and lab facilities, and dock facility for marine biology.				X	Funding fell threw for this project.
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TECHNOLOGY PROJECTS

Develop an upgraded website for Lincoln County.	X				
Purchase ESRI ARC GIS programs for County and City use.				X	Lincoln County uses a third party for these services.

NATURAL AND CULTURAL RESOURCES

Identify, plot, and develop signage for rural family cemeteries		X			Identification and plotting complete and is updated as needed. There are no plans to develop signage. This is not included in the 2023 CWP.
Develop waterfront parks taken over from U.S. Army Corps of Engineers into profitability or cut expenses.	X				The County sub leased these parks to Georgia Freshwater Parks LLC.

HOUSING

Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	
Apply for CHIP Housing Grant.	X				Lincoln County was denied the grant.
Develop new subdivisions of affordable housing in the \$100,000 to \$175,000 range.		X			
Work with subdivision homeowner's associations and developers to ensure infrastructure meets livability needs.		X			This is considered an on-going policy and has been relocated to the Community Goals section of the plan.
Attract more rental housing.		X			

COMMUNITY FACILITIES

Construct Senior Center at Currey Colvin Recreation Park.				X	Lincoln County was denied the CDBG funding for this project and unable to locate alternative funding.
Make repairs to Lincoln County Courthouse (carpet, woodwork).	X				
Construct annex as additional office space adjacent to Lincoln County Courthouse.	X				Lincoln County repurposed the old EMS building and created a new Magistrate and Probate Court.
Develop trails as walking/jogging paths at Cherokee Day Use Area.				X	The county sub-leased these parks to Georgia Freshwater Parks LLC., who has different plans.

COMMUNITY FACILITIES

Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	
Construct disc golf course at Currey Colvin Recreation Park.				X	The County sub leased these parks to Georgia Freshwater Parks LLC.
Develop records retention area at EMS building.	X				
Seek to construct infrastructure throughout County.		X			

SHERIFF'S DEPARTMENT AND EMERGENCY SERVICES

Purchase and replace one patrol vehicle for Sheriff's Dept. (2018)	X				
Purchase and replace one patrol vehicle for Sheriff's Dept. (2019)	X				
Purchase and replace one patrol vehicle for Sheriff's Dept. (2020)	X				
Purchase and replace one patrol vehicle for Sheriff's Dept. (2021)	X				
Purchase and replace one patrol vehicle for Sheriff's Dept. (2022)	X				
Purchase and perform remount of one ambulance Chassis.	X				
Purchase and perform remount of second ambulance chassis.		X			
Purchase and replace cardiac monitor/defibrillators.	X				
Purchase and replace Fire Engine (pumper).	X				

TRANSPORTATION

Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	
Work with DOT to upgrade and expand Hwy 43 to 4 lanes throughout the county.		X			

LAND USE

Create a special use or Planned Unit Development area to incorporate a Aqua Culture Aquaponics Plant.				X	The county did not get the funding for this project and decided not to move forward with creating a PUD area.
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INTERGOVERNMENTAL COORDINATION PROJECTS

Continue to work on an annexation agreement between the city & county.				X	This activity is no longer a priority.
Work with each other on targeted expansion of water & sewer facilities to keep development from sprawling.		X			This is considered an on-going policy and has been relocated to the Community Goals section of the plan.

City of Lincoln

ECONOMIC DEVELOPMENT

Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	
Continue renovation of City Hall including removing old wall paper, mudding and sanding the walls, and painting.			x		This activity was postponed due to budget constraints.

ALTERNATE ENTRANCE TO LINCOLN COUNTY HISTORICAL PARK, US 378/SR 47

Purchase gas station as alternate entrance to Lincoln County Historical Park.				X	Not a city project. This will not be in the 2023 CWP
Refurbish historic gas station to provide an orientation/Visitor's Center with artisans store as entrance to Lincoln County Historical Park.				X	Not a city project. This will not be in the 2023 CWP.

TECHNOLOGY PROJECTS

Develop upgraded website for Lincoln County.		X			Lincoln County updated its website. The city plans to do the same in the 2023 CWP.
Purchase ESRI ArcGIS programs for County and City use.				X	This is not a priority. The city does not have staff to use ESRI ArcGIS programs.

NATURAL AND CULTURAL RESOURCES

Complete Phase III, Transportation Enhancement Streetscape project.	X				
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HOUSING

Develop new subdivisions of affordable housing in the \$100,000 to \$175,000 range.				X	This was a county-only project.
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HOUSING

Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	
Work with subdivision homeowner's associations and developers to ensure infrastructure meets livability needs.				X	County project not city project.
Attract more rental housing.				X	Not activity recruiting developers.
Reactivate the Lincolnnton Historic Preservation Commission (HPC) to establish downtown revitalization goals to include loft apartments.			X		This activity was postponed due to insufficient interested volunteers. The city will continue the attempt.
HPC to work with downtown building owners to develop loft apartments.			X		The HPC was not reactivated.

COMMUNITY FACILITIES

Renovate Police Department.	X				
Purchase one patrol vehicle for Police Department.		X			
Expand the Wastewater Treatment Plant.		X			The work will be completed in phases.
Construct sewer facilities in CDBG target area of Lincolnnton, Kings Way and Joan Way.	X				
Replace aging sewer lines and other infrastructure in downtown area.		X			Reworded in CWP.

COMMUNITY FACILITIES

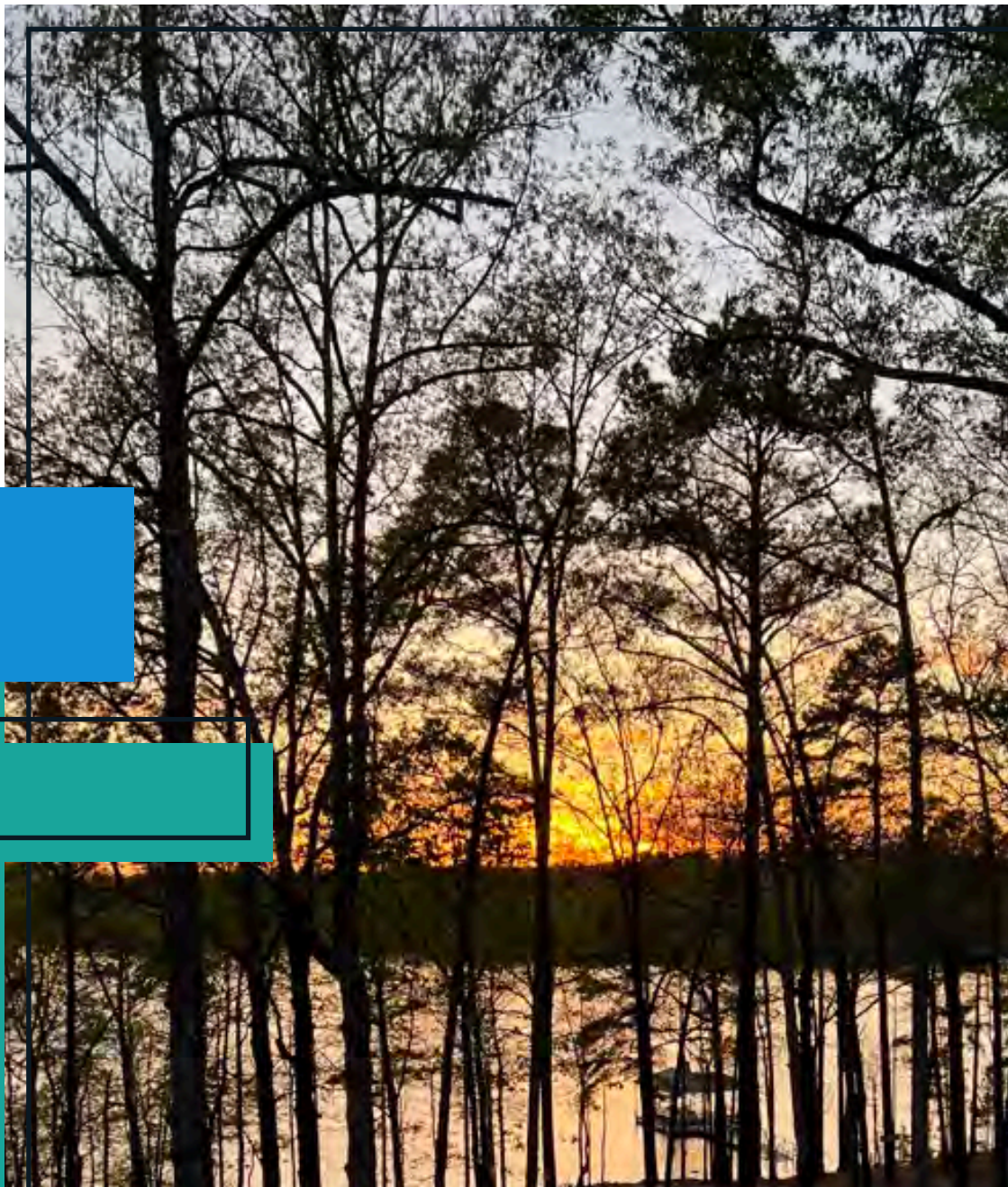
Activity/Project	Status				Comments
	Completed	Ongoing	Postponed	Not Accomplished	
Purchase new HVAC for Fire Department.		X			
Purchase 10 new air pacs (SCBAs) for Fire Department at expiration dates.		X			The work will be completed in phases.
Purchase new HVAC for Community Club House.	X				
Renovate Community Club House with new exterior doors and weatherproofing.	X				
Develop small area parking plan for rear of buildings downtown.				X	The owner of the affected parcel is not interested in selling; so the city didn't move forward.
Apply for grant funding to implement parking plan.				X	The owner of the affected parcel is not interested in selling; so the city didn't move forward.

LAND USE

Create a PUD area to provide historic tourism for the Lincoln County Historical Park for Entertainment, Residential, Tourism, Signage, etc.				X	This was a county-only project.
Amend subdivision regulations to require connection of pedestrian facilities to existing infrastructure where applicable.			X		This activity was postponed due to a lack of staff capacity.
Amend zoning ordinance to ease parking restrictions for residential uses in downtown areas to encourage loft style development in Lincolnton.			X		This activity was postponed due to a lack of staff capacity.

INTERGOVERNMENTAL COORDINATION PROJECTS

Continue to work on annexation agreement between City & County				X	Is not needed at this time.
Work with each other on targeted expansion of water & sewer facilities to keep development from sprawling.		X			This is considered an on-going policy and has been relocated to the Community Goals section of the plan.



Community Work Program

The Community Work Program establishes activities that the county, city, and other partnering agencies will implement over the next five (5) years. It is the key implementation tool for addressing the needs and opportunities identified during this planning process. This Work Program is recognized by DCA and other state agencies as those projects on which the local government has prioritized to spend local public funds and any grant or loan funds for community benefit. It has been put together with input from the Stakeholders and public comments and structured to meet DCA's minimum planning standards.

The Lincoln County and City of Lincolnton Community Work Program for a five-year span from 2023-2028 includes the following information:

- Description of each activity
- Timeframe for undertaking the activity
- Responsible party for implementing the activity
- Estimated Cost (if any) of implementing the activity
- Funding Source(s)

Lincoln County

ECONOMIC DEVELOPMENT

Activity/Project						Responsible Party	Cost Estimate	Fund Source
	2023-24	2024-25	2025-26	2026-27	2027-28			
Recruit a 30-room hotel in a lakeside park.		X	X	X		LCDA COUNTY	\$1 million	Private Funds, Grants
Recruit a water access restaurant in a lakeside park.		X	X	X		LCDA, COUNTY	\$500,000	Private Funds, Grants
Expand facade improvement grant program.	X					LCDA	\$40K	LCDA funds

HOUSING

Develop new subdivisions of affordable housing in the \$100,000 to \$175,000 range.		X		X		COUNTY	Variable	Staff Time, Private Funds
Attract more rental housing.	X		X			COUNTY	Variable	Staff Time, Private Funds, Grant Funds

COMMUNITY FACILITIES

Activity/Project						Responsible Party	Cost Estimate	Fund Source
	2023-24	2024-25	2025-26	2026-27	2027-28			
Build a new agricultural show arena at the Curry Colvin recreation complex.	X					COUNTY	\$1 million	Local Funds SPLOST
Apply for CDBG for water, sewer, flood and drainage, and roadway improvements in a CDBG eligible target area.	X		X		X	COUNTY	TBD	CDBG, SPLOST, Grants
Create promotional materials to promote new agricultural show arena.	X					Chamber/County	TBD	Staff Time
Build a second EMS substation in the north end of Lincoln County.	X					COUNTY	\$600K	Local Funds SPLOST
Build a new e-911 center.					X	COUNTY	TBD	Local Funds SPLOST, FEMA, USDA
Purchase and perform remount of second ambulance chassis.	X					COUNTY	\$50k	Local Funds SPLOST
Update recreation center gym seating.	X					COUNTY	\$12-16K	SPLOST
Add one paid firefighter per year.	X	X	X	X		COUNTY	\$60K	Local Funds/ FEMA
Seek to construct infrastructure throughout county.	X		X		X	COUNTY	TBD	CDBG, SPLOST, Grants

TRANSPORTATION

Work with DOT to upgrade and expand Hwy 43 to 4 lanes throughout the county.	X					COUNTY	\$3,683,444.31	Local Funds TSPLOST
Create cross-street signs at intersections throughout county.	X					COUNTY	\$25K	Staff Time/ Local Funds

LAND USE

Research tiny home ordinances and implement as applicable.	X	X				COUNTY	Staff Time	Local Funds
Review and update permit/application and other development fees.	X	X				COUNTY	Staff Time	Local Funds
Create and adopt a nuisance ordinance.	X	X				COUNTY	Staff Time	Local Funds
Create and adopt a property maintenance ordinance.		X	X			COUNTY	Staff Time	Local Funds

NATURAL AND CULTURAL RESOURCES

Rehab the historic Peter Lamar Tavern (now Chamber of Commerce building).	X	X	X	X	X	County/ CSRARC	\$ 500,000	Federal, State, and Local Grants, DA
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City of Lincolnton

ECONOMIC DEVELOPMENT

Activity/Project						Responsible Party	Cost Estimate	Fund Source
	2023-24	2024-25	2025-26	2026-27	2027-28			
Continue renovation of City Hall including removing old wall paper, mudding and sanding the walls, and painting.	X	X				CITY	\$3,000	Local Funds
Create the City of Lincolnton website.	X	X				CITY	\$7,500	Local Funds

NATURAL AND CULTURAL RESOURCES

Develop historic marker for the Founder's Spring.		X	X			CITY, EDA, HPC, GA Historical Society	\$5,000	Grants
Reactivate Lincolnton Historic Preservation Commission.	X	X				CSRARC	Staff Time	CLG Grants
Revise the facade grant program for downtown revitalization.	X	X	X	X		CSRARC	\$ 500,000	Federal, State, and Local Grants

HOUSING

Reactivate the Lincolnton Historic Preservation Commission (HPC) to establish downtown revitalization goals to include loft apartments.	X	X				CITY	NA	Volunteer and Staff Time
HPC to work with downtown building owners to develop loft apartments.			X	X	X	HPC	Variable	HP Tax Incentives

COMMUNITY FACILITIES

Activity/Project						Responsible Party	Cost Estimate	Fund Source
	2023-24	2024-25	2025-26	2026-27	2027-28			
Purchase one patrol vehicle for Police Department.		X		X		CITY	\$50,000	Local Funds Grants
Expand the Wastewater Treatment Plant. Lift Station 5 SCADA installation.	X					CITY	\$45,000	SPLOST, GEFA, Local Funds, Recovery Funds, Grants
Expand the wastewater treatment plant, including bar screen replacement and RAS pump replacement.	X					CITY	\$270,000	SPLOST, GEFA, Local Funds, Recovery Funds, Grants
Purchase new HVAC for the fire department.			X			CITY	\$10,000	Local Funds Grants
Purchase 10 new air pacs (SCBAs) for the fire department at expiration dates. (2 per year).	X	X	X	X	X	CITY	\$100,000	Local Funds Grants
Exterior and yard improvements to community club house.			X			CITY	\$4,500	Local Funds
Utilize sewer easements to create public walking trails.		X				CITY	\$75K	SPLOST
Purchase a new firetruck.	X					CITY	\$443,556.00	SPLOST/USDA grant/loan
Apply for CDBG funds for water, sewer, flood and drainage, and roadway improvements in a CDBG eligible target area.	X	X	X	X	X	CITY	\$1,000,000	CDBG

LAND USE

Amend subdivision regulations to require connection of pedestrian facilities to existing infrastructure where applicable.	X	X				CITY	Staff Time / CSRA RC	Local Funds
Amend zoning ordinance to ease parking restrictions for residential uses in downtown areas to encourage loft style development in Lincolnton.	X	X				CITY	Staff Time / CSRA RC	Local Funds



Appendix A

Existing Conditions

General Demographics

POPULATION

According to the U.S. Census Bureau's Decennial Census, the population in Lincoln County in 2020 was 7,690, which was a decrease of 3.8% from the 2010 Census. The city of Lincolnton lost 5.5% over the same period, and had a population of 1,480 in 2020. Most citizens live in the unincorporated areas of Lincoln County. As of 2020, the median age was 47 in Lincoln County and 38.9 in the city of Lincolnton. According to the U.S. Census Bureau, over 73% of the counties in the U.S. experienced population decline in 2021. In 2020 55.5% experienced decline.

Population	1990	2000	2010	2020
Lincoln County	7,442	8,348	7,996	7,690
Lincolnton	1,476	1,595	1,566	1,480

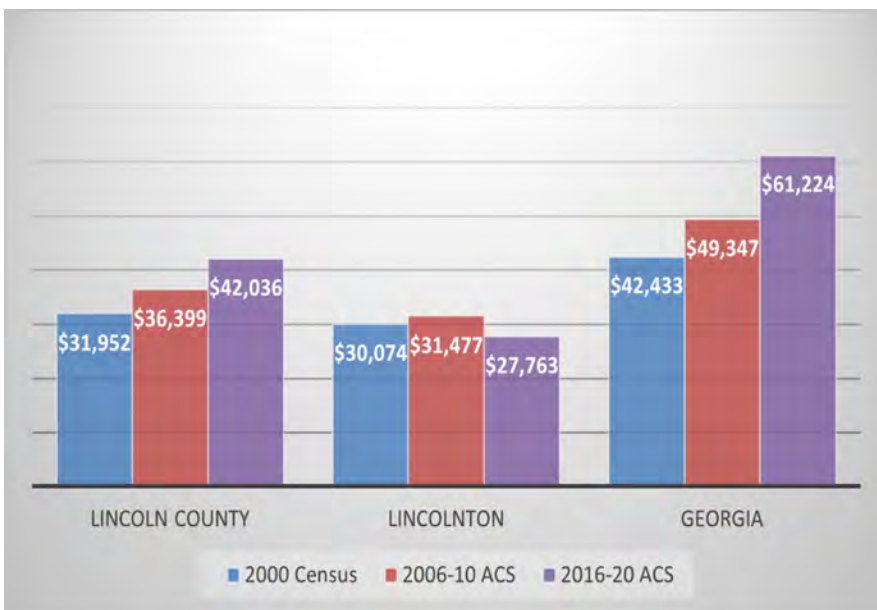
Source: U.S. Census Bureau 1990, 2000, 2010 Summary File (SF1), Decennial Census 2020 (P1)

RACIAL & ETHNIC COMPOSITION

The two largest racial groups in Lincoln County are Caucasian/White at 67.6% and African-American/Black 27.5%, which combined, represent 95.1% of the population. The city of Lincolnton is similarly mixed with 54.5% Caucasian/White and 40.6% African-American Black population mix. There exists a small ethnic presence with Hispanic residents composing 1.2% of Lincoln County and 1.4% of the city of Lincolnton.

INCOME

Median Household Income



The U.S. Census Bureau gauges a geographic area's income using Median Household Income (MHI). The MHI is meant to represent the average person living or working in a respective area. The MHI in Lincoln County has grown \$5,637 since the 2006-10 ACS to \$42,036. The city of Lincolnton has experienced a MHI decrease of \$3,714 in the same time period. In comparison, Lincoln County's western neighbor, Wilkes County, has a lower MHI of \$36,486, despite having 500 more total households than Lincoln County.

HOUSEHOLD TYPES

A household is defined by the U.S. Census Bureau as all the people who occupy a single housing unit, regardless of their relationship to one another. Family households have a householder and additional people who are related to the householder by marriage, birth, or adoption. Non-family households are those who live alone or share the housing unit with non-relatives (e.g. roommates or an unmarried partner).

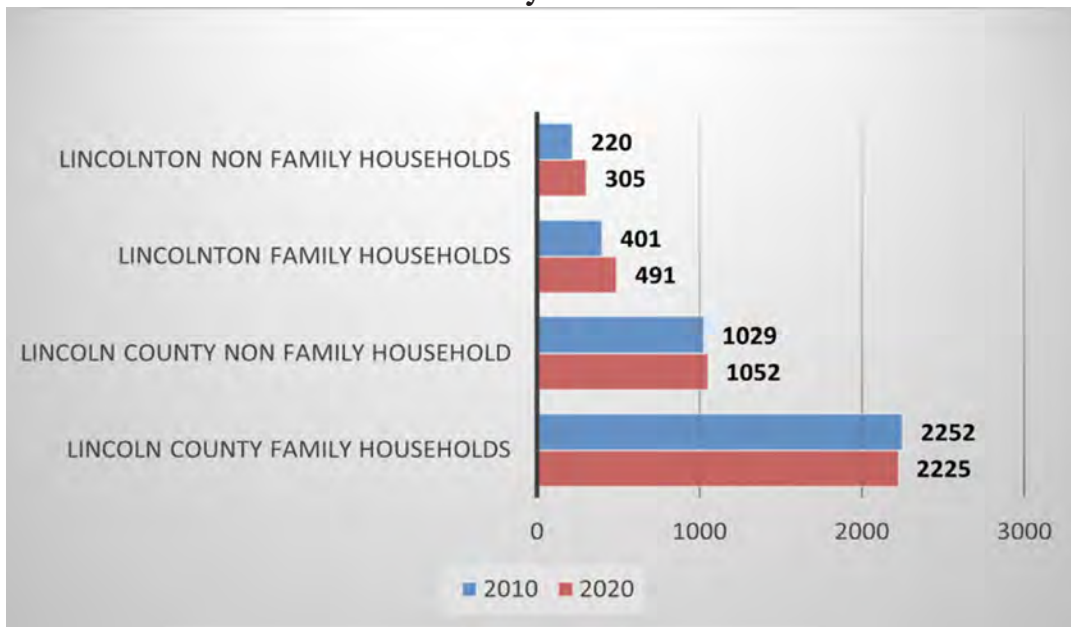
Lincoln County has experienced a decline in family households since 2010. Married couples with children under 18 have declined by 33%, while single female and single male households have increased. The city of Lincoln has increased in family households by 22.4%, but it has lost 14.5% in married couple households. Like Lincoln County, there has been an increase in single female and single male households in the city of Lincoln. Non-family households have increased by 2.2% in Lincoln County and 38.6% in the city of Lincoln since 2010.

The shift in household types is not exclusive to Lincoln County and the city of Lincoln, as a growing number of communities are being altered by shifting population groups. As with overall population loss, changing households require an evaluation of services and amenities to attract, retain, and support them.

**Total Households
Lincoln County**

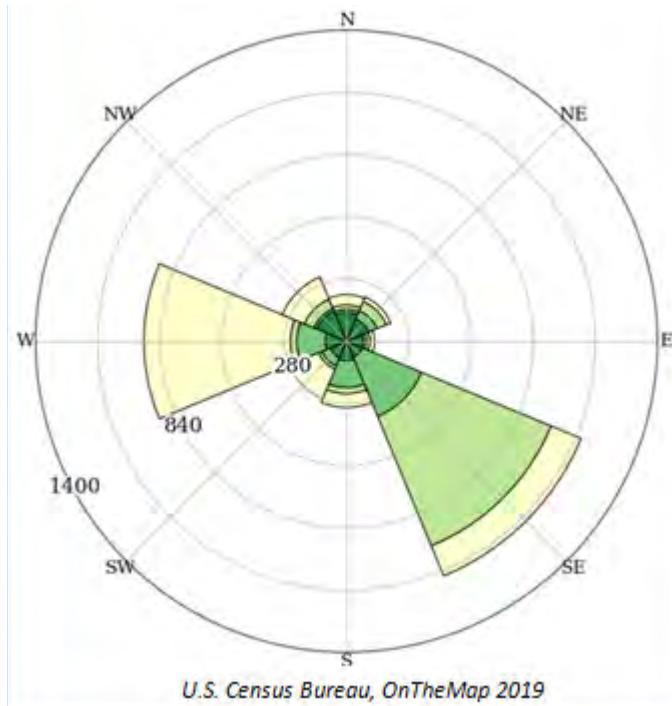
	2010	2020
Total Households	3,281	3,277
Married-Couple Households	50.3%	44.2%
Non-Family Households	31.4%	32.1%
Male-Headed Households	4.2%	7.8%
Female Headed Households	14.2%	15.9%

**Household Types
Lincoln County and Lincoln**



Economic Development

Jobs By Distance/Direction 2019



- Less than 10 miles
- 10 to 24 miles
- 25 to 50 miles
- Greater than 50 miles

Distance	2019	
	Count	Share
Total All Jobs	3,497	100.0
Less than 10 miles	802	22.9
10 to 24 miles	658	18.8
25 to 50 miles	831	23.8
Greater than 50 miles	1,206	34.5

The majority of the labor force works outside of Lincoln County. The direction and volume of traffic leaving Lincoln County for employment purposes is depicted in the radial diagram above. According to the American Community Survey, 41.7% of residents travel under 25 miles for work purposes. The residents that travel between 25 and 50 miles for work is 23.8%, while the remaining 34.5% travel over 50 miles away.

LABOR FORCE PARTICIPATION

The table shown below indicates that while population over 16 has grown in Lincoln County between 2015 and 2020, the total number of people in the labor force has decreased. In addition, the number of unemployed citizens has been cut in half since 2015. These factors should increase the total of people in the labor force, except that the number of people no longer in the labor force has grown by almost 4% in the same time period. The decline of workers in the labor force is possibly attributable to an aging population that has reached retirement age and left the work force.

Labor Force Participation In Lincoln County

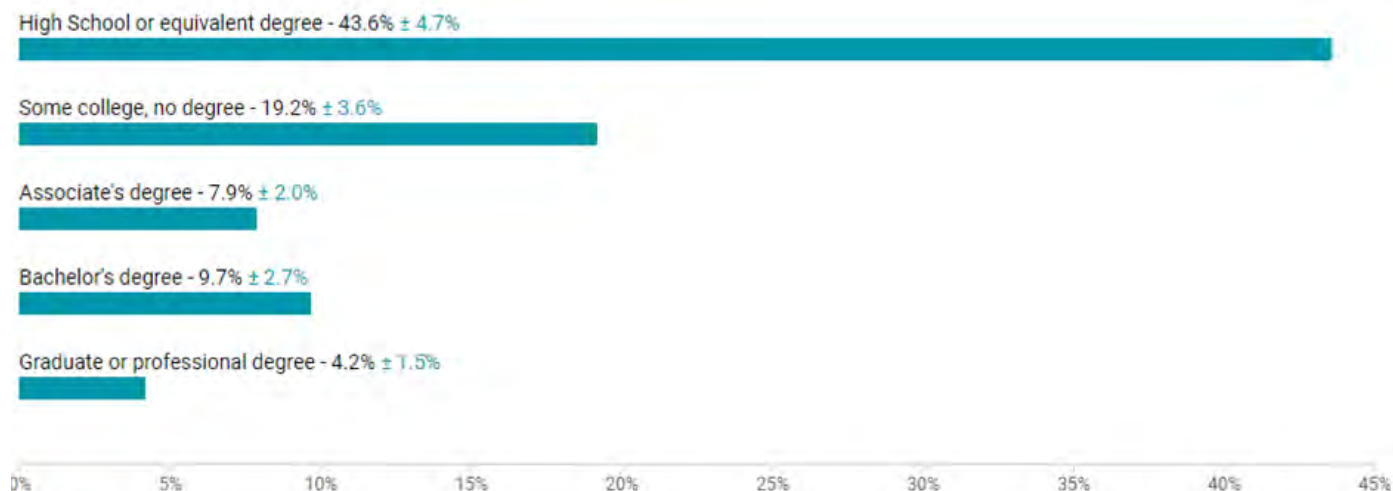
	2011-2015 ACS	Percent 16+ Population	2016-2020 ACS	Margin Of Error	Percent 16+ Population	Change	Percent Change
Population 16+	6,381	100.0%	6628	+/-126	100.0%	247	3.9%
Total in Labor Force	3,460	54.2%	3358	+/-217	50.7%	-102	-2.9%
Civilian Labor Force	3,440	53.9%	3358	+/-217	50.7%	-82	-2.4%
Employed	3,121	48.9%	3222	+/-206	48.6%	101	3.2%
Unemployed	319	5.0%	136	+/-83	2.1%	-183	-57.4%
Armed Forces	20	0.3%	0	+/-0	0.0%	-20	-100.0%
Not in Labor Force	2,921	45.8%	3270	+/-253	49.3%	349	11.9%

Source: U.S. Census Bureau, American Community Survey 2011-2015 & 2016-2020 (DP03)

EDUCATIONAL ATTAINMENT

The 2020 ACS data indicates that 84.6% of Lincoln County's population has an education that is either equivalent to high school or some other form of higher education; the state of Georgia average is 87.9%. In Lincoln County, these percentages can be further broken down by gender with males at 44.9% and females at 42.5%.

County Educational Attainment (Population 25+)



Source: 2020 ACS Survey (S1501)

HOUSEHOLD INCOME DISTRIBUTION

The median household income in the county is \$42,036. Approximately 17% of Lincoln County households make \$35,000-\$49,999 per year. This is the largest group. However, 20.8% of households make less than \$15,000 per year. As many residents have left the community for work, worker retention and job creation (of high-paying jobs) are county priorities.

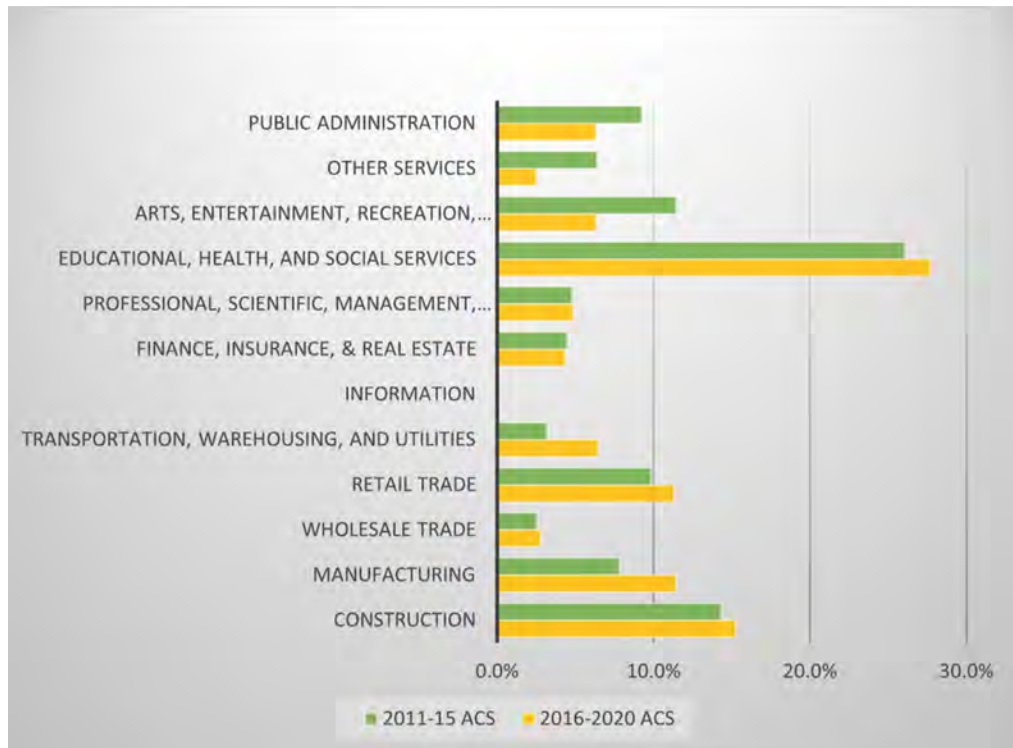
Household Income Distribution: Lincoln County



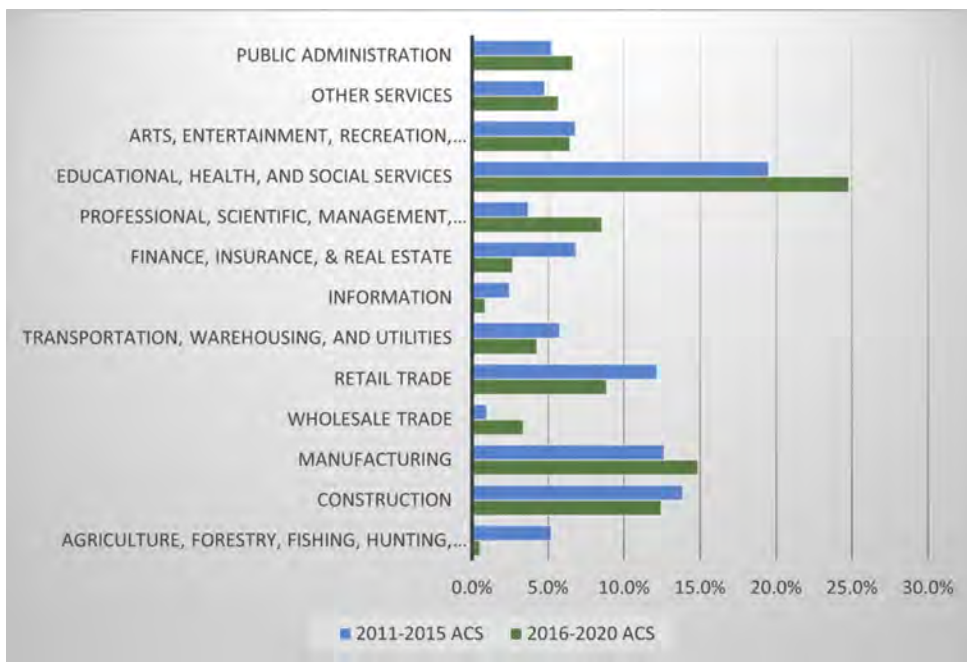
EMPLOYMENT BY INDUSTRY

The data provided by the 2020 ACS indicates that over 27.7% of citizens in Lincolnton are employed in the Education, Health, and Social Services sectors. Between the 2015 and 2020 ACS the largest industry change was a 5.1% drop in the Arts, Entertainment, Recreation, Accommodation, and Food Service sector.

Lincolnton Employment By Industry



Lincoln County Employment By Industry



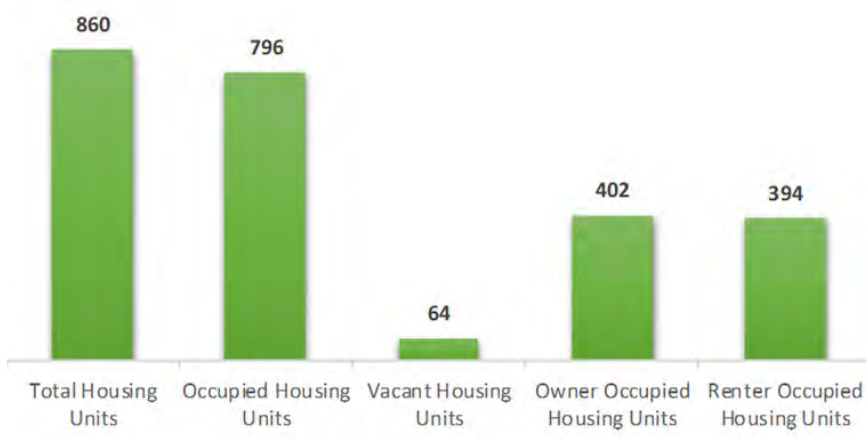
During the study period, Lincoln County increased its overall total employment numbers with only moderate changes across most industry sectors. There is a large portion of citizens throughout the county that work in the Education, Health, and Social Services sector. This sector increased in size by 5.3% between the 2015 and 2020 ACS to 24.8%. There was a decline of 4.7% in the Agriculture, Forestry, Fishing, Hunting, and Mining sectors during the same time period.

Housing

OCCUPANCY AND TENURE

The City of Lincolnnton has seen sustained growth in the number of housing units between 2011-2020. Total housing units increased by 18.7% during this time period. Of those, 7.4% of the total housing units were listed as vacant, and there was an increase in the number of renter-occupied housing units during the same time period.

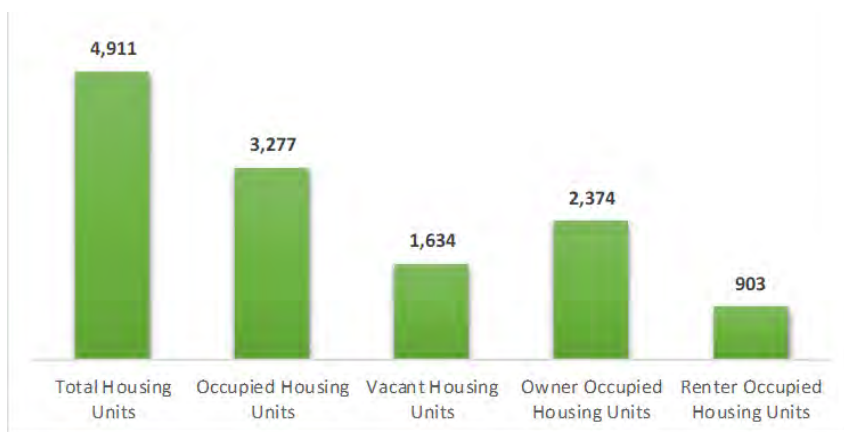
City of Lincolnnton Housing Occupancy 2020



Source: U.S. Census Bureau, ACS 2015 & 2020 (DP04)

The growth of housing units in Lincoln County between 2011-2020 was minimal, at only 2.5%. Occupied housing units dropped 4.5%, and owner-occupied housing units decreased by 8.8%. There was a 6.6% increase in renter-occupied units and a 16.6% increase in the number of vacant units between 2011-2020.

Lincoln County Housing Occupancy 2020

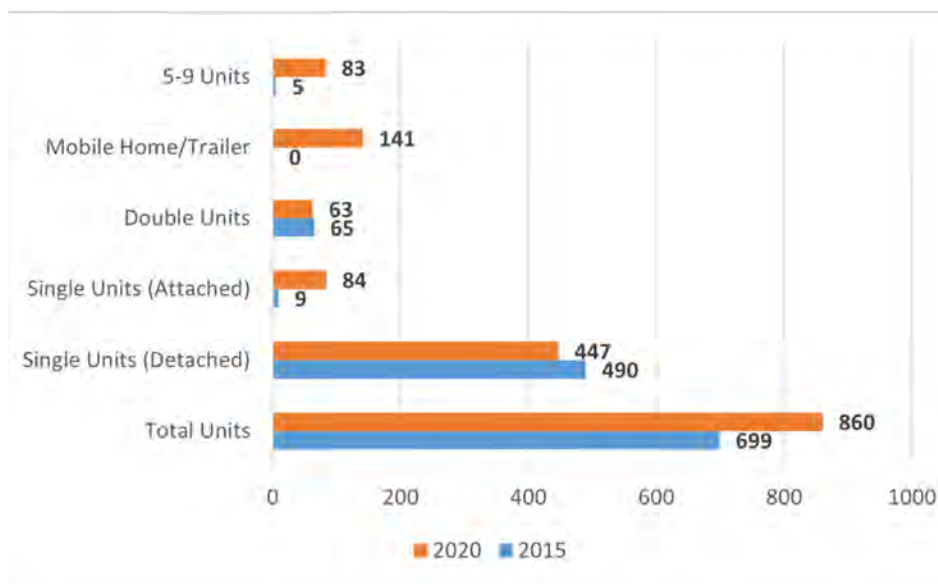


HOUSING TYPE

Lincolnton

When comparing the 2015 and 2020 ACS, Lincolnton made noticeable gains in the total number of housing units by growing 161 units to 860 in total. The most substantial gains were found in single units attached and mobile homes. Single units attached went from 9 to 84 and mobile homes grew from 0 to 141 within the 9 years from 2011 to 2020. It is noteworthy that housing units over 10 units in size decreased to zero between 2011 and 2020, but units ranging from 5 to 9 units in size increased from 5 to 83 for a whopping 1,560% increase.

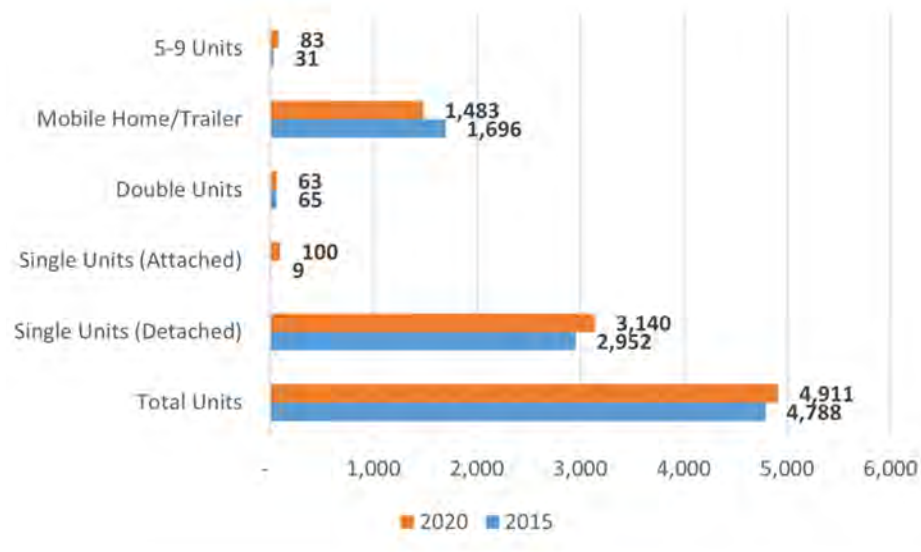
Lincolnton Housing Types 2015 & 2020



Lincoln County

The county did not have the large housing unit growth that the city of Lincolnton did between 2011 to 2020. The number of housing units in the county grew only 2.6%, but the types of housing shifted greatly during those years. Mobile homes and multi-family housing units over 20 units in size were reduced drastically between 2011 and 2020. Housing units from 3-4 units in size grew from 23 to 42 and units between 5-9 units in size grew from 31 to 83. The largest shift in housing types occurred in single family attached homes. The 2015 ACS listed single family attached homes at a total of 9, but the 2020 ACS showed 100 units which indicated a 1,011% increase.

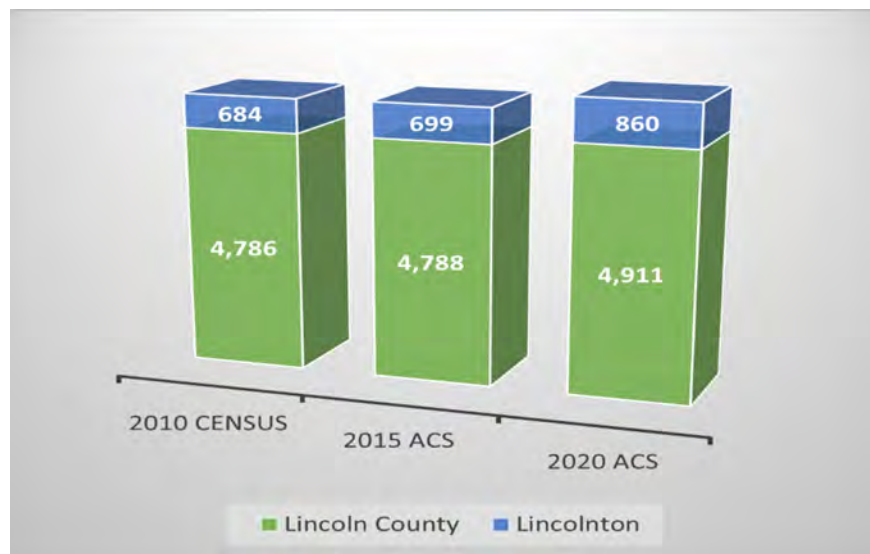
Lincoln County Housing Types



NUMBER OF UNITS

ACS data obtained from the Census Bureau indicates that housing units increased at a greater rate in Lincolnton than in Lincoln County between 2010-2020. While there are significantly more housing units in Lincoln County, the largest percentage change in housing units occurred in the city of Lincolnton. Lincolnton grew significantly in mobile homes and multi-family units in the 5-9 unit range. In contrast, Lincoln County has reduced overall numbers of mobile homes and multi-family units throughout the county in the same time frame.

Number of Housing Units in Lincoln County & Lincolnton

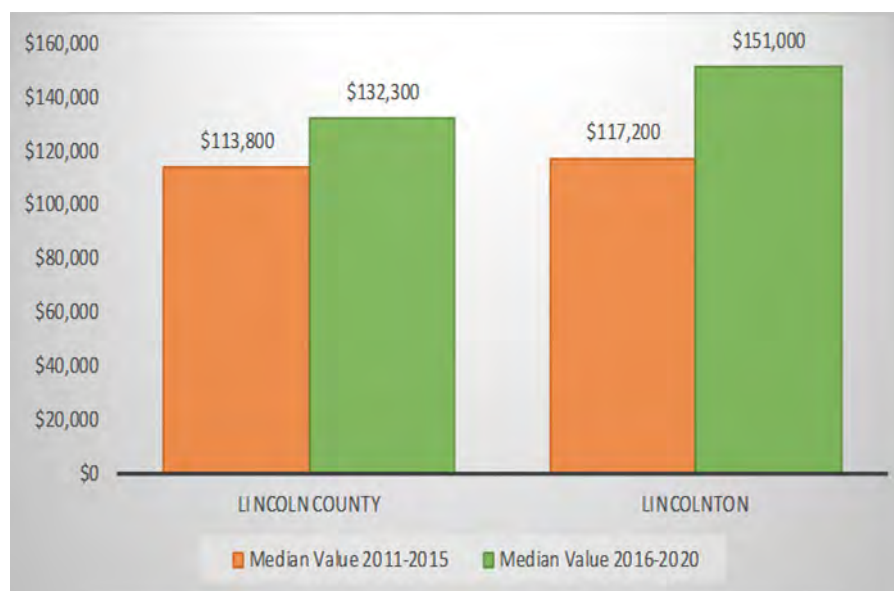


Source: 2010, 2015, 2020 ACS

HOUSING COST

Median home values and median rent increased in both Lincoln County and the City of Lincolnton between 2011-2020. Median home values between 2011-2020 increased by 31.7% in Lincolnton and 16.3% in Lincoln County. Neither outpaced median home value growth in the state of Georgia in the same time frame, which stood at over 51.6%.

Median Home Value 2011-2020



Source: 2015, 2020 ACS

Not surprisingly, the cost of renting a home increased in both areas between 2011-2020. As of 2020, the median rent for Lincoln County and Lincolnton was as follows:

Lincoln County—\$ 712

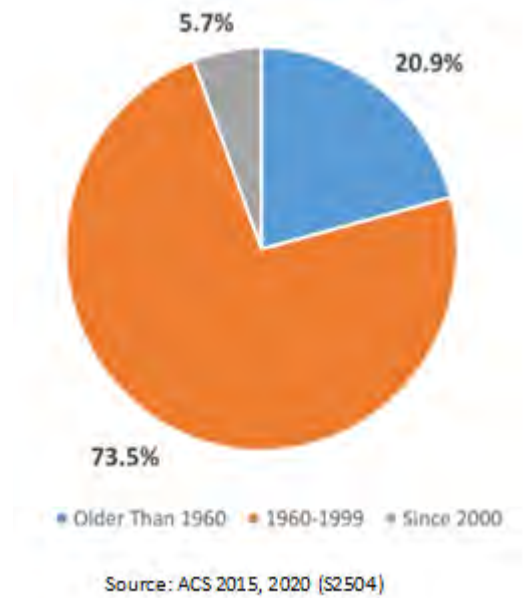
Lincolnton—\$ 628

AGE OF HOUSING

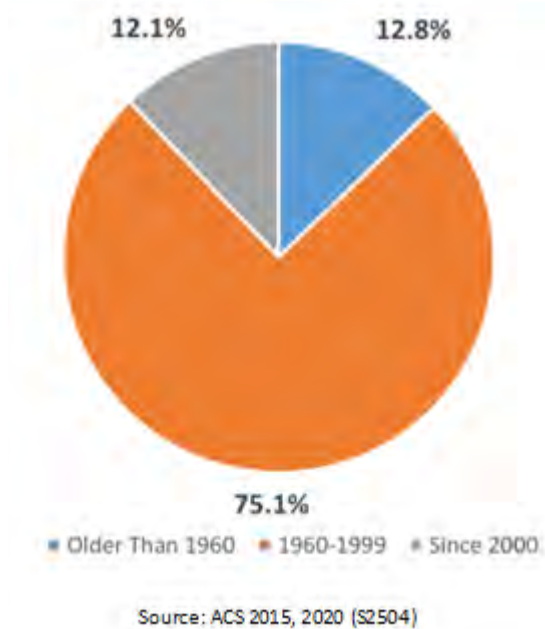
Lincolnton

Homes built between 1960-1999 compose 73.5% of the housing units in Lincolnton. There have been 45 housing units built since 2000, which is only 5.7% of the total housing units in the city limits. There are 166 housing units in Lincolnton that were built prior to 1960, which compose the remaining 20.9% of the total housing units in the city.

Age of Housing in Lincolnton



Age of Housing in Lincoln County



Lincoln County

Homes built between 1960-1999 compose 75.1% of the housing units in Lincoln County. The county has seen over 398 housing units built since 2000, which is only 12.1% of the total housing in the county. One-hundred fourteen new housing units have been built since 2014, but much of the county's charm is reflected in the older historic homes that serve as a testament to older times. Lincoln County has over 206 housing units that were built prior to 1939 and have historical significance to the community.

Broadband Services

At present, Lincoln County and the city of Lincolnton have access to five internet service providers. The majority of the providers have data speeds that meet FCC broadband requirements. Citizens have access to fiber optic cable, satellite internet service, and limited wireless connectivity.

Residential Internet Statistics for Lincolnton, GA

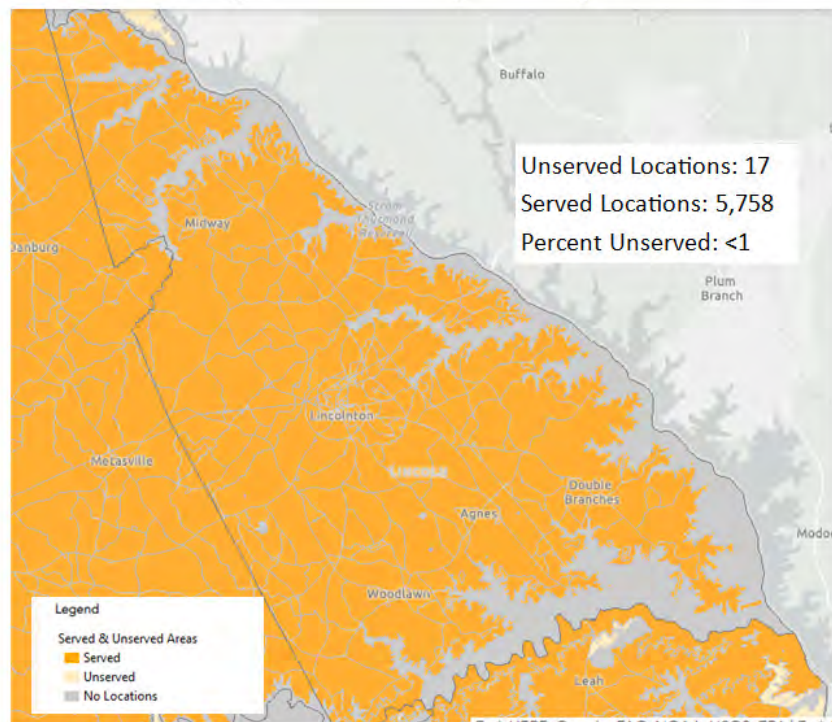
Internet Service Providers:	2
Plans Start From:	\$50
Top Download Speed:	1 Gbps
Fastest Connection Type:	Fiber

Provider	Technology	Max Down (Mbps)	Max Up (Mbps)
Relyant/Dycom Holdings	Optical Carrier/Fiber to End User	1,000	250
Hughes Network Systems	Satellite	25	3
T-Mobile USA	Terrestrial Fixed Wireless	25	3
ViaSat	Satellite	100	3
VSAT Systems	Satellite	2	1.3

Source: U.S. Internet Service Providers FCC Form 477 as of 12/31/2020,
Accessed 05/24/2022, <https://app.powerbigov.us>

The map below is the product of the Georgia Department of Community Affairs (DCA) broadband mapping. Almost all of Lincoln County is dark orange, which indicates an area served by broadband access. The statistics are based on the FCC's broadband definition of 25 Mbps down and 3 Mbps up and where the broadband service is available to 80% of locations within a census block. In addition, the map depicts access to broadband, not a subscription to broadband.

Served and Unserved Broadband Areas Lincoln County



Source: Broadband.georgia.gov 2021

Community Facilities

WATER SUPPLY AND TREATMENT

The existing Lincoln County water system is located within the county limits, with water mains located along major roads and some extensions into residential subdivisions.

The Lincoln County water system has been in place since 1988. The County may purchase up to 1 MGD of potable water from the City of Lincolnton at two different connection points. In addition, the County has six wells capable of yielding 160,000 gpd. Water from these wells is directed to a central treatment facility for iron and manganese removal. The treatment facility is capable of handling 320 gpm. These wells fill a 0.3 MG elevated storage tank of overflow elevation at 600.9 ft located on Double Branches Road. A second storage tank is located near the southwestern border of the County off Hwy 378 on Crook Road. This 0.3 MG ground storage tank has an overflow elevation of 675 ft, and is fed by a booster pump station on the west side of Lincolnton. Another 0.3 MG elevated storage tank, with overflow elevation 601.5 ft is located on Bethany Church and Remsen Roads near the current northern extremity of the system.

The County has small well systems in the Pointe Shores, Eagle Pointe, Savannah Bay, and Fishing Creek subdivisions. The systems are fed by a total of eight wells. The three wells serving the Savannah Bay system have a combined yield of 73 gpm. This part of the system is made up of approximately 9,300 feet of 2- through 6-inch waterline. Water is pumped from the three wells to a pneumatic tank. A proposed County project includes the extension of the waterline into the Savannah Bay system and connecting the waterlines and wells to the rest of the water distribution system, and includes upgrading the well pumps and adding telemetry.

The Pointe Shores system is made up of approximately 2 miles of 6-inch waterline. The two wells serving this system have a combined yield of 75 gpm. Water is pumped from the wells to two pneumatic tanks. The Eagle Pointe water system is made up of approximately 1.75 miles of 6" waterline. The two wells serving the system have a combined yield of 73 gpm. Water is pumped from the wells to one pneumatic tank.

The annual water supplied in 2022 from the annual water audit was 121.6 MG (0.333 MGD). The proposed water system extension will create 0.009 MGD demand.

The existing water system has 1,575 active customers and 605 additional customers available to meet capacity. Based upon an average residential consumption of 3,130 gallons per month, the system has 1,495 equivalent dwelling units (EDU).

The City of Lincolnton withdraws water from Lake Thurmond at the James Allen Reed Water Treatment Plant to serve its 902 water customers and wholesales water to Lincoln County, which serves an additional 1300 customers. In 2004, the City completed a \$6 million USDA project to expand the water treatment plant to 2.0-mgd, construct a new 300,000-gallon elevated water tank, and replace water meters. A subsequent project funded by GEFA and completed in 2008 replaced over 15,000 linear feet of small diameter lines throughout the City with 6 inch and larger lines, providing improved pressures, reliability and improved fire protection throughout Lincolnton. Additional projects in 2022 replaced all city water meters, added automated meter reading capacity, and performed minor upgrades to the water plant. These projects left the city water system in generally good condition.

SEWERAGE AND WASTEWATER TREATMENT

The existing Lincoln County sanitary sewer system is located within the County Limits. In 2001, the County constructed its first sanitary sewer collection system into the Old Petersburg Road area in order to eliminate problems of exposed raw sewage from failing septic systems. In 2011, the County extended the sewer system into the Black Jack area in order to also eliminate problems of exposed raw sewage from failing septic systems. Wastewater from the County's collection system is pumped to the nearby City of Lincolnton Water Pollution Control Plant for treatment. 7.9 miles of pipelines is comprised of the following components:

Gravity Sewer	Linear Feet
8-inch	18,130
10-inch	780
12-inch	540
Total	19,250
Forcemain	Linear Feet
3-inch	1,480
4-inch	5,600
6-inch	8,890
8-inch	25,730
Total	41,700



The City of Lincolnton operates a Water Pollution Control Plant off Petersburg Road. The facility was expanded in 2018 as part of a \$7.4 million USDA funded project, and is now permitted to treat and discharge 1,040,000 gpd to Reedy Creek, a tributary of Clarks Hill Reservoir. In 2016, the plant treated an average of 247,000 gpd from the City's 878 sewer customers and approximately 160 County sewer customers.

Over half of the City's customers are served by four sewage pumping stations that pump to the gravity system flowing to the treatment plant. The majority of this sewerage flows to Pump Station No. 4, which was replaced in 2009. Pump Station No. 3 was also replaced in 2009 and the remaining Pump Stations No. 1 and No. 2 were replaced in 2017 as part of the USDA project.

The existing City of Lincolnton sewerage system is comprised of approximately 3.6 miles of gravity sewer, five pump stations and approximately 7.9 miles of forcemains. The 2017 USDA project replaced 4,825 linear feet of 10-inch and 12-inch main sewer interceptors and upsized the lines to 12-inch and 18-inch diameter. Between 2005 and 2012, the City completed three sewer rehabilitation projects using CDBG and City funds totaling over \$1.8 million.

The City also received a 2016 CDBG grant for sewer improvements to replace 6,000 linear feet of 8-inch sewer line in the King's Way and Joan Way target area.

SOLID WASTE MANAGEMENT

Lincoln County has mandatory curbside garbage pickup for every residential property in the County. The County has contracted with a private waste collection service for garbage service, and it is billed to each customer annually on their tax bill. Although the County does not own dumpster sites, they do have a County convenience center for collection and disposal of inert and recycled materials. The County does not have a landfill.

The City of Lincolnton has privatized their garbage collection service for household customers. They have carts instead of dumpsters for convenience in moving trash. There is one dumpster at the city barn where citizens or businesses can dispose of cardboard for recycling purposes only.

PUBLIC SAFETY AND OFFICE OF EMERGENCY SERVICES

There are two law enforcement agencies operated by the local jurisdictions, the Lincoln County Sheriff's Department and the Lincolnton Police Department.

The Lincoln County Sheriff's Department is located on School Street in the Lincoln County Courthouse Annex. The Sheriff's Department operates the law enforcement department, jail, and the 911 communications with a total of 34 full time employees. Of that number, the law enforcement department has 11 sworn officers who are responsible for patrolling unincorporated Lincoln County. The officers answer calls, have authority to make arrests for violation of the law, and accompany prisoners to court, among other duties. The other 23 employees fully staff the Lincoln County jail and communications for 911 dispatch. The Lincoln County jail can house a maximum capacity of 94 inmates (male, female, county, city, and federal). Staff is responsible for inmates medical, clothing, food, transportation to and from the jail and to court. One unique feature of the Lincoln County jail is that Lincoln County has a contract with the U.S. Marshall's office for the security and housing of federal prisoners who are brought to the jail.

EMS/911 is an important function of the Sheriff's Department as each 911 call for assistance is answered by trained dispatchers who send officers, firefighters, or emergency personnel to assist the caller on site with situations of distress.

The Lincolnton Police Department, located on Ward Street, employs five sworn officers including the chief. In addition, there is one part-time sworn officer. Any arrests needing imprisonment are taken to the Lincoln County Jail for secure housing until released. The Lincolnton Police Department is partially responsible for animal control.

The Lincoln County Office of Emergency Services (LCOES) is located on Global Drive and covers Emergency Management Assistance, Emergency Management Service, and Fire/Rescue. The LCOES facility manages emergencies from calls of distress to disasters. The LCOES employs a staff of 6 paramedics and 6 AEMT or EMT's. Eight of the full time staff are cross-trained for fire emergencies and many of the part time staff are as well. The LCOES has a volunteer division which handles Auto extrication and emergency medical response, among other needs, when all ambulances are occupied. The LCOES staffs two ambulances 24/7. However, LCOES has three ambulances total which are rotated in and out of service as needed. LCOES also has one Fire engine for which cross-trained personnel from an ambulance crew can operate the fire engine when needed. In addition, a 21' boat is kept for water related events or emergencies.

LCOES uses the CODERED program to send emergency notifications by phone, email, text and social media to keep citizens informed of emergencies such as evacuation notices, utility outages, water main breaks, fire or floods, chemical spills, or other emergency situation. Citizens must register for this service but it is a free method to protect life and offer safety for residents.

Lincoln County has an approved Pre-disaster Hazard Mitigation Plan through the Georgia Emergency Management Agency that permits the application for Federal funds in the event of a large disaster.

LINCOLN COUNTY SENIOR CENTER

The Lincoln Center, a multi-use facility which is the current home of the Senior Citizen Center, is located at 160 May Avenue in Lincolnton. Transportation is provided for Seniors to the Center and the return home. Hot nutritious lunches are served daily for Lincoln County Senior Citizens. Great care is taken to see that all meals are nutritionally well balanced to further contribute to the wellness of the seniors. Activities in the daily program for the Seniors include line dancing, bingo, etc. Lincoln County proposes to use CDBG funds to construct a new wing on the Walker T. Norman Gymnasium facility at 1972 Rowland-York Drive for the Senior Citizens Center. The Senior Citizens Center will be a 3,600 square-foot wing with a multi-purpose activity room, dining room, a kitchen, office space for staff, etc.

FIRE PROTECTION

Firefighters protect citizens lives from fire, the effects of property damage from fire, manage emergencies as first responders, and assist with hazards caused by storm events. Lincoln County has four fire departments (six stations altogether) located in rural Lincoln County and the Lincoln County Office of Emergency Services has a fire engine at their office on Global Drive. All 70-75 firefighters in the Lincoln County rural fire departments are volunteer. The four rural fire stations are (north to south): 1) Beulah VFD located at SR 79 and Gills Point Road with one fire engine, one tanker, and one brush truck; 2) Midway VFD, located at 2578 Remsen Road with two engines, two knockers, and one brush truck; 3) Loco VFD with two stations (located at 2650 SR 220 and 2248 Lovelace Road) with two engines, one tanker, one brush truck, and one service truck; 4) Martin's Crossroads VFD with two stations (located at 3911 Double Branches Road and Bethany Church Road) with two engines, one brush truck and one service truck. There is a fire jurisdiction map that defines the areas within the county that each fire station is responsible for and each station assists with mutual aid for larger fire events.

The Volunteer Fire Fighters(VFF) are trained to the minimum level required by the State Fire Fighter's Standards and Training office (GFSTC) which is Volunteer Firefighters with live fire.

The City of Lincolnton has one fire department located uptown on Peachtree Street. There are a total of 16 volunteer firefighters who are trained to state standards, however, two are trained to National Professional Qualifications (NPQ) FF2 and two are trained to NPQ FF1 certification. The City has responds with automatic aid to incidents.

PARKS AND RECREATION

One of the great assets of Lincoln County is the development of waterfront parks and boat ramps for public use located throughout the 413-mile coastline of Clarks Hill Lake along the county's border. The recreation complex for Lincoln County is the Curry Colvin Recreation Park that is used by all county citizens.

In 2014, Lincoln County entered into an agreement with the Army Corps of Engineers for the County to take over and continue operating selected campgrounds and boat ramps built by the Corps during past years since Clarks Hill Lake was dammed. This agreement does not give the County funds for operation and maintenance, but the rental fees for campsites can be collected by the County and used for maintenance. This initial stage of the County operating the campgrounds keeps the public able to use the facilities and provides day use for some of the parks and overnight camping for others. The Corps will retain ownership of the parks and ramps.

The following list of parks and boat ramps are available for use in Lincoln County:

- 1) Broad River, 8181 Elberton Highway: Campsites, double and triple available (on lake) RENTAL
- 2) Clay Hill, 5701 Clay Hill Road: Campsites, 7 primitive (non-electric) and 10 campsites with water and electric (on lake) RENTAL
- 3) Hester's Ferry, 1864 Graball Road: Campsites, 10 primitive (non-electric) and 16 have water and electric (on lake) RENTAL
- 4) Eddie Fletcher Park Day Use and Ramp, U.S. Highway 378 at Soap Creek: boat ramp open year-round, day use
- 5) Cherokee Day Use Area, Highway 47 just across the Little River Bridge: boat ramp, restroom (comfort station), drinking water, picnic area, 2 large picnic shelters, playground, handicap accessible, courtesy dock, swim beach, and security lighting. Picnic shelter and beach area available.
- 6) Crooked Bridge Ramp, Highway 220, between Highway 47 and U.S. 378: ramp launches into Soap Creek.
- 7) Parkway Ramp, U.S. Highway 378 across from Elijah Clark State park

Boat ramps maintained by Lincoln County include Parkway Ramp across from Elijah Clark State Park and the Crooked Bridge Ramp.

The Curry Colvin Recreation Park has a full time recreation director and offers an outdoor swimming pool, tennis courts, ball fields, and gymnasium. Classes for all ages are offered for outdoor and indoor recreation. Added to the gymnasium in an existing wing is the East Georgia State College satellite campus.

Elijah Clark State Park is a major tourist attraction and recreational campground for visitors. Lincoln County and the City of Lincolnton promote use of this park as visitors will explore the surrounding county during their stay. There are 175 campsites and 20 cottages available through the Georgia Department of Natural Resources. In addition, local and regional meetings are held in the facilities.

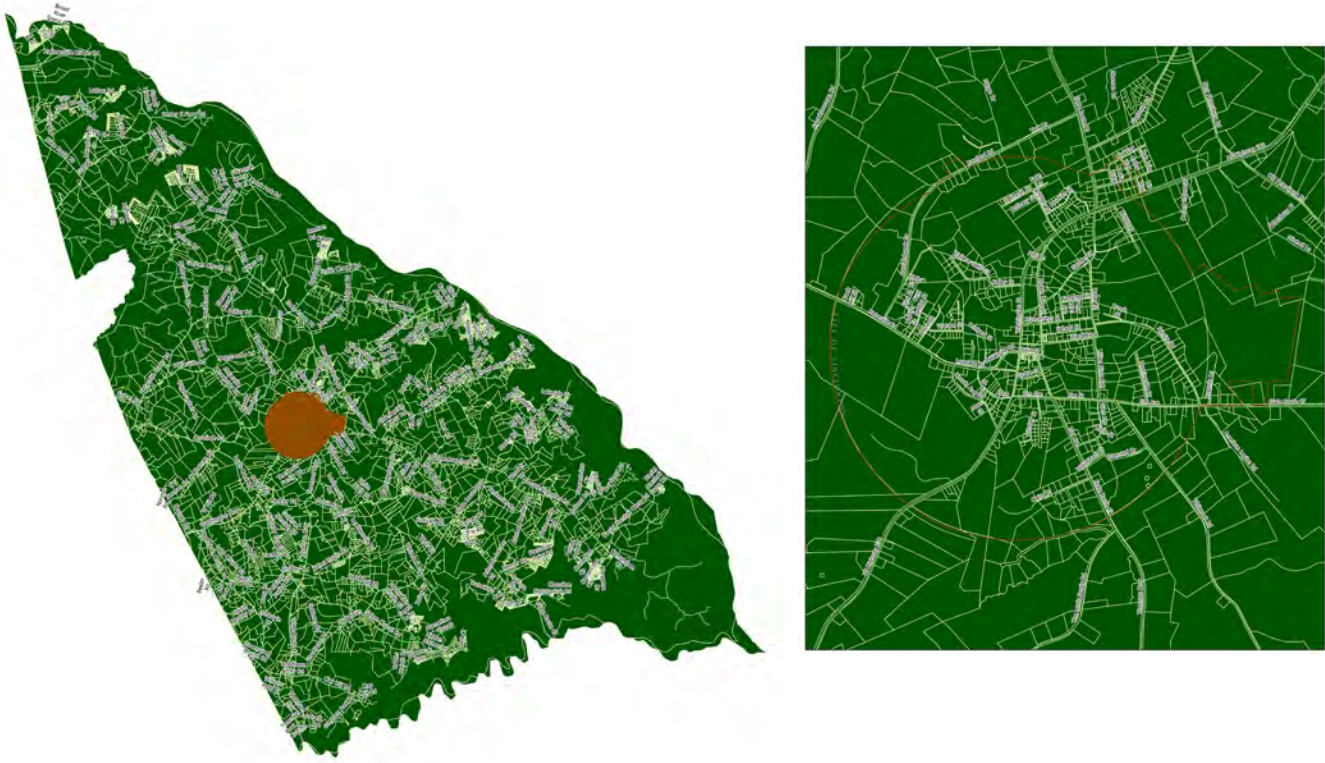


ROAD SYSTEM AND TRANSPORTATION

Lincoln County and the City of Lincolnton contain 373 miles of road according to the Georgia Department of Transportation (GDOT), Mileage by Route and Road System Report 445 for 2022, in Figure 3.1. Lincoln County has 75 miles of state route and 280 miles of county roads. The City of Lincolnton has 17.5 miles of city streets.

One of the goals of the plan is for Lincoln County to work with GDOT and obtain a fully four-laned entrance into the county and city to enable trucking of freight and ease of transportation for commuting to Interstate 20, particularly for SR 43 the Thomson Highway. For SR 47 (West to East) from Lincolnton to Augusta, partial road widening has been accomplished by construction of intermittent passing lanes.

Roads and Parcels, Lincoln County and City of Lincolnton



EDUCATIONAL FACILITIES AND EDUCATIONAL ATTAINMENT

The Lincoln County Board of Education has three public schools ranging from Pre-Kindergarten through 12th grade. Lincoln County Elementary School, Lincoln County Middle School, and the Lincoln County High School.

According to data from the Georgia Department of Education, total enrollment in 2020 for all schools was 1,104. Elementary enrollment 531, Middle School Enrollment 268, and High School Enrollment was 305. Total enrollment in the school system for 2015 was 1,188 and 2010 was 1,237.

In 2021, the graduation rate of the Lincoln County High School was 66 of 74 students with a graduation rate of 89.2%

East Georgia State College has a Move-on-When-Ready campus with classrooms and computer lab in a wing of the gymnasium at the Curry Colvin Recreation Complex. The campus opened in January 2016. Lincoln County High School Students may attend Move-on-when-Ready classes, while all persons are eligible to apply to the East Georgia State or University of Georgia System E-Core online courses and use all campus facilities. Students may achieve two years here and move on to another state university school system for the four-year degree. A key project goal is to move towards a permanent college teaching location or satellite campus offering degrees in resort management and marine biology to take advantage of Clark's Hill Lake.



Natural & Cultural Resources

CULTURAL RESOURCES

The cultural and historic resources of Lincoln County and the City of Lincolnton have been documented in several ways to the highest historic preservation standards with some of the best information available regarding existing historic resources. The County, City, and the Lincoln County Historical Society have provided a fulcrum of support for exploring and interpreting the early history of the county and city for the public with this documentation. In order to get to that place, in 1989-1990, an historic resources survey of over 600 buildings was completed city- and county-wide which inventoried all historic buildings over 50 years old. By 1993, three historic districts and one individual property were nominated and listed in the National Register of Historic Places.

A Multiple Property National Register Nomination for the entire county was approved by the National Park Service, the first successful project of its kind in the State of Georgia. A Multiple Property listing nominates groups of related significant properties that are organized into themes, trends, and patterns of history called historic contexts. It makes it easier to nominate properties discussed to the National Register.

Other NR listings in the county: Chennault House, Matthews House, and Simmons-Cullars House. A resulting driving brochure, the “Historic Resources of Lincoln County,” provides the following information:

Lincoln County has additional unincorporated communities that contributed to its growth and development in the 19th century: Lovelace Community, Goshen Community, Iveytown Community, and Leathersville Community.

Some of the County’s landmark historic resources include: Wright House, “The Fortson Place” (Benjamin F. Forstson House), Parks House, Guillebeau House, “Cherokee Hall” (Murray House), New Hope Baptist Church, Greenwood Baptist Church, Hephzibah Church, and Harmony Church.

The Lincolnton Historic District, listed in the National Register of Historic Places, includes 133 historic resources. Two historic structures standing today sit on land donated in the 1820s by the town’s founder Peter Lamar: the Lamar-Blanchard House built by him in 1828 as a tavern, is used today as the Lincoln County Economic Development Authority and Chamber of Commerce and the Lincolnton Presbyterian Church was built in 1823 as the town’s first church.

There is the distinctive uptown Anderson & Sons two-story commercial building, built c. 1915, as a mercantile store, and two more churches, the Lincolnton Methodist Church, c. 1915, Gothic and vernacular mix, and Lincolnton Baptist Church, c. 1920, neoclassical. The Lincoln County Courthouse, c. 1915, neo-classical, is attributed to G. Lloyd Preacher and his assistant Willis Irving.

Also in this citywide historic district are four distinctive houses; 1) the Glaze House, c. 1905, folk Victorian style; 2) the Mitchell-Turner House, c. 1911, was built from a Sears-Roebuck kit, “Modern Home No. 124;” 3) the Anderson-Colvin-McGee House, c. 1920, high style Craftsman; and 4) the Green House, c. 1932, Tudor Revival style.

The Lincoln County Historical Society was founded in 1982 and remains one of the few truly active historical societies in the state. Each year an annual “Pioneer Day” is held where living history demonstrations are given of life in the 18th and 19th centuries. The Society moved the historic Groves-May House, c. 1878, to Lumber Street, and restored it and added a community room. From here an entire historic complex consists of multiple historic buildings moved to the park that were languishing in the field. The Society has restored them and actively uses them for demonstrations to the public: Dr. Groves office, log smokehouse, cotton gin, Woodlawn mercantile store, and others. One of the assets for the City and County is the Lewis Family Pavilion, a covered, but open air stage where concerts and events can be held. The Lewis Family was an internationally known bluegrass gospel music group famous for their singing and performing from the early 1950’s until 2009 when the group retired. Part of the family, Jeff and Sherri Easter continue singing and gave funds for the Pavilion.

The Lincoln County Historical Park is one of county’s and city’s prime tourism attractions.

NATURAL RESOURCES

Natural resources in Lincoln County and City of Lincolnton range from the ever popular Clarks Hill Lake, to farms and rolling hills, to Graves Mountain crystals and to other natural attractions. Graves Mountain was once mined for rutile crystals but is now closed. Although privately owned, it has a caretaker who opens the grounds in the spring and fall to offer a Rock Swap & Dig free to the public. The Georgia Mineral Society has conducted field trips here since 1935. These natural resources are unique to county and city and must be protected to provide sustainability of the resources.

The naturally occurring water sources in Lincoln County and the City of Lincolnton are watersheds, groundwater recharge areas, wetlands, floodplains. In order to provide residents with a potable water supply deep water wells have the water extracted, filtered, treated, and piped to households, businesses, and industry.

WATERSHEDS

Watersheds are land formations which direct water (primarily rain water) flows in a certain direction and feeds smaller flows and water bodies. The following three watersheds are in Lincoln County:

Broad
Upper Savannah
Little

Watersheds in Lincoln County



GROUNDWATER RECHARGE AREAS

Specific surface areas where water passes through the ground to replenish underground water sources. Ground water recharge areas are environmentally sensitive and should be protected due to the reliance of these underground water sources for a majority of residents. The danger of toxic or hazardous waste contamination of this water supply is a possibility which must be considered when discussing the development or placement of any type of facility in these areas.

Groundwater Recharge Areas in Lincoln County

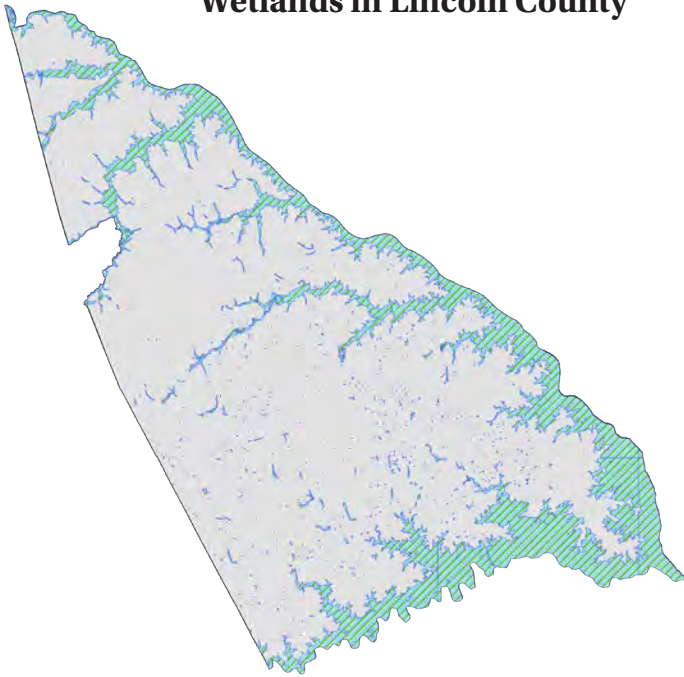


WETLANDS

Wetlands can be defined as lands which are saturated, either seasonally or permanently, which create an ecosystem that contains characteristic vegetation which has adapted to the unique soil conditions. Wetlands serve as a unique habitat as a breeding ground for fish and wildlife and as a home for unique plant and animal species that have adapted to these conditions.

The Georgia Department of Natural Resources has identified five categories of wetlands which require special protection through ordinances: open water, non-forested, forested, altered, and scrub/shrub.

Wetlands in Lincoln County



FLOODPLAINS

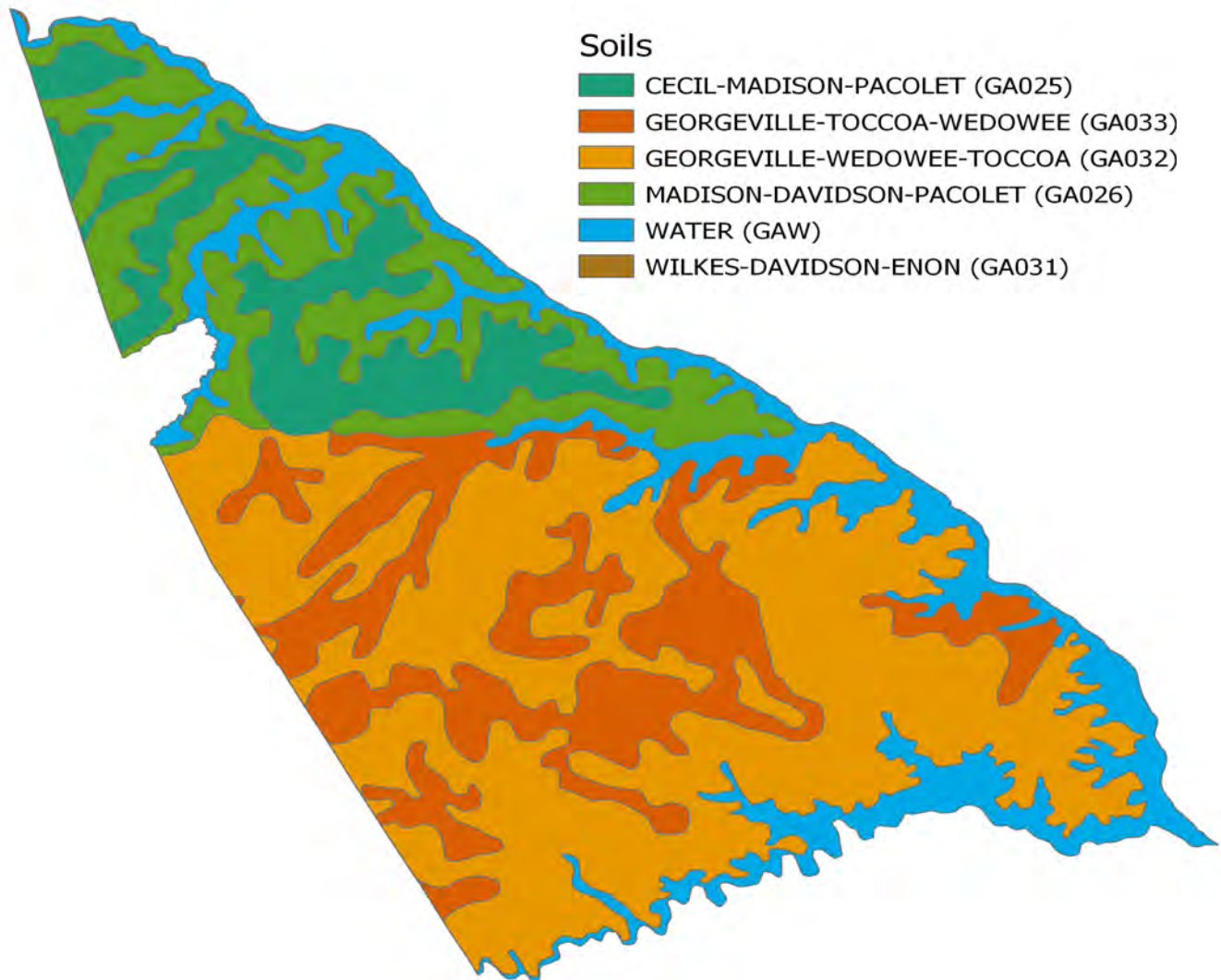
Flooding can be defined as a situation in which an overflow of water submerges land which usually is not inundated with water. A floodplain is an area designated to store natural water and conveyance, maintain water quality, and provide groundwater recharge.

Lincoln County has a great number of floodplains from Clark's Hill Lake. Floodplains are determined by the U.S. Federal Emergency Management Agency's Flood Insurance Rate Map.

SOILS

Soils in Lincoln County: The United States Department of Agriculture's Natural Resources Conservation Service has determined that the State of Georgia has seven different soil profile areas. A soil profile is a succession of soil layers of varying thickness and chemical properties. Lincoln County is located in the Southern Piedmont soil region. This is characterized by steep to gently rolling thin and well drained red soil with sandy loam surface layers over sandy clay to clay subsoils. This area has fair to good suitability for building foundations and fair to poor suitability for septic tanks.

Lincoln County's rural landscape remains largely undeveloped. There is now a business industrial park and about 12 subdivisions with water and sewer infrastructure installed for move in construction to take place. Lincoln County and the City of Lincolnton adopted a Soil Erosion Control Ordinance in 1988 according to the standards of the Environmental Protection Division. The county health department issues permits for septic tanks. Proper site selection for new development and monitoring of permitting should be continued for protection of the land from erosion.



Appendix B

PUBLIC INVOLVEMENT

This section of the plan include information on the following:

Stakeholders
Meetings
Community Survey



Stakeholder Committee

Walker Norman, Lincoln County Chairman
Cooper Cliatt, Lincoln County Commission
Robert Seymour, Lincoln County Public Works Director
Stephanie Eicher, Lincoln County Planner
Christine McNeese, Lincoln County Development Authority
Alana Burke, Lincolnton City Council
Martha Jo Austin, Lincolnton City Clerk
Daravios Cullars - Lincoln County Family Connection
Micheal McCombs - Mayor of Lincolnton

EDITORIALS

Tax Hikes and FBI Raids: Conservatives had better start showing

by Michael Ryan
Michael Ryan is Executive Editor of and appears as a courtesy of the Heartlander. Mike is the former Editorial Page Editor of the Augusta Chronicle.

government, despite having only Vice President Kamala Harris as a tiebreaking edge in the Senate. And his tweet resonated all the more Monday night, after news broke that the Biden FBI in a stunning

noted: "It's a total full-frontal assault. They're going after every single one of us. So we really need to start electing Republicans who know what time it is ... We have to not just bring these people to heel,

Gingrich. The GOP is the model of British Prime Minister Margaret Thatcher, who destroyed the moral legislation," Gingrich noted. "The Daily Signal Post

Public Hearing Notice Initiation of Lincoln County Joint Comprehensive Plan

Lincoln County and the City of Lincolnton will hold a joint public hearing on September 7, 2022 at 2:00p.m. in the Lincoln County Board of Commissioners conference room, located at 210 Humphrey Street, Lincolnton, GA. The purpose of this hearing is to announce the initiation of the new Lincoln County and City of Lincolnton joint comprehensive plan process by briefing members of the community on the process for plan development and opportunities for public participation, as well as gather general input. The Comprehensive Plan document establishes long-term goals and policies and a short-term work program by which the governments will manage future community growth and development. Residents wishing to comment or make suggestions should be in attendance.

Contacts:

Sherry McKellar, County Clerk, Phone: (706) 359-4444
Martha Jo Austin, City Clerk, Phone: (706) 359-3239

Lincoln County and the City of Lincolnton are local government jurisdictions 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. For a reasonable accommodation or if you need an alternative format or language, please call the contact person listed for the public hearing at least two business days prior to the public hearing during following hours: 8:00 a.m. - 5:00 p.m. Monday-Friday except holidays. Persons with hearing disabilities can contact the Georgia Relay Service, at (TDD) 1-800-255-0056, (Voice) 1-800-255-0135, 7-1-1.

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Lincoln County Joint Comprehensive Plan

Public Hearing

September 7, 2022 | 2pm | Lincoln Co. Board of Commissioners Conference Room



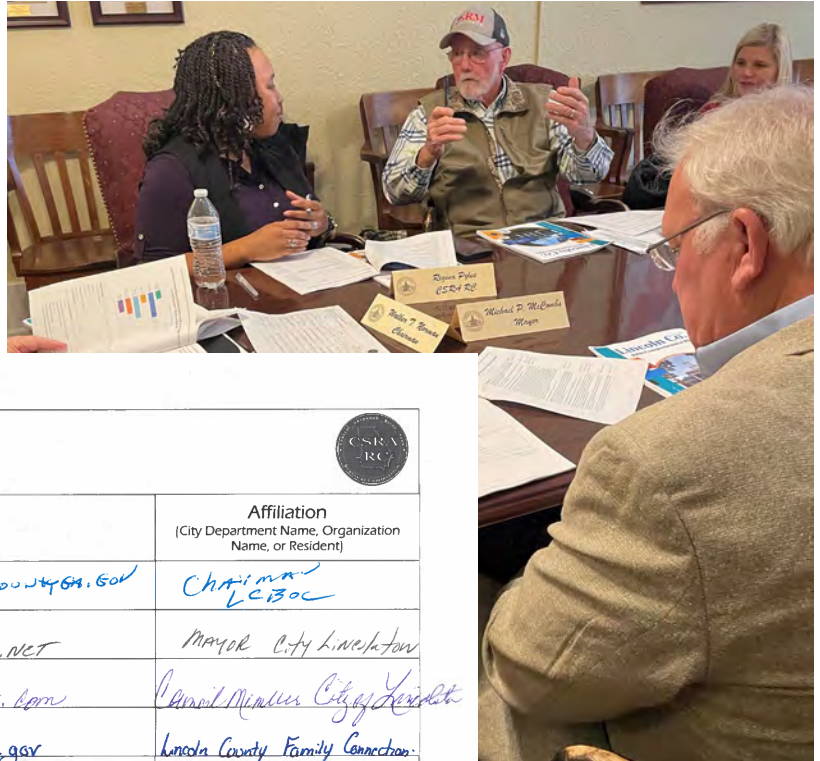
Name	Email	Affiliation (City Department Name, Organization Name, or Resident)
Nicee D. Long	nlong@csrarc.ga.gov	CSRA RC
Naggie Shaw	maggieecashaw@gmail.com	Resident
SHEA CHAMBERLAIN	silverstater8016@yahoo.com	Resident
WAIVER T. NORMAN	wnorman@lincolncountyga.gov	Lincoln County
Martha Jo Austin	maustin@cityoflincolnton.com	City of Lincolnton
CHRISTINE McNEESE	cmcneese@lincolncountyga.org	Lincoln Co. Development Auth.
Stephanie Eicher	Steicher@lincolncountyga.com	Lincoln County Planner
Robert D. Seymour	rseymour@lincolncountyga.com	Lincoln County PW
Gregg Grant	GreggGrant@gmail.com	Resident



Lincoln County Joint Comprehensive Plan
Stakeholder Committee Meeting
September 27, 2022 | 10 am | Lincoln Co. Board of Commissioners Conference Room



Name	Email	Affiliation (City Department Name, Organization Name, or Resident)
Parvaneh S. Collars	dcollars@lincolncountyga.com	Lincoln County Family Connection
Larry Hoolley	—	City of Lincoln
Mike McCullin	comins@nu-2.NET	City of Lincoln
Robert Seymour	rs Seymour@lincolncountyga.com	Lincoln County
Stephanie Eichler	Steicher@LincolnCountyga.gov	Lincoln County
Cooper Clatt	Cclatt@argusathelphre.com	Lincoln County
Martha Jo Austin	maustin@cityoflincolnton.com	City of Lincoln
WALKER Norman	wnorman@lincolncountygga.gov	Lincoln County
CHRISTINE McNEESE	cmcneese@lincolncontyga.org	LCDA



Lincoln County Joint Comprehensive Plan Stakeholders Meeting #3 January 26, 2023 2pm Lincoln Co. Courthouse		
Name	Email	Affiliation (City Department Name, Organization Name, or Resident)
Walter F. Fournier	WFOURNIER@LINCOLNCOUNTYGA.GOV	Chairman LCBOC
Michael P. McComb	COMINS@DU-Z.NET	Mayor City of Lincoln
Renee J. Fiske	rfiske@whitetechnology.com	Parish Manager City of Lincoln
Deborah S. Collins	dcollins@lincolncountyga.gov	Lincoln County Family Connection
CHRISTINE MCNEESE	cmcneese@lincolncountyga.org	Exec. Dir. LC Development Authority
Robert Seymour	rs Seymour@lincolncountyga.com	Public Works Director
Stephanie Eichen	Steicher@LincolnCountyga.com	Planner
Martina Jo Austin	maustin@cityoflincolnton.com	City Clerk
Cooper Clatt	CCLATT@augustatelephone.com	Commissioner



Lincoln Co. Conservation District

submissions, resubmit a subsequent RFP, terminate, restructure, or amend this procurement process at any time. Evaluation criteria contained herein shall be used in evaluating qualifications. The City may contact any consultant after receiving its submittal to seek clarification of any portion thereof. The City reserves the right to request additional information from any consultant if the City deems such information necessary to further evaluate the consultant's qualifications. In the event the City elects to negotiate a contract with a selected consultant, the City reserves the right to negotiate such terms and conditions of the contract, including, but not limited to scope, role, price, and staffing which may be in the best interests of the City.

All qualifications will be evaluated in terms of project approach, timing, experience, quality of work, and capacity of performance. Past performances on local government construction projects will be assessed in terms of timeliness, completing work within budget, and quality of work.

Interested parties are invited to secure a Request for Qualifications package by calling Nicee D. Long, Planning and Development Specialist, 706-651-7301 or emailing nlong@csra.ga.gov.

Request for Qualifications are due no later than 4:30 PM, Monday, March 6, 2023. Proposals submitted by mail should be addressed: Nicee D. Long, CSRA Regional Commission, 3626 Walton Way Ext. Suite 300, Augusta, GA 30909. Request for Qualifications received after 4:30 p.m. on March 6, 2023 will not be considered.

The City of Lincolnton reserves the right to accept or reject any or all proposals. The City of Lincolnton is an Equal Opportunity Employer.

Mike McCombs
Mayor



The public is invited to attend.

SWCD to meet

The Supervisors of the Lincoln County Soil and Water Conservation District will meet on Thursday, February 2, at 10:00 a.m. at Lincoln County Agricultural Building (UGA Extension), 2080 Rowland-York Drive, Lincolnton, GA 30817.

Please make plans to attend this important meeting.

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Public Hearing Notice
Lincoln County Joint Comprehensive Plan

Lincoln County and the City of Lincolnton will hold a joint public hearing on February 13, 2023 at 2:00p.m. in the Lincoln County Board of Commissioners conference room in the Lincoln County courthouse, located at 210 Humphrey Street, Lincolnton, GA. The purpose of this hearing is to brief the community on the contents of the Lincoln County Joint Comprehensive Plan and notify residents of when the plan will be submitted for review. Residents wishing to comment or make suggestions should be in attendance.

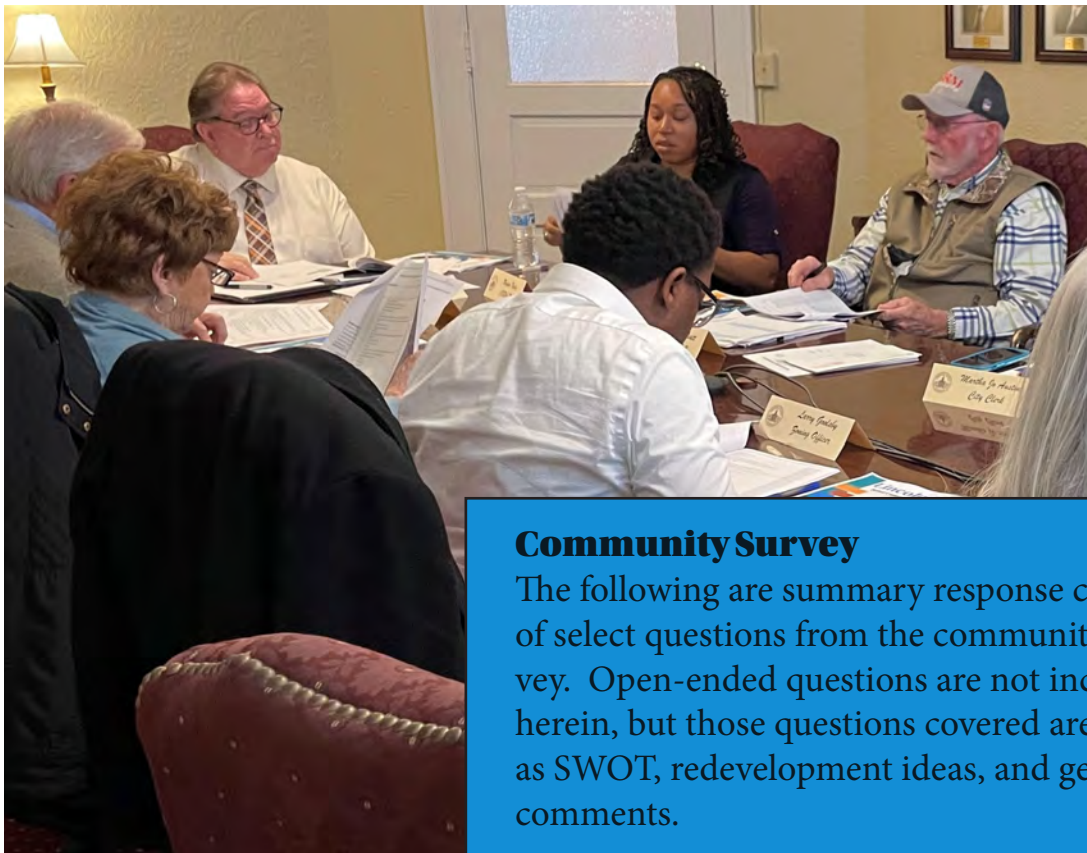
The draft plan is available digitally on the county website (<https://www.lincolncountyga.com/p-z-forms-and-documents>) and the CSRA Regional Commission's website (<https://csra.ga.gov/planning-documents>) and in hard copy at Lincolnton city hall and Lincoln County courthouse.

Contacts:
Sherry McKellar, County Clerk, Phone: (706) 359-4444
Martha Jo Austin, City Clerk, Phone: (706) 359-3239

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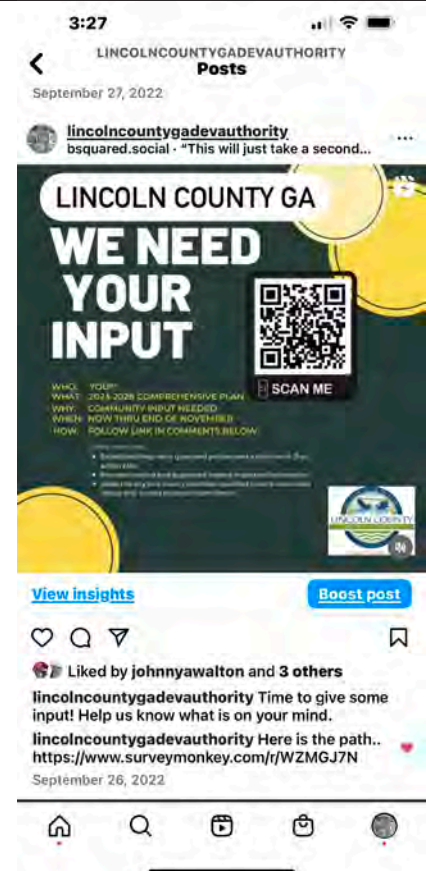
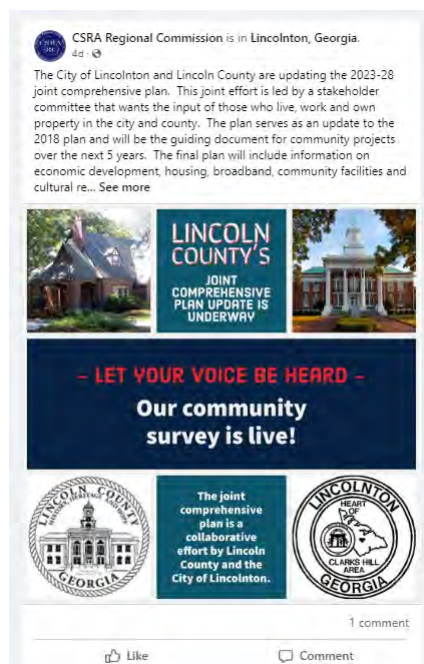
Lincolnton / Joint
Lincoln County Public Hearing
Joint Comprehensive Plan
February 13, 2023 - 2:00pm
Sign-in Sheet

1. Mike McCombs Mayor
2. Klara D. Burke Comptroller
3. Ray Goshy City of Lincolnton
4. Robert D. Seepma Lincoln County
5. Christine McNeese Lincoln County Dev. Authority
6. Martha Jo Austin City of Lincolnton
7. Larry Collins Lincoln County
8. _____
9. _____
10. _____



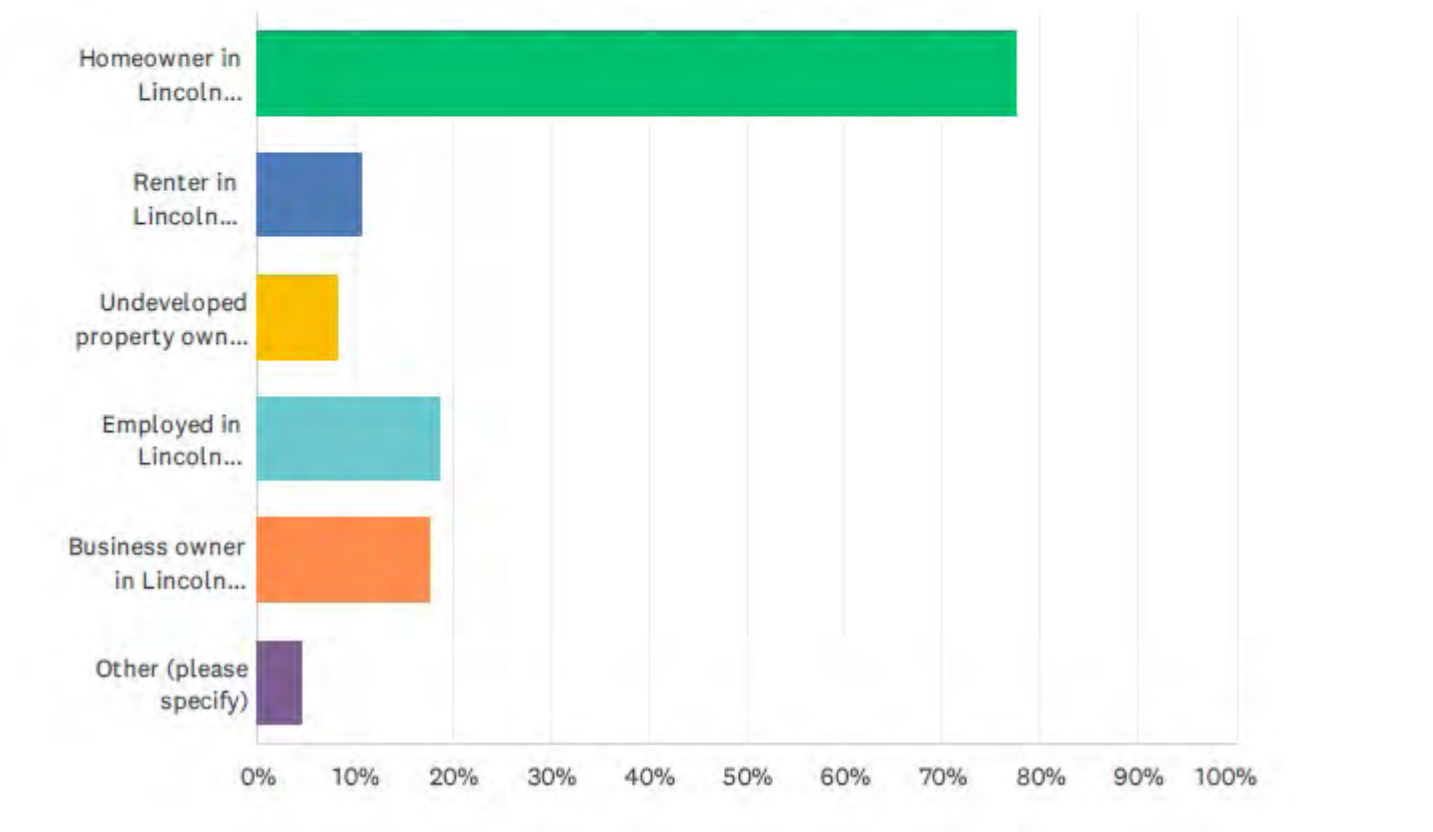
Community Survey

The following are summary response charts of select questions from the community survey. Open-ended questions are not included herein, but those questions covered areas such as SWOT, redevelopment ideas, and general comments.



Which of the following categories currently describes you? Check that apply.

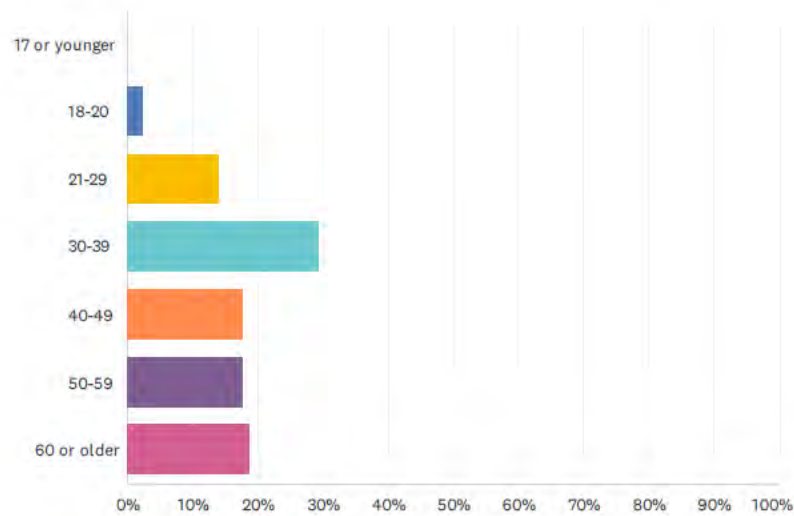
Answered: 85 Skipped: 0



OTHER (PLEASE SPECIFY)	DATE
Retired/ now work from home	11/22/2022 12:0
Lease property	9/27/2022 12:40
Live at home with parents	9/27/2022 11:07
Live in Lincolnton	9/27/2022 9:56

Q2 What is your age?

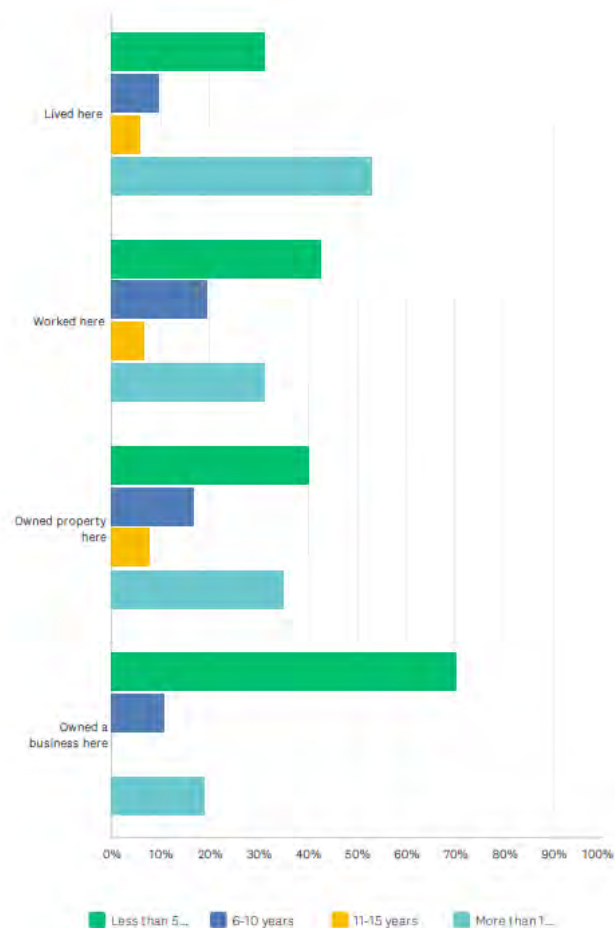
Answered: 85 Skipped: 0



Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

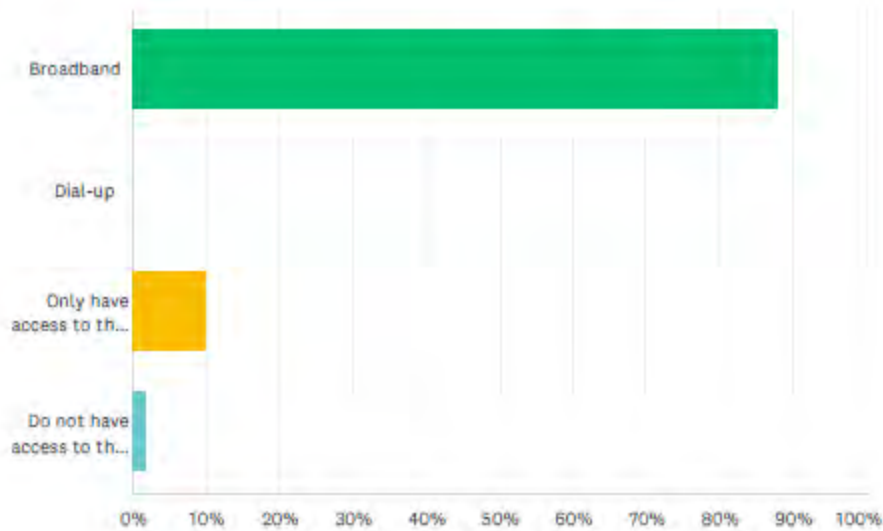
Q3 How long have you lived, worked, or owned property in our community?

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey



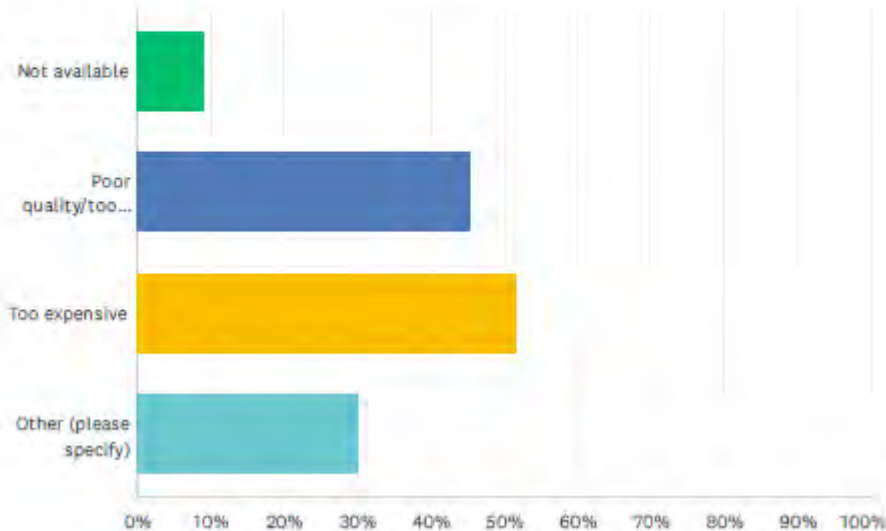
Q8 What type of internet access do you have at home?

Answered: 50 Skipped: 35



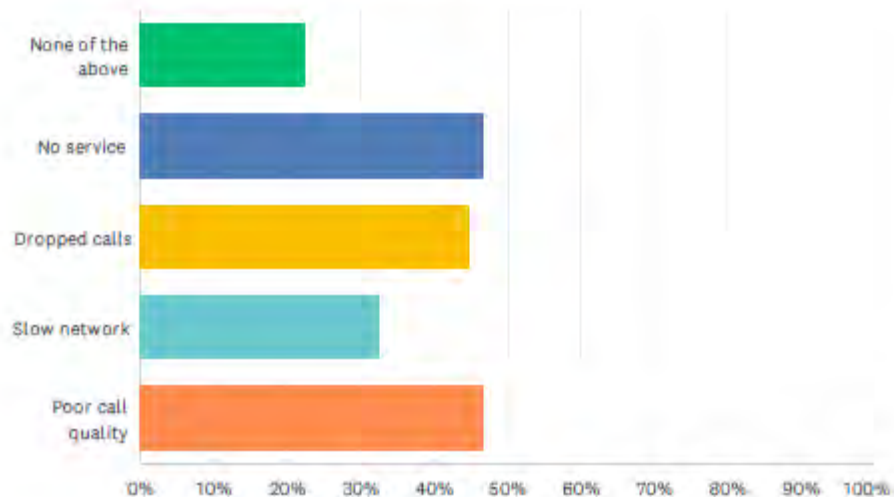
Q9 What issues do you have with internet at home? Check all that apply.

Answered: 33 Skipped: 52



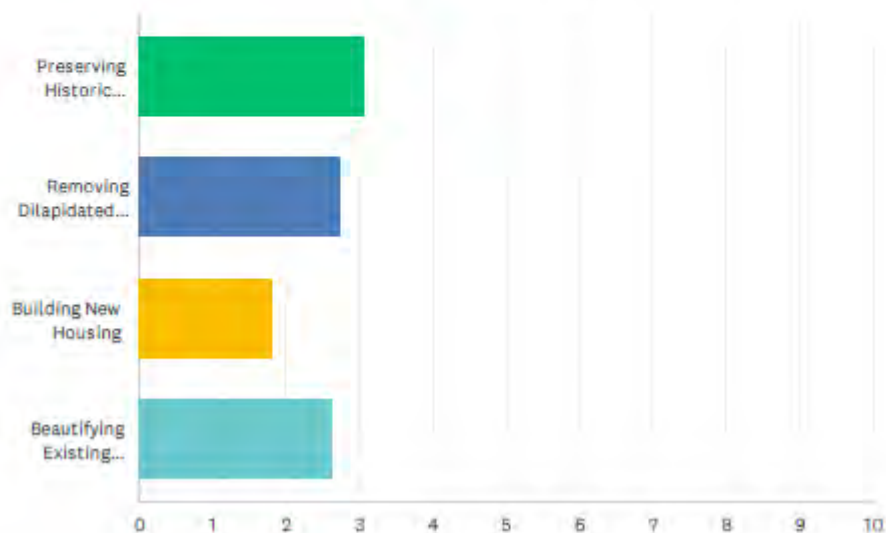
Q10 What issues do you have with cell phone service at home? Check all that apply.

Answered: 49 Skipped: 36



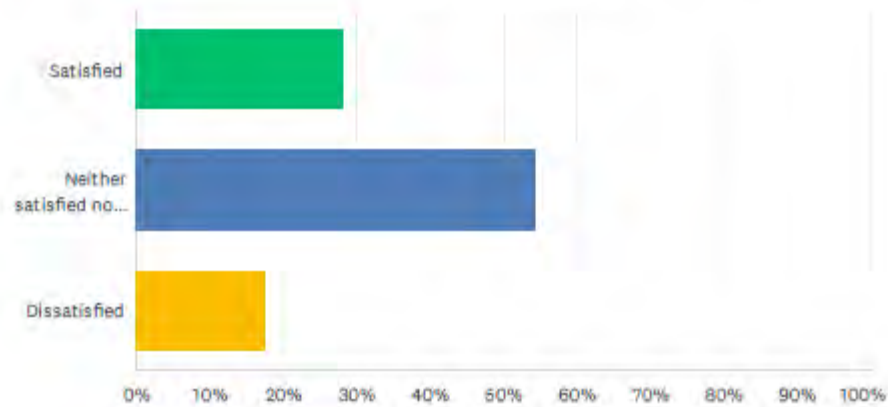
Q11 Please rank the following housing topics based on their importance to you from 1 to 4 (with 1 being most important). Each answer option does require a number rank, and each number can only be used once.

Answered: 45 Skipped: 40



Q12 How satisfied are you with the variety of housing in our community?

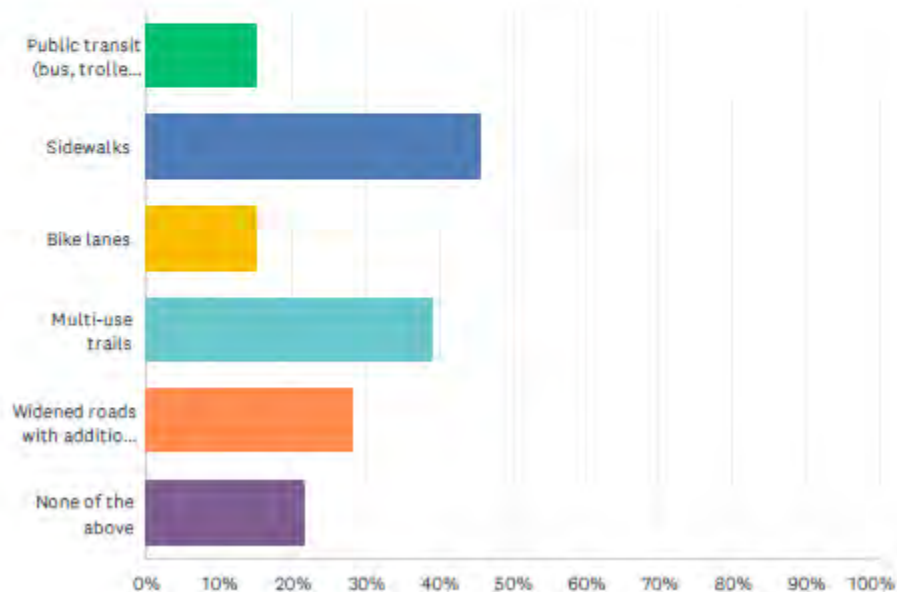
Answered: 46 Skipped: 39



Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

Q13 Which transportation improvements would you like to see more of in our community? Check all that apply.

Answered: 46 Skipped: 39



#	OTHER (PLEASE SPECIFY)	DATE
1	No issues	11/22/2022 9:06 PM
2	Less police harassing people for petty traffic violations	10/30/2022 7:38 PM
3	Good paved roads-not the aggregate	9/27/2022 10:18 PM
4	Better roads	9/27/2022 12:54 PM
5	Pave existing and dirt roads	9/27/2022 11:52 AM
6	Better Businesses and cell towers also more funding for LAW ENFORCEMENT!!!!!!!	9/27/2022 9:33 AM
7	I often see folks walking along roads outside of town in the dark- safety should be our priority	9/27/2022 9:07 AM

20 / 33

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

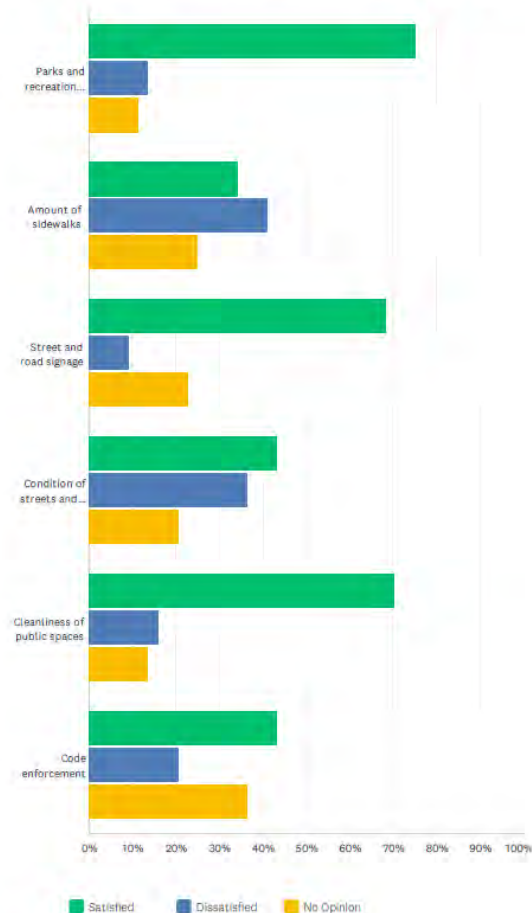
for those who do not have vehicles

8	We are a rural community. I love it and want to see all roads maintained better	9/27/2022 9:06 AM
9	Sidewalks need pressure washing.	9/27/2022 8:46 AM

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

Q14 Please rate your level of satisfaction with each of the following public services or facilities.

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey



Q15 If you answered "dissatisfied" to any of the items above, please list the item and let us know why.

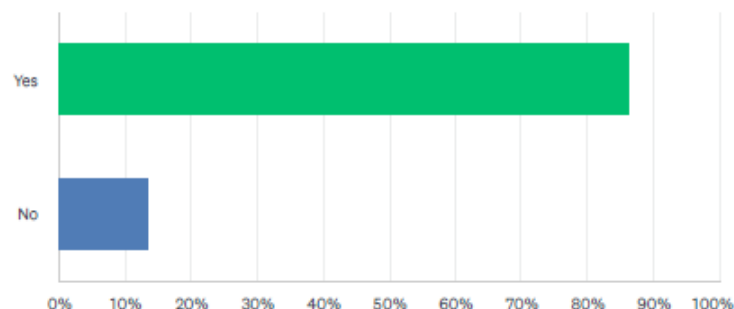
Answered: 13 Skipped: 72

#	RESPONSES	DATE
1	Sidewalks: There are areas even in town that need sidewalks because people walk on busy roads. Condition of streets: We have many dirt roads in the county that have large number of people living on them but they are not paved.	11/22/2022 12:16 AM
2	Parks and Rec. - we need more community parks and spaces.	10/31/2022 7:25 AM
3	I live on one of the most historic streets in the city of Lincolnton and I have to push a stroller in the street because our sidewalks are awful. My children have to ride their bikes in the street because of the bumps.	9/28/2022 1:52 PM
4	Sidewalks around the school and connecting LCES with the middle and high school as well as the recreation department. I've seen many kids walking in the street from the schools to the rec. Several streets need repaved. Would be nice to have nice roads esp the main roads. Not the aggregate	9/27/2022 10:18 PM
5	We need more sidewalks and the sidewalks we have are in need of repair and limb removal.	9/27/2022 8:41 PM
6	Not enough space....	9/27/2022 12:56 PM
7	Currently live on dirt road. Not well maintained	9/27/2022 11:53 AM
8	Cost to get use rec areas at the lake is crazy. Side walks in town are good but there are areas that need sidewalks like between Main Street and Hardee's.	9/27/2022 11:03 AM
9	Listed earlier	9/27/2022 9:34 AM
10	I do think Code Enforcement is important, but I don't want someone telling me what I can and cannot do on my farm/property	9/27/2022 9:10 AM
11	While in town you should be able to walk everywhere by sidewalk.	9/26/2022 8:42 PM
12	I don't like the outside look of many of the businesses downtown and I know that the Development Authority had money to do that and businesses still didn't fix them. I feel that there are buildings downtown that need to be cleaned up or made usable and they should be fine if they don't	9/26/2022 5:31 PM
13	I feel there is a "minimalistic" approach to Parks and Recreation, amenities are limited, while some improvements, feel there could be more offerings across the county. There are limited sidewalks, and most are very narrow, not allowing side by side walking. We are seeing more golf carts being used in town, and more walkers, but they are limited in the paths that can be used, and there is a lack of public pavilions, and restrooms.	9/26/2022 11:54 AM

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

Q16 Do you use public facilities such as parks, trails, and ball fields?

Answered: 44 Skipped: 41



Q17 Describe any activities you would like to do in our community but cannot.

Answered: 21 Skipped: 64

#	RESPONSES	DATE
1	Bowling . Saturday market with local produce	11/22/2022 9:08 PM
2	More festivals Movies Carnival/Fair	11/22/2022 9:55 AM
3	Grocery shopping at a nice, well maintained grocery store.	11/22/2022 12:24 AM
4	N/a	10/31/2022 7:29 AM
5	None at this time.	10/30/2022 3:33 PM
6	Have more in county restaurants and a large, updated grocery store(s), for improved dining and shopping. Have a large farmers market at a central county location 2-4 weekends a month.	10/3/2022 8:32 PM
7	I'd love to see more activities for the children in the community that aren't just Rec sports or school sports. Something like a gymnastics or dance class open up somewhere in the county!	9/29/2022 9:31 PM
8	Buy groceries in a clean facility that isn't disgusting.	9/28/2022 1:54 PM
9	1) Shop at a fully stocked grocery store where the coolers are working and food is not spoiled. 2) concerts in the park or rec (other than gospel or bluegrass) even local artists would be great.	9/27/2022 10:18 PM
10	Shop for groceries. Dine in at different restaurants. Attend fall and spring festivals	9/27/2022 8:46 PM
11	Volleyball, golf, need more things to do for younger kids	9/27/2022 2:32 PM
12	Kind of silly question, unless it's not going to football games because lack of handrails at field.	9/27/2022 1:08 PM
13	Well planned community events	9/27/2022 12:37 PM
14	Movies, skating, bowling, etc	9/27/2022 11:04 AM
15	Have better shopping areas and CELL SERVICE!!!!	9/27/2022 9:35 AM
16	Grocery shop,	9/27/2022 9:11 AM
17	More opportunities for children - gymnastics, etc	9/27/2022 8:26 AM
18	Arts & Craft festival	9/26/2022 8:46 PM
19	Some night life-- but we are working on it at the Legion. Yep some Putt-Putt golf or bowling alley or something for the kids to do	9/26/2022 5:37 PM
20	Social opportunities outside of church	9/26/2022 3:13 PM
21	A central location for meeting friends during the day for a picnic.	9/26/2022 1:31 PM

Q18 Describe areas of our community in need of revitalization/improvement (e.g. a particular street, building, etc.) and what needs improving.

Answered: 25 Skipped: 60

#	RESPONSES	DATE
1	Some of the buildings downtown need a fresh coat of paint and businesses in them.	11/22/2022 9:55 AM
2	There are privately owned buildings around town (Hwy 378, Main Street, Peachtree Street) that need new paint and new awnings.	11/22/2022 12:24 AM
3	Old jimtex building. Old hotel building and other buildings down town. We need to restore existing historic buildings and generate local owned and local serving business BEFORE any new growth needs to occur.	10/31/2022 7:29 AM
4	The old school lot behind the stadium. Could be used as a farmers market. A small open pole barn to hold events such as a farmers market would be awesome. Along with a playground etc.	10/30/2022 8:07 PM
5	It has been great to see improvements on buildings on Main St and Peachtree St. New awnings and signage and other improvements have been very well done. It would be wonderful to see this continue with other buildings in town.	10/30/2022 3:33 PM
6	Keep encouraging new businesses in the abandoned businesses. Maybe convert some to flex offices with high speed, low cost internet, and advanced video conferencing, so people work there instead of their homes that have poor or slow internet.	10/3/2022 8:32 PM
7	The grocery store. The elementary school. Also need more police presence in the parking lot of bell's as there is a gentlemen often panhandling for money.	9/29/2022 9:31 PM
8	Some Main Street and peachtree street buildings look awful. B&J appliance, the clutter at Spratlin's, the 2 story building beside wengrows	9/28/2022 1:54 PM
9	Goshen street has a wood building that is falling in with one of the front doors wide open for over a year. Lots of other areas with empty buildings some that are falling in. Could search for owner or auction off property	9/27/2022 10:18 PM
10	B&J appliance IGA Spratlins on Main Street is an eyesore Huddle House Bells American Legion	9/27/2022 8:46 PM
11	By chicken house need a playground for all these kids over here	9/27/2022 2:32 PM
12	More help for people with mobility issues	9/27/2022 1:08 PM
13	Downtown. Things not looking "junky".	9/27/2022 12:37 PM
14	The whole town	9/27/2022 9:35 AM
15	I wish the Pepsi Cola mural could be re-done. Another grocery store would be nice. Save the old buildings/structures (they are our history).	9/27/2022 9:15 AM
16	There are some real rough patches with old falling apart trailers through out the county	9/27/2022 9:11 AM
17	We need a reason for people to come to LC, particularly to areas like downtown, and spend an afternoon. There is nothing to drive that behavior. People visiting WMA and campsites are great, but if they would spend a morning downtown shopping, eating, watching football, etc, our community would be better for it.	9/27/2022 9:10 AM
18	Lincoln county is a great place to live. I appreciate how kind and caring the community has been to my children. The only improvement that I feel is needed is that the schools and sidewalks could benefit from pressure washing. Some spots are looking a little rough.	9/27/2022 8:50 AM
19	downtown loft buildings	9/27/2022 8:26 AM

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

20	The grocery store option and restaurants.	9/26/2022 8:46 PM
21	Let's start with the Main Street downtown. The old hotel looks horrible. The front of the appliance shop looks terrible. The back of the appliance store looks nasty and dangerous. And this is not aimed at that particular business I like all those people. There's an empty building next to the dry cleaners why is it not available for somebody to use? They just let it sit there that's not good for downtown area-- that building down near the gas station in the fork that's just half a building that says Seafood on it or something needs torn down. Things like that we ought to have some kind of stipulations that force people to clean up and tear down buildings instead of letting them just sit there and rot	9/26/2022 5:37 PM
22	Fair grounds. I see the American Legion has a nice area but it needs more support.	9/26/2022 4:19 PM
23	Almost all buildings downtown. Also the yellow gas station entering town as well as welcome signs.	9/26/2022 3:13 PM
24	DOWNTOWN...All of it	9/26/2022 3:12 PM
25	Downtown buildings that are vacant for many years, parking designated for business owners that doesn't take away from tourist and potential customers. Grocery store that is updated and clean with better offerings. Improved intersections with clarity. Blythe programs to remove dilapidated buildings in Lincolnton on major road ways and in the county where they are hazardous. Peachtree Street, Main Street, US 378 and merge to Peachtree Street. Stop light at 378 and Goshen Street. Elm Street and N. Peachtree (coming in from McDuffie county).	9/26/2022 1:31 PM

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

Q19 List three small actions or activities our local governments could undertake to improve the quality of life in your neighborhood or the community as a whole.

Answered: 20 Skipped: 65

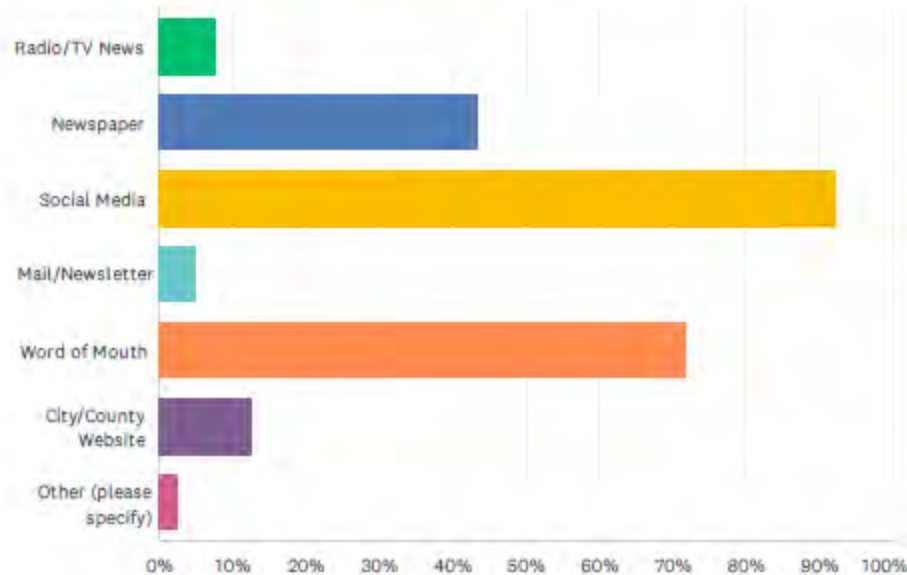
ANSWER CHOICES		RESPONSES
1		100.00% 20
2		90.00% 18
3		65.00% 13
#	1	DATE
1	Assistant. Internet to high property tax payers	11/22/2022 9:08 PM
2	Push for more businesses to come here. Another fast food option, grocery store, and a small walmart, and Lincolnton would be perfect.	11/22/2022 9:55 AM
3	Attract a better grocery store	11/22/2022 12:24 AM
4	Developed community parks in city limits and close proximity to town	10/31/2022 7:29 AM
5	Get community events out there on social media.	10/30/2022 8:07 PM
6	Crack down on drug dealers and worry less about traffic violations	10/30/2022 7:39 PM
7	Nationally certified, fully staffed, fire stations with EMS personnel	10/3/2022 8:32 PM
8	More police presence	9/29/2022 9:31 PM
9	Bring in more businesses especially restaurants that stay open past 8pm during the week and weekends	9/27/2022 10:18 PM
10	See above	9/27/2022 1:08 PM
11	Animal control	9/27/2022 11:04 AM
12	More funding for law enforcement	9/27/2022 9:35 AM
13	Support local businesses- specifically help them secure affordable space downtown.	9/27/2022 9:10 AM
14	work with business owners to improve storefront downtown	9/27/2022 8:26 AM
15	Force businesses to update store fronts	9/26/2022 8:46 PM
16	Institute strict building codes	9/26/2022 5:37 PM
17	Boat House for rowing Crew. It is a big activity that the area could gain some tourism.	9/26/2022 4:19 PM
18	Cell service	9/26/2022 3:13 PM
19	facade upgrades in town	9/26/2022 3:12 PM
20	Community spaces & activities	9/26/2022 1:31 PM
#	2	DATE
1	Mail service to new neighborhoods and not community mailbox at front of neighborhood as I will still have to go to post office if a box larger than mailbox comes to my house	11/22/2022 9:08 PM
2	Pave more roads	11/22/2022 12:24 AM
3	Not let developers come into Lincoln County. That will ruin the small town atmosphere.	10/30/2022 8:07 PM

Lincoln County and the city of Lincolnton Joint Comprehensive Plan 2023-2028 Community Survey

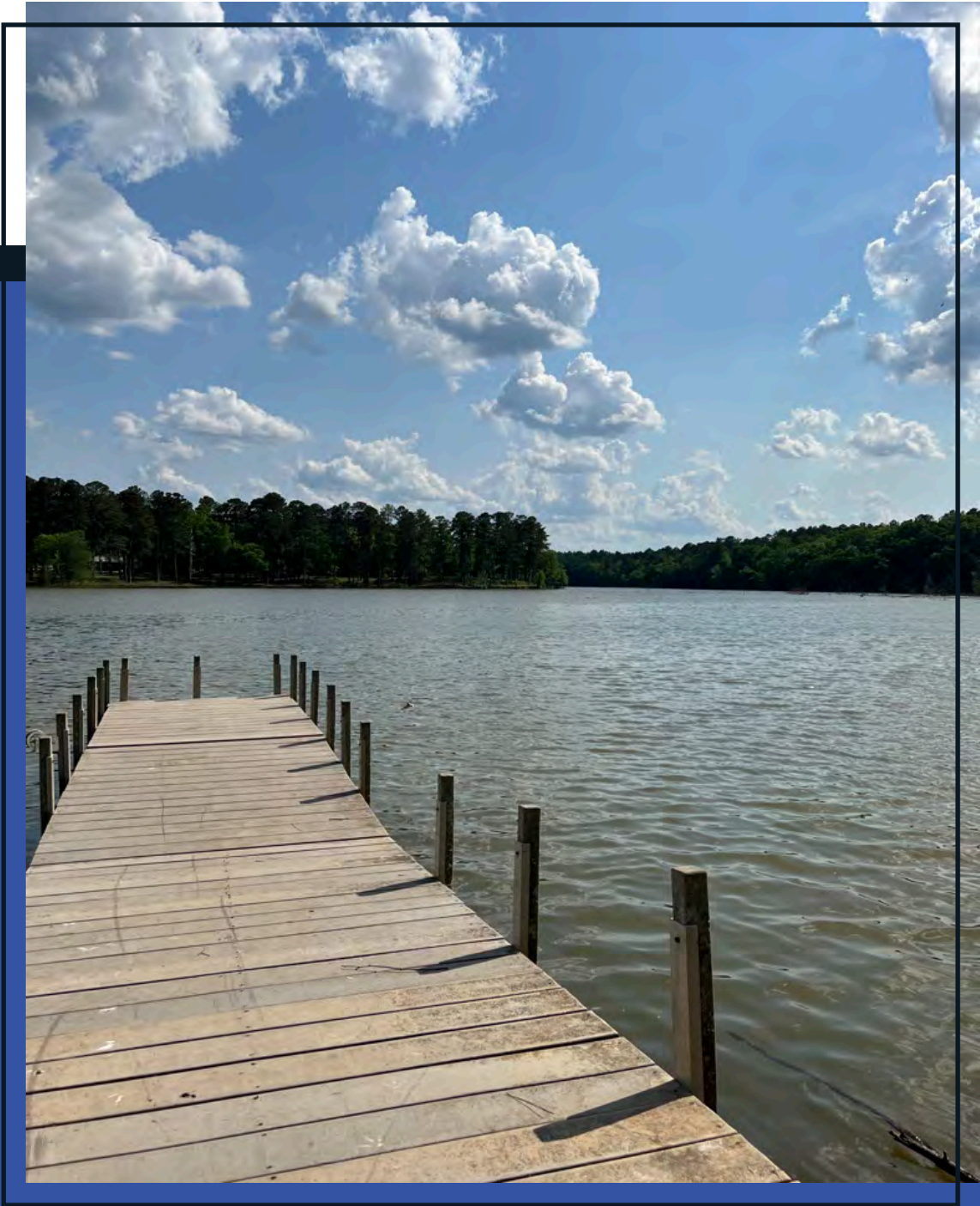
4	Eliminate city taxes	10/30/2022 7:39 PM
5	Offer GA technical college or self improvement courses at the library	10/3/2022 8:32 PM
6	More cell towers	9/29/2022 9:31 PM
7	Work with grocery store owner to improve look and quality. Maybe a grant needs to be applied for?	9/27/2022 10:18 PM
8	Help with taxes	9/27/2022 1:08 PM
9	Somewhere for teens to hang out in town	9/27/2022 11:04 AM
10	Cell towers	9/27/2022 9:35 AM
11	Actually work the comprehensive plans that are made- I'm not sure which tasks out of the 2015ish one were actually accomplished and I'd be interested to know what % of goals are met	9/27/2022 9:10 AM
12	encourage upkeep of all property	9/27/2022 8:26 AM
13	Add competition for grocery options	9/26/2022 8:46 PM
14	Have serious violations for everyone not just certain people if there's a problem downtown with the building	9/26/2022 5:37 PM
15	Pick a holiday and make it bigger and bigger every year.	9/26/2022 4:19 PM
16	Welcome signage	9/26/2022 3:13 PM
17	force building owners to do something with vacant property	9/26/2022 3:12 PM
18	Create a Blythe program with fines for vacant dilapidated buildings	9/26/2022 1:31 PM
#	3	DATE
1	Attract another chain restaurant	11/22/2022 12:24 AM
2	Cut property taxes	10/30/2022 8:07 PM
3	Nice government housing out of the middle of town	10/30/2022 7:39 PM
4	More opportunities for small business starters	9/29/2022 9:31 PM
5	Several properties with vacant buildings some falling in. Gov workers could research owners and reach out to them about selling or auction properties	9/27/2022 10:18 PM
6	Better grocery store	9/27/2022 1:08 PM
7	Nice restaurants	9/27/2022 11:04 AM
8	Things to do	9/27/2022 9:35 AM
9	patrol lake areas where golf carts and children play for speed control	9/27/2022 8:26 AM
10	Organize a general forced cleanup city and county that involves the owners and the people that rent the buildings	9/26/2022 5:37 PM
11	Making people that own property in the downtown area maintain it	9/26/2022 3:13 PM
12	encourage more small businesses to move here	9/26/2022 3:12 PM
13	Create an ordinance requiring downtown business owners to park in places other than N Peachtree or Main street	9/26/2022 1:31 PM

Q20 How do you typically find out about what's happening in our community? Check all that apply.

Answered: 39 Skipped: 46



ANSWER CHOICES	RESPONSES	
Radio/TV News	7.69%	3
Newspaper	43.59%	17
Social Media	92.31%	36
Mail/Newsletter	5.13%	2
Word of Mouth	71.79%	28
City/County Website	12.82%	5
Other (please specify)	2.56%	1
Total Respondents: 39		





Area Labor Profile

Lincoln

County



Updated: May 2024

Labor Force Activity

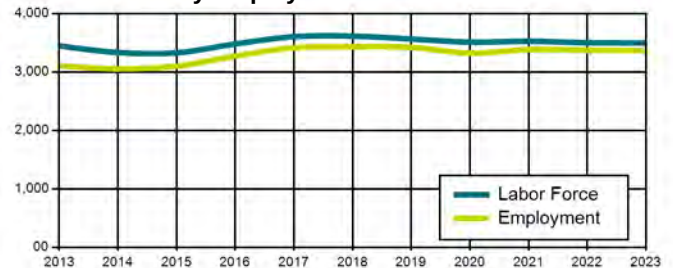
March 2024

	Labor Force	Employed	Unemployed	Rate
Lincoln	3,505	3,374	131	3.7%
Columbia	77,583	75,226	2,357	3.0%
Elbert	8,405	8,100	305	3.6%
McDuffie	8,568	8,169	399	4.7%
Wilkes	3,812	3,687	125	3.3%
Lincoln Area	101,873	98,556	3,317	3.3%
Georgia	5,402,969	5,230,408	172,561	3.2%
United States	167,960,000	161,356,000	6,604,000	3.9%

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

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

Lincoln County Employment Trends



Unemployment Rate Trends

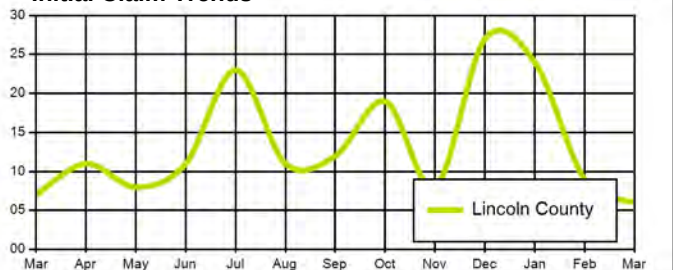


Initial Claims Activity

	March 2024	February 2024	January 2024	Total
Lincoln	6	9	24	39
Columbia	132	208	313	653
Elbert	21	44	110	175
McDuffie	56	59	177	292
Wilkes	5	4	30	39
Lincoln Area	220	324	654	1,198

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

Initial Claim Trends



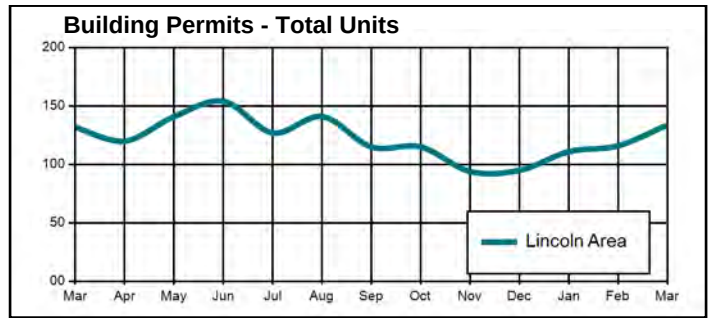
Initial Claim Trends



Building Permit Construction Activity

	Lincoln Area			
	March 2024	February 2024	January 2024	Total
Totals	134	116	111	361
Family residential	130	116	111	357
Multi family resident	4	0	0	4

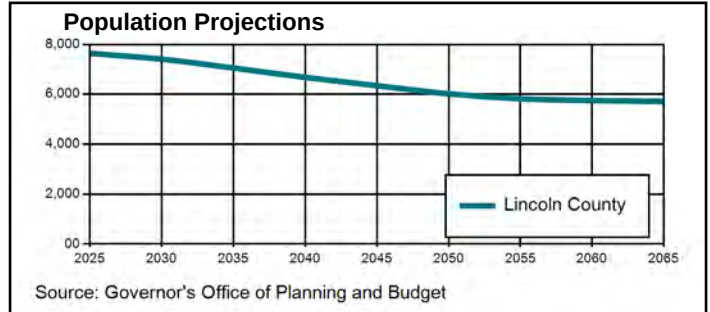
Source: U.S. Census Bureau.



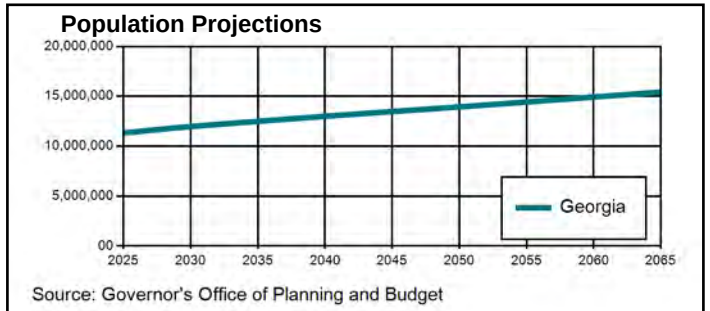
Population Activity

	Annual 2022	Annual 2021	Difference
Lincoln	7,841	7,749	92
Columbia	162,419	159,639	2,780
Elbert	19,814	19,579	235
McDuffie	21,713	21,633	80
Wilkes	9,599	9,513	86
McCormick	9,764	9,760	4
Lincoln Area	231,150	227,873	3,277
Georgia	10,912,876	10,799,566	113,310
United States	333,287,557	331,893,745	1,393,812
McCormick	9,764	9,760	4

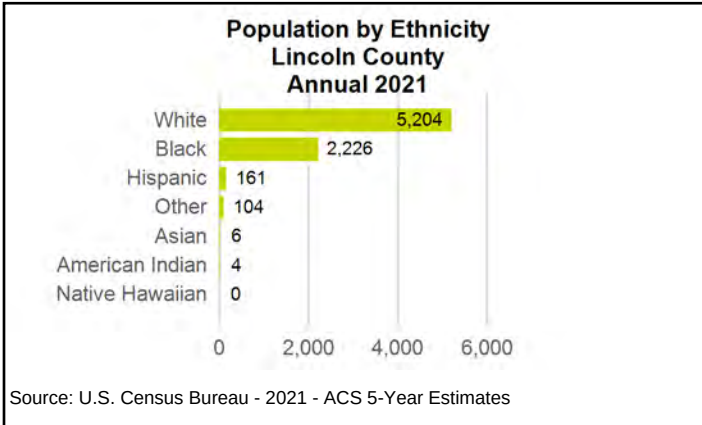
Source: Georgia Department of Labor; U.S. Census Bureau.



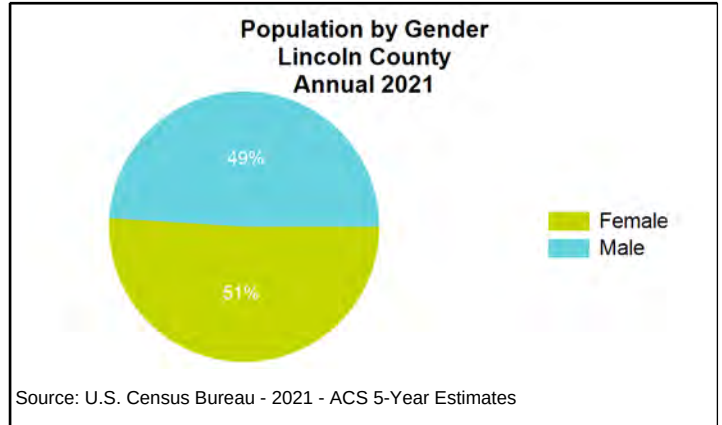
Source: Governor's Office of Planning and Budget



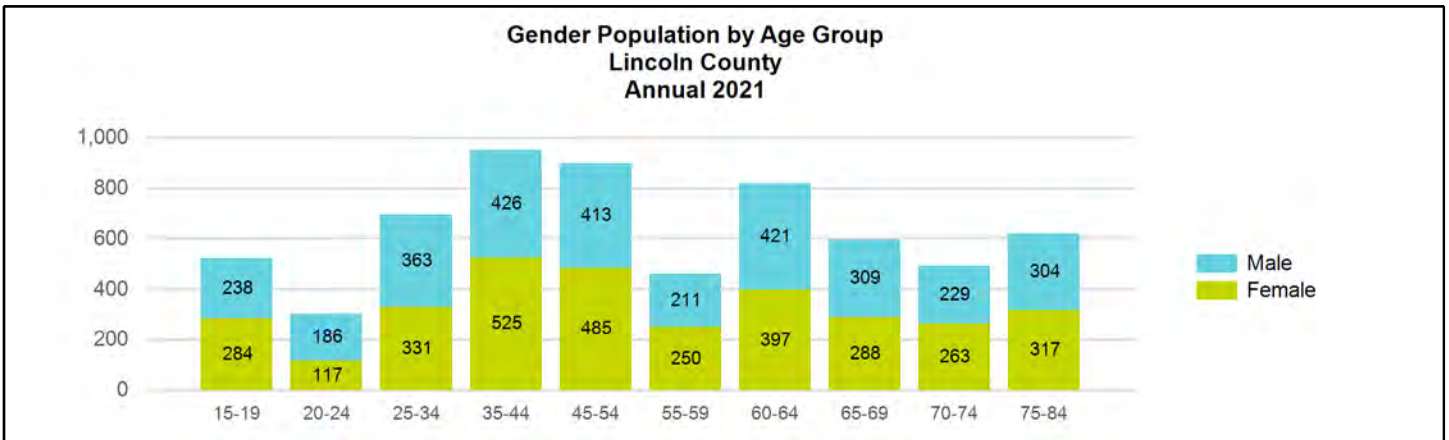
Source: Governor's Office of Planning and Budget



Source: U.S. Census Bureau - 2021 - ACS 5-Year Estimates



Source: U.S. Census Bureau - 2021 - ACS 5-Year Estimates



Industry Mix - 4th Quarter of 2023

INDUSTRY	Lincoln				Lincoln Area			
	NUMBER OF FIRMS	EMPLOYMENT		WEEKLY WAGE	NUMBER OF FIRMS	EMPLOYMENT		WEEKLY WAGE
		NUMBER	PERCENT			NUMBER	PERCENT	
Goods-Producing	41	422	29.7	1,121	782	12,070	21.3	1,394
Agriculture, Forestry, Fishing and Hunting	11	104	7.3	1,159	49	494	0.9	1,345
Mining, Quarrying, and Oil and Gas Extraction	0	0	0.0	0	15	261	0.5	1,322
Construction	24	238	16.8	1,219	500	4,131	7.3	1,348
Manufacturing	6	80	5.6	772	218	7,184	12.7	1,426
Beverage and Tobacco Product	2	*	*	*	3	51	0.1	450
Nonmetallic Mineral Product	1	*	*	*	68	862	1.5	1,003
Fabricated Metal Product	1	*	*	*	27	791	1.4	1,087
Machinery	1	*	*	*	12	819	1.4	2,627
Transportation Equipment	1	*	*	*	12	1,609	2.8	1,373
Leather and Allied Product	0	0	0.0	0	1	*	*	*
Primary Metal	0	0	0.0	0	1	*	*	*
Electrical Equipment, Appliance, and Component	0	0	0.0	0	2	*	*	*
Textile Product Mills	0	0	0.0	0	3	*	*	*
Textile Mills	0	0	0.0	0	3	*	*	*
Paper	0	0	0.0	0	3	*	*	*
Computer and Electronic Product	0	0	0.0	0	3	7	0.0	1,241
Apparel	0	0	0.0	0	5	315	0.6	3,808
Plastics and Rubber Products	0	0	0.0	0	6	375	0.7	1,194
Printing and Related Support Activities	0	0	0.0	0	9	42	0.1	700
Chemical	0	0	0.0	0	10	29	0.1	1,030
Miscellaneous	0	0	0.0	0	11	113	0.2	1,128
Food	0	0	0.0	0	11	653	1.2	765
Furniture and Related Product	0	0	0.0	0	13	137	0.2	944
Wood Product	0	0	0.0	0	15	439	0.8	1,180
Service-Providing	116	578	40.7	775	3,365	33,764	59.6	835
Utilities	1	*	*	*	7	88	0.2	1,950
Wholesale Trade	6	37	2.6	1,226	180	1,411	2.5	1,332
Retail Trade	28	167	11.8	594	581	8,814	15.6	727
Transportation and Warehousing	11	18	1.3	1,054	114	973	1.7	954
Information	1	*	*	*	45	366	0.6	1,391
Finance and Insurance	6	52	3.7	2,120	224	1,073	1.9	1,387
Real Estate and Rental and Leasing	8	28	2.0	721	166	739	1.3	1,100
Professional, Scientific, and Technical Services	11	39	2.7	968	396	1,736	3.1	1,420
Management of Companies and Enterprises	0	0	0.0	0	16	183	0.3	940
Administrative and Support and Waste Management and Remediation Services	8	38	2.7	633	294	3,100	5.5	756
Educational Services	0	0	0.0	0	57	833	1.5	592
Health Care and Social Assistance	6	18	1.3	764	506	5,788	10.2	1,061
Arts, Entertainment, and Recreation	5	21	1.5	479	57	455	0.8	677
Accommodation and Food Services	13	95	6.7	357	391	6,451	11.4	397
Other Services (except Public Administration)	12	54	3.8	552	331	1,754	3.1	865
Unclassified - industry not assigned	26	21	1.5	717	626	308	0.5	1,261
Total - Private Sector	183	1,021	71.9	917	4,773	46,142	81.4	984
Total - Government	14	399	28.1	725	245	10,515	18.6	981
Federal Government	1	12	0.8	1,213	24	793	1.4	1,760
State Government	6	33	2.3	589	70	954	1.7	936
Local Government	7	354	24.9	721	151	8,768	15.5	915
ALL INDUSTRIES	197	1,420	100.0	863	5,018	56,661	100.0	984
ALL INDUSTRIES - Georgia					391,789	4,855,930		1,331

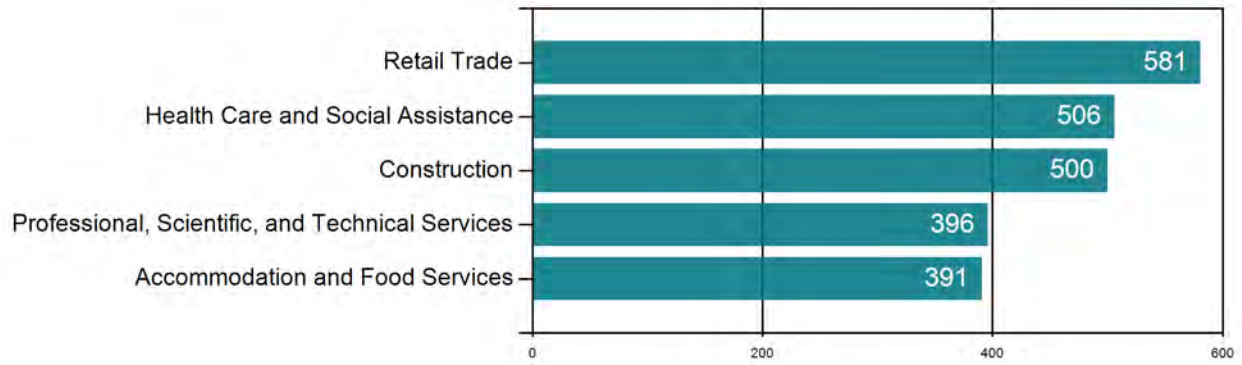
Note: *Denotes confidential data relating to individual employers and cannot be released. These data use the North American Industrial Classification System (NAICS) categories. Average weekly wage is derived by dividing gross payroll dollars paid to all employees - both hourly and salaried - by the average number of employees who had earnings; average earnings are then divided by the number of weeks in a reporting period to obtain weekly figures. Figures in other columns may not sum accurately due to rounding. All figures are 4th Quarter of 2023.

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

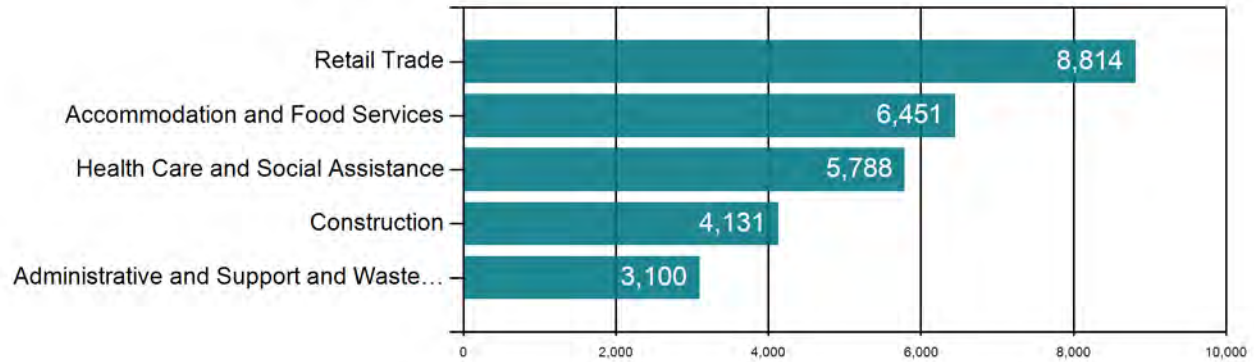
Top Industries - 4th Quarter of 2023

Lincoln Area

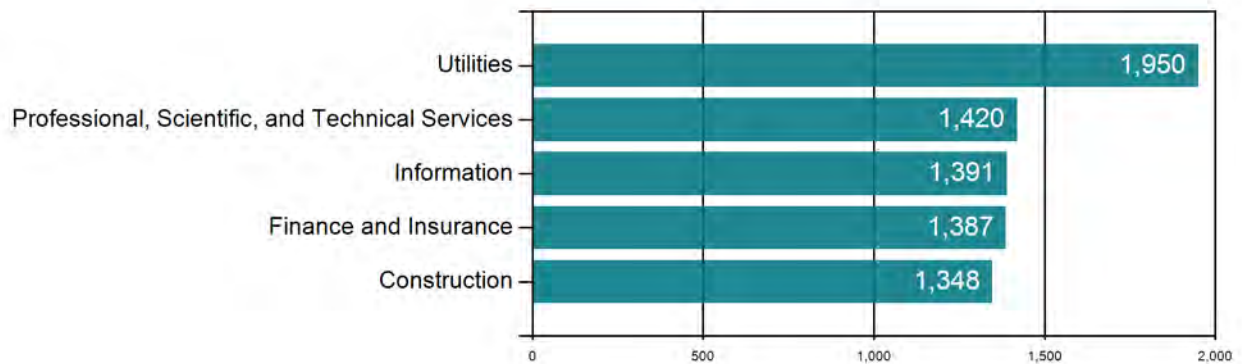
Top Industries by Firms



Top Industries by Employment



Top Industries by Weekly Wages



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

Technical College Certificate Graduates - 2023

PROGRAMS	TOTAL GRADUATES			PERCENT CHANGE	
	2021	2022	2023	2021-2022	2022-2023
Electrician	269	170	271	-36.8	59.4
Cosmetology/Cosmetologist, General	106	128	178	20.8	39.1
Automobile/Automotive Mechanics Technology/Technician	174	196	150	12.6	-23.5
Welding Technology/Welder	159	95	130	-40.3	36.8
Child Care Provider/Assistant	83	105	127	26.5	21.0
Computer and Information Systems Security/Information Assurance	98	80	114	-18.4	42.5
Truck and Bus Driver/Commercial Vehicle Operator and Instructor	48	48	106	0.0	120.8
Computer Installation and Repair Technology/Technician	171	99	94	-42.1	-5.1
Autobody/Collision and Repair Technology/Technician	29	69	80	137.9	15.9
Accounting Technology/Technician and Bookkeeping	48	55	57	14.6	3.6

Source: Technical College System of Georgia

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

Technical College Diploma Graduates - 2023

PROGRAMS	TOTAL GRADUATES			PERCENT CHANGE	
	2021	2022	2023	2021-2022	2022-2023
Cosmetology/Cosmetologist, General	57	59	73	3.5	23.7
Welding Technology/Welder	44	59	44	34.1	-25.4
Electrician	50	40	38	-20.0	-5.0
Licensed Practical/Vocational Nurse Training	29	40	35	37.9	-12.5
Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/	21	27	33	28.6	22.2
Medical/Clinical Assistant	67	37	27	-44.8	-27.0
Early Childhood Education and Teaching	54	37	26	-31.5	-29.7
Automobile/Automotive Mechanics Technology/Technician	44	27	25	-38.6	-7.4
Business Administration and Management, General	11	6	17	-45.5	183.3
Autobody/Collision and Repair Technology/Technician	3	3	14	0.0	366.7

Source: Technical College System of Georgia

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

Technical College Degree Graduates - 2023

PROGRAMS	TOTAL GRADUATES			PERCENT CHANGE	
	2021	2022	2023	2021-2022	2022-2023
Registered Nursing/Registered Nurse	78	51	69	-34.6	35.3
Business Administration and Management, General	47	33	46	-29.8	39.4
Accounting Technology/Technician and Bookkeeping	39	34	28	-12.8	-17.6
Early Childhood Education and Teaching	55	40	25	-27.3	-37.5
Radiologic Technology/Science - Radiographer	24	21	23	-12.5	9.5
Criminal Justice/Safety Studies	26	28	19	7.7	-32.1
Occupational Therapist Assistant	14	15	18	7.1	20.0
Nuclear Engineering Technology/Technician	9	7	16	-22.2	128.6
Dental Hygiene/Hygienist	15	13	15	-13.3	15.4
Marketing/Marketing Management, General	10	8	15	-20.0	87.5

Source: Technical College System of Georgia

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

Top Ten Largest Employers - 2023*

Lincoln County

Adrenaline Powerboats International
Augusta Chiller Service, Inc.
Farmers State Bank
J & T Service Center, Inc.
Mcwhorter Land And Timber
Papa's Pizza To Go
R L Wiley Electrical Contractors
Reed Ice, Inc.
Scott Bridge Co, Inc.
Trinity Lawn And Landscaping, Inc.

*Note: Represents employment covered by unemployment insurance excluding all government agencies except correctional institutions, state and local hospitals, state colleges and universities. Data shown for the Fourth Quarter of 2023. Employers are listed alphabetically by area, not by the number of employees.

Source: Georgia Department of Labor

Lincoln Area

Advance Stores Co, Inc.
Club Car, LLC
GIW Industries, Inc.
John Deere Commercial
Lowe's Home Centers, Inc.
Pilgrim's Pride Corporation
Publix Super Markets, Inc.
Shaw Industries Group, Inc.
The York Group
Walmart

COUNTY

McDuffie
Columbia
Columbia
Columbia
Columbia
Elbert
Columbia
McDuffie
Elbert
Columbia

Education of the Labor Force

Lincoln Area

PERCENT DISTRIBUTION BY AGE

	PERCENT OF TOTAL	18-24	25-34	35-44	45-64	65+
Elementary	2.5%	0.7%	1.7%	1.2%	1.8%	6.4%
Some High School	8.2%	14.1%	8.8%	6.1%	6.7%	9.1%
High School Grad/GED	28.9%	36.2%	24.4%	26.3%	28.7%	31.7%
Some College	21.7%	34.2%	23.1%	18.7%	19.8%	19.8%
College Grad 2 Yr	10.3%	6.6%	9.6%	13.1%	11.1%	8.8%
College Grad 4 Yr	17.2%	7.9%	22.4%	20.3%	18.0%	13.6%
Post Graduate Studies	11.2%	0.2%	10.0%	14.3%	13.9%	10.5%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Totals are based on the portion of the labor force between ages 18 - 65+. Some College category represents workers with some

Source: U.S. Census Bureau - 2021: ACS 5-Year Estimates.

Georgia Department of Labor Location(s)

Career Center(s)

674 Washington Road
PO Box 489
Thomson, GA 30824

Phone: (706) 595 - 3665

Fax: (706) 595 - 7209

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

BRUCE THOMPSON - COMMISSIONER, GEORGIA DEPARTMENT OF LABOR

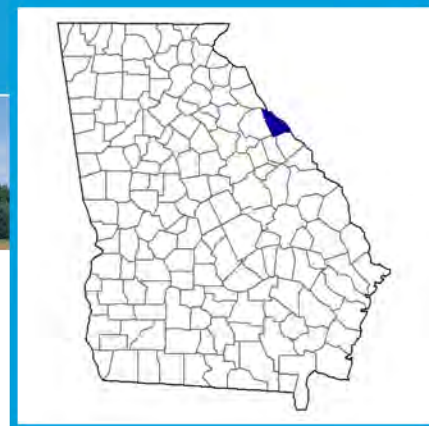
Equal Opportunity Employer/Program

Auxillary Aids and Services Available upon Request to Individuals with Disabilities

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



Lincoln County Georgia



Total and Per Farm Overview, 2022 and change since 2017

	2022	% change since 2017
Number of farms	130	+25
Land in farms (acres)	27,118	+48
Average size of farm (acres)	209	+19
Total	(\$)	
Market value of products sold	8,238,000	+96
Government payments	50,000	-72
Farm-related income	1,008,000	+118
Total farm production expenses	7,482,000	+111
Net cash farm income	1,814,000	+40
Per farm average	(\$)	
Market value of products sold	63,370	+57
Government payments ^a	8,318	-1
Farm-related income ^a	25,841	+96
Total farm production expenses	57,555	+69
Net cash farm income	13,951	+12

(Z) Percent of state agriculture sales

Share of Sales by Type (%)

Crops	10
Livestock, poultry, and products	90

Land in Farms by Use (acres)

Cropland	6,927
Pastureland	7,309
Woodland	11,086
Other	1,796

Acres irrigated: 11

(Z)% of land in farms

Land Use Practices (% of farms)

No till	12
Reduced till	8
Intensive till	3
Cover crop	1

Farms by Value of Sales

	Number	Percent of Total ^b
Less than \$2,500	52	40
\$2,500 to \$4,999	15	12
\$5,000 to \$9,999	23	18
\$10,000 to \$24,999	13	10
\$25,000 to \$49,999	14	11
\$50,000 to \$99,999	8	6
\$100,000 or more	5	4

Farms by Size

	Number	Percent of Total ^b
1 to 9 acres	5	4
10 to 49 acres	24	18
50 to 179 acres	50	38
180 to 499 acres	42	32
500 to 999 acres	2	2
1,000+ acres	7	5

Market Value of Agricultural Products Sold

	Sales (\$1,000)	Rank in State ^c	Counties Producing Item	Rank in U.S. ^c	Counties Producing Item
Total	8,238	128	159	2,764	3,078
Crops	829	142	159	2,901	3,074
Grains, oilseeds, dry beans, dry peas	(D)	136	147	2,580	2,917
Tobacco	-	-	17	-	267
Cotton and cottonseed	-	-	92	-	647
Vegetables, melons, potatoes, sweet potatoes	34	112	155	1,934	2,831
Fruits, tree nuts, berries	38	127	157	1,761	2,711
Nursery, greenhouse, floriculture, sod	(D)	120	139	(D)	2,660
Cultivated Christmas trees, short rotation woody crops	-	-	49	-	1,274
Other crops and hay	750	101	152	2,240	3,035
Livestock, poultry, and products	7,409	95	159	2,285	3,076
Poultry and eggs	(D)	91	154	(D)	3,027
Cattle and calves	2,126	60	156	2,122	3,047
Milk from cows	-	-	66	-	1,770
Hogs and pigs	(D)	98	124	1,793	2,814
Sheep, goats, wool, mohair, milk	27	80	155	2,112	2,967
Horses, ponies, mules, burros, donkeys	(D)	(D)	140	(D)	2,907
Aquaculture	-	-	41	-	1,190
Other animals and animal products	(D)	108	143	(D)	2,909

Producers ^d	272	Percent of farms that:	Top Crops in Acres ^e
Sex			
Male	167	Have internet access	85
Female	105		
Age			
<35	60	Farm organically	-
35 – 64	91		
65 and older	121		
Race			
American Indian/Alaska Native	-	Sell directly to consumers	2
Asian	-		
Black or African American	1		
Native Hawaiian/Pacific Islander	-	Hire farm labor	12
White	270		
More than one race	1		
Other characteristics			
Hispanic, Latino, Spanish origin	8	Are family farms	98
With military service	29		
New and beginning farmers	157		
			Livestock Inventory (Dec 31, 2022)
			Broilers and other meat-type chickens (D)
			Cattle and calves 5,314
			Goats 265
			Hogs and pigs (D)
			Horses and ponies 143
			Layers 293
			Pullets -
			Sheep and lambs 243
			Turkeys (D)

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

APPENDIX C

OTHER PLANNING DOCUMENTS



Hazard Risk Analyses Supplement to the Lincoln 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 Lincoln 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 Lincoln 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. Lincoln 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 Lincoln County were replaced with data derived from parcel and property assessment data obtained from Lincoln County. The county provided property assessment data was current as of December 2024 and the parcel data current as of December 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 Lincoln County is 99.6%. 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	205	208	\$18,360,000	\$71,035,000
Education	10	9	\$23,281,000	\$32,201,000
Government	20	22	\$3,396,000	\$19,293,000
Industrial	70	71	\$9,775,000	\$32,613,000
Religious	63	63	\$8,779,000	\$26,731,000
Residential	4,458	5,255	\$503,551,000	\$588,174,000
Total	4,826	5,628	\$567,142,000	\$770,047,000

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

For Lincoln 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.

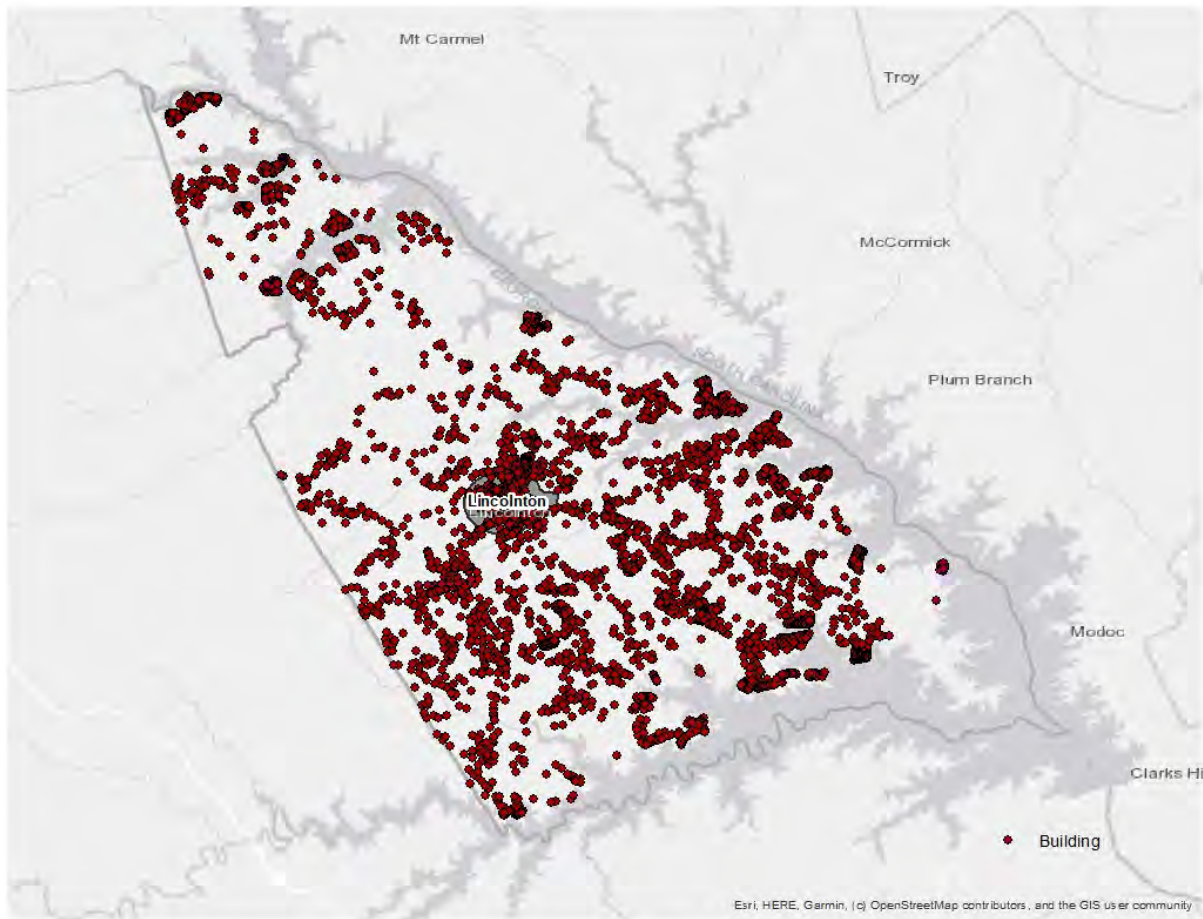


Figure 1: Lincoln County Overview

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 December 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
Lincolnton		
EOC	1	\$240,000
Care	1	\$363,000
Fire	2	\$516,000
Police	2	\$1,289,000
School	3	\$38,499,000
Total	9	\$40,907,000
Unincorporated Areas of Lincoln County		
EOC	0	\$0
Care	0	\$0
Fire	7	\$1,206,000
Police	0	\$0
School	0	\$0
Total	7	\$1,206,000

Assumptions and Exceptions

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

- The Lincoln 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 Lincoln County by creating a 20-mile buffer around the county to include storms that didn't make direct landfall in Lincoln 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 1859, Lincoln County has had 22 tropical systems within 20 miles of its county borders (Table 4).

Table 4: Tropical Systems affecting Lincoln County³

YEAR	DATE RANGE	NAME	MAX WIND(Knots)	MAX PRESSURE	MAX CAT
1859	September 15 - 18	UNNAMED	70	0	H1

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
1882	September 02 - 13	UNNAMED	110	1000	H3
1886	June 17 - 24	UNNAMED	85	0	H2
1889	September 12 - 26	UNNAMED	95	0	H2
1893	September 27 - October 05	UNNAMED	115	948	H4
1903	September 09 - 16	UNNAMED	80	988	H1
1912	June 07 - 17	UNNAMED	60	0	TS
1928	August 03 - 13	UNNAMED	90	977	H2
1933	August 31 - September 07	UNNAMED	120	948	H4
1947	October 05 - 09	UNNAMED	50	0	TS
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
1990	October 09 - 13	MARCO	55	1007	TS
1995	August 22 - 28	JERRY	35	1010	TS
2000	September 15 - 25	HELENE	60	1012	TS
2004	September 13 - 29	JEANNE	105	1010	H3
2018	October 06 - 15	MICHAEL	140	1006	H5
2020	September 11 - 18	SALLY	95	1007	H2
2021	June 17 - 23	CLAUDETTE	40	1008	E

Category Definitions:

TS – Tropical storm

TD – Tropical depression

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

E – Extra-tropical cyclone

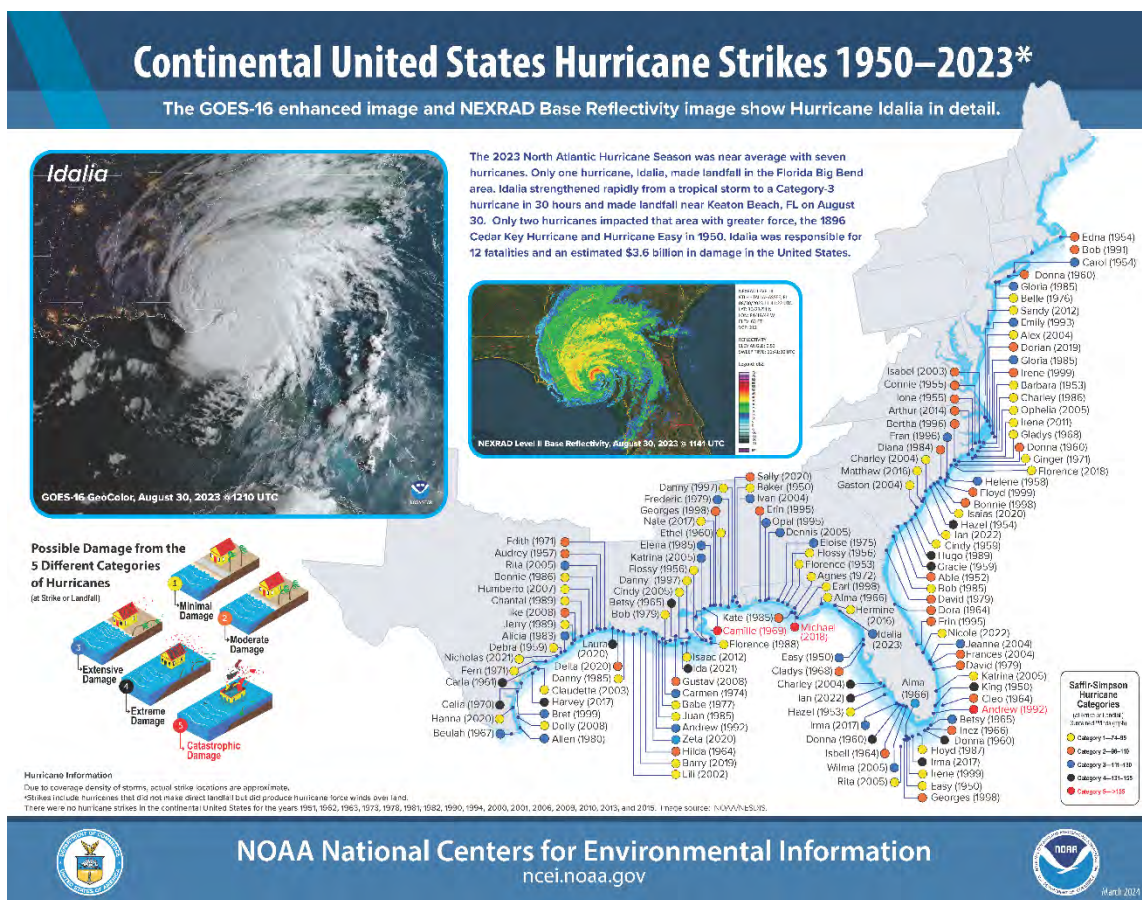


Figure 2: Continental United States Hurricane Strikes: 1950 to 2023⁴

Probabilistic Hurricane Scenario

The following probabilistic wind damage risk assessment modeled a Tropical Storm with maximum winds of 72 mph.

Wind Damage Assessment

Separate analyses were performed to determine wind and hurricane storm surge related flood losses. This section describes the wind-based losses to Lincoln County. Wind losses were determined from probabilistic models run for the Tropical Storm which equates to the 1% chance storm event. Figure 3 shows wind speeds for the modeled Tropical Storm.

⁴ Source: NOAA National Centers for Environmental Information

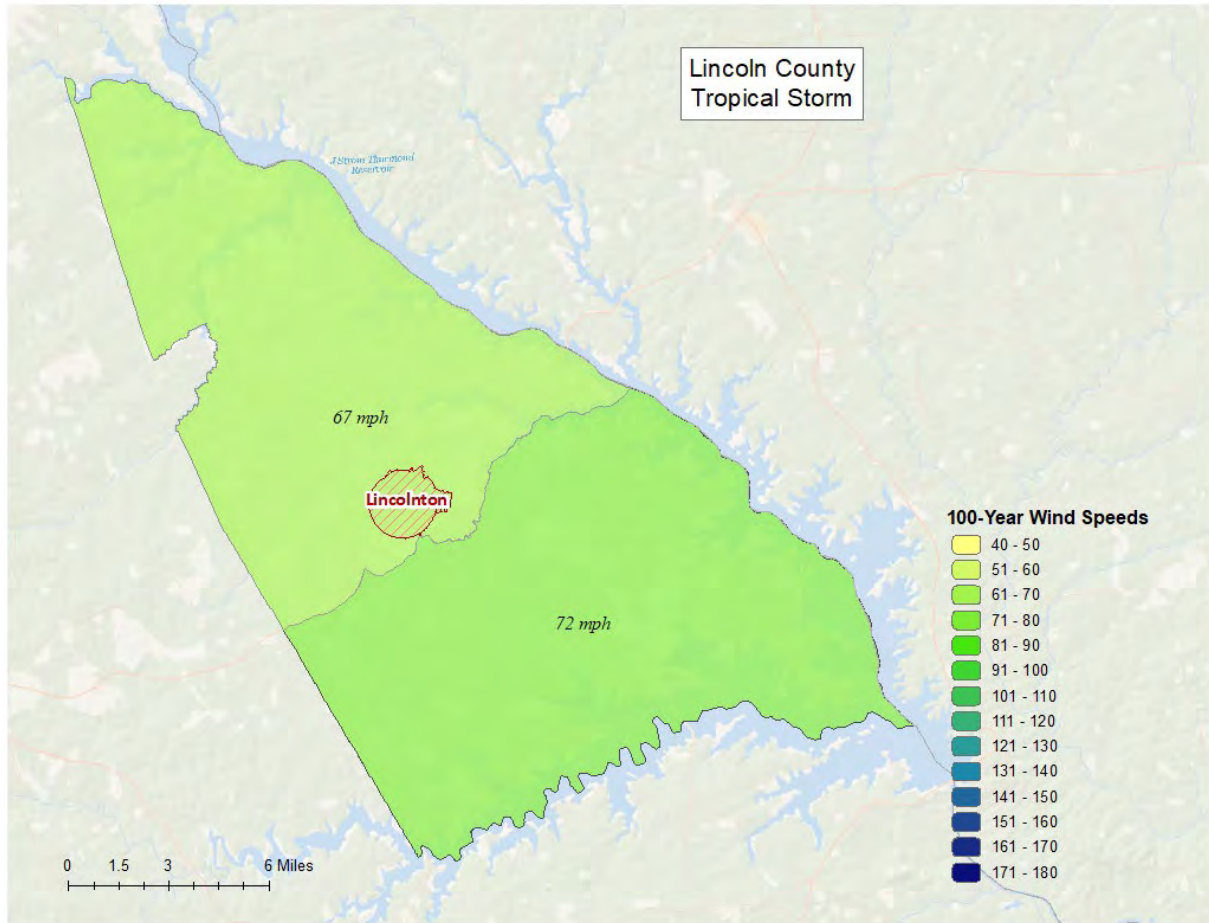


Figure 3: Wind Speeds by Storm Category

Wind-Related Building Damages

Buildings in Lincoln 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 Lincoln County for the Tropical Storm (100 Year Event). The loss ratio expresses building losses as a percentage of total building replacement cost in the county. Figure 4 illustrates the building loss ratios of the modeled Tropical Storm.

Table 5: Hurricane Wind Building Damage

Classification	Number of Buildings Damaged	Total Building Damage	Total Economic Loss ⁵	Loss Ratio
Tropical Storm	9	\$871,760	\$1,277,320	0.11%

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.

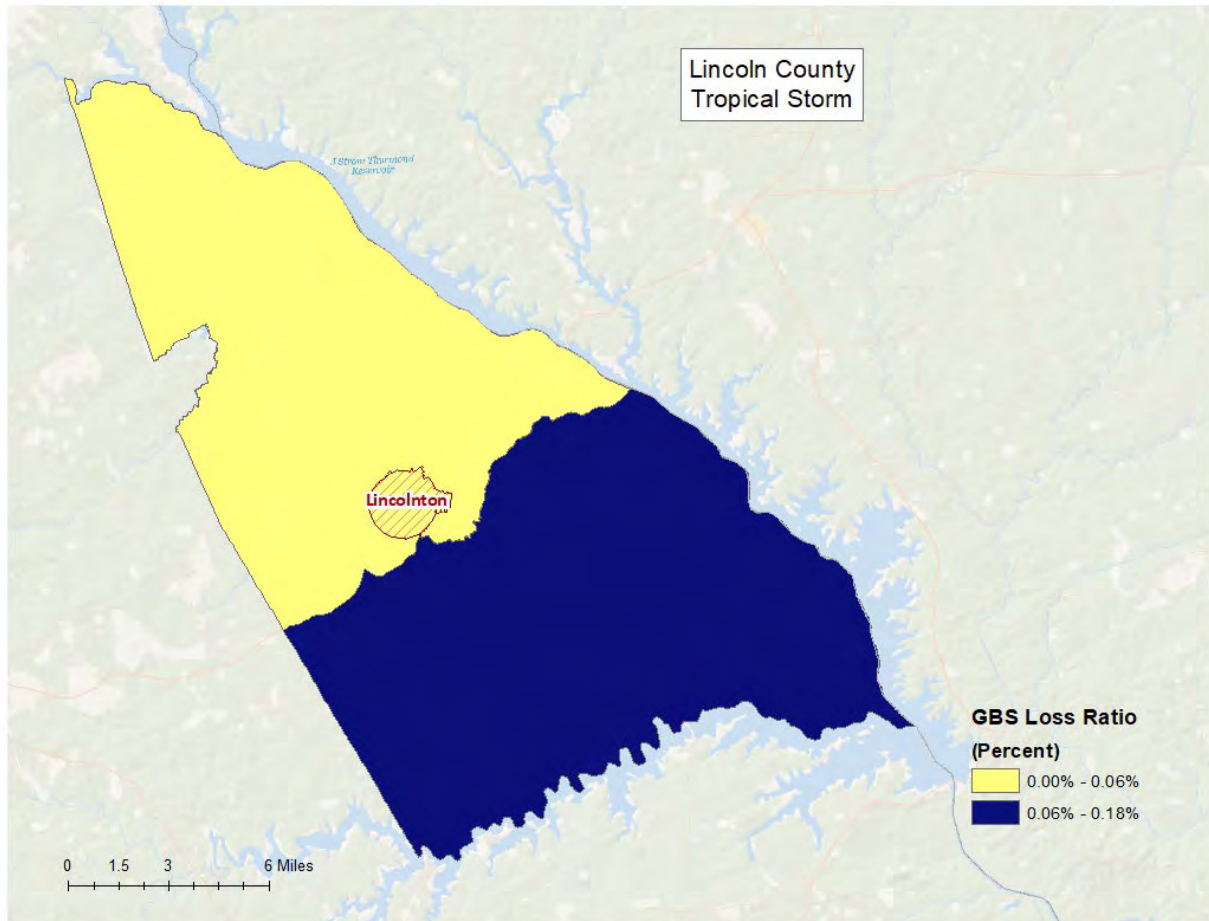


Figure 4: Hurricane Wind Building Loss Ratios

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 16 essential facilities in Lincoln County.

Classification	Number
EOCs	1
Fire Stations	9
Care Facilities	1
Police Stations	2
Schools	3

Table 6: Wind-Damaged Essential Facility Losses

Classification	Facilities At Least Moderately Damaged > 50%	Facilities Completely Damaged > 50%	Facilities with Expected Loss of Use (< 1 day)
Tropical Storm	0	0	16

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 Lincoln County is a Tropical Storm, the resulting damage is not enough to displace Households or require temporary shelters as shown in the results listed in Table 7.

Table 7: Displaced Households and People

Classification	# of Displaced Households	# of People Needing Short-Term Shelter
Tropical Storm	0	0

Debris Generated from Hurricane Wind

Hazus-MH estimates the amount of debris that will be generated by high velocity hurricane winds and quantifies it into three broad categories to determine the material handling equipment needed:

- Reinforced Concrete and Steel Debris
- Brick and Wood and Other Building Debris
- Tree Debris

Different material handling equipment is required for each category of debris. The estimates of debris for this scenario are listed in Table 8. The amount of hurricane wind related tree debris that is estimated to require pick up at the public's expense is listed in the eligible tree debris column.

Table 8: Wind-Related Debris Weight (Tons)

Classification	Brick, Wood, and Other	Reinforced Concrete and Steel	Eligible Tree Debris	Other Tree Debris	Total
Tropical Storm	37	0	939	16,031	17,007

Figure 5 shows the distribution of all wind related debris resulting from a Tropical Storm. Each dot represents 20 tons of debris within the census tract in which it is located. The dots are randomly distributed within each census tract and therefore do not represent the specific location of debris sites.

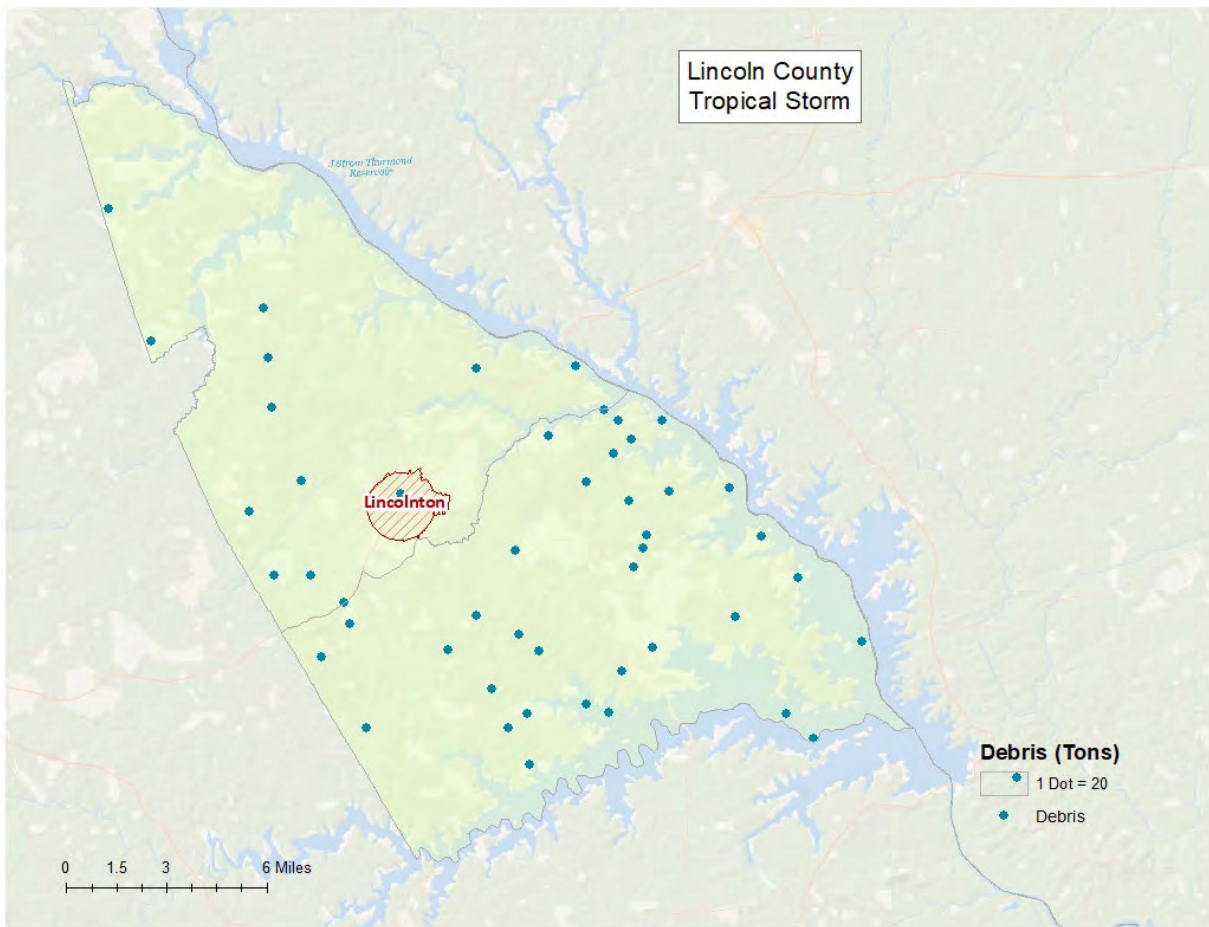


Figure 5: Wind-Related Debris Weight (Tons)

Flood Risk Assessment

Hazard Definition

Flooding is a significant natural hazard throughout the United States. The type, magnitude, and severity of flooding are functions of the amount and distribution of precipitation over a given area, the rate at which precipitation infiltrates the ground, the geometry and hydrology of the catchment, and flow dynamics and conditions in and along the river channel. Floods can be classified as one of three types: upstream floods, downstream floods, or coastal floods.

Upstream floods, also called flash floods, occur in the upper parts of drainage basins and are generally characterized by periods of intense rainfall over a short duration. These floods arise with very little warning and often result in locally intense damage, and sometimes loss of life, due to the high energy of the flowing water. Flood waters can snap trees, topple buildings, and easily move large boulders or other structures. Six inches of rushing water can upend a person; another 18 inches might carry off a car. Generally, upstream floods cause damage over relatively localized areas, but they can be quite severe in the local areas in which they occur. Urban flooding is a type of upstream flood. Urban flooding involves the overflow of storm drain systems and can be the result of inadequate drainage combined with heavy rainfall or rapid snowmelt. Upstream or flash floods can occur at any time of the year in Georgia, but they are most common in the spring and summer months.

Downstream floods, also called riverine floods, refer to floods on large rivers at locations with large upstream catchments. Downstream floods are typically associated with precipitation events that are of relatively long duration and occur over large areas. Flooding on small tributary streams may be limited, but the contribution of increased runoff may result in a large flood downstream. The lag time between precipitation and time of the flood peak is much longer for downstream floods than for upstream floods, generally providing ample warning for people to move to safe locations and, to some extent, secure some property against damage.

Coastal floods occurring on the Atlantic and Gulf coasts may be related to hurricanes or other combined offshore, nearshore, and shoreline processes. The effects of these complex interrelationships vary significantly across coastal settings, leading to challenges in the determination of the base (1-percent-annual-chance) flood for hazard mapping purposes. Land area covered by floodwaters of the base flood is identified as a Special Flood Hazard Area (SFHA).

The 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 Lincoln County flood risk assessment analyzed at risk structures in the SFHA.

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 December 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.

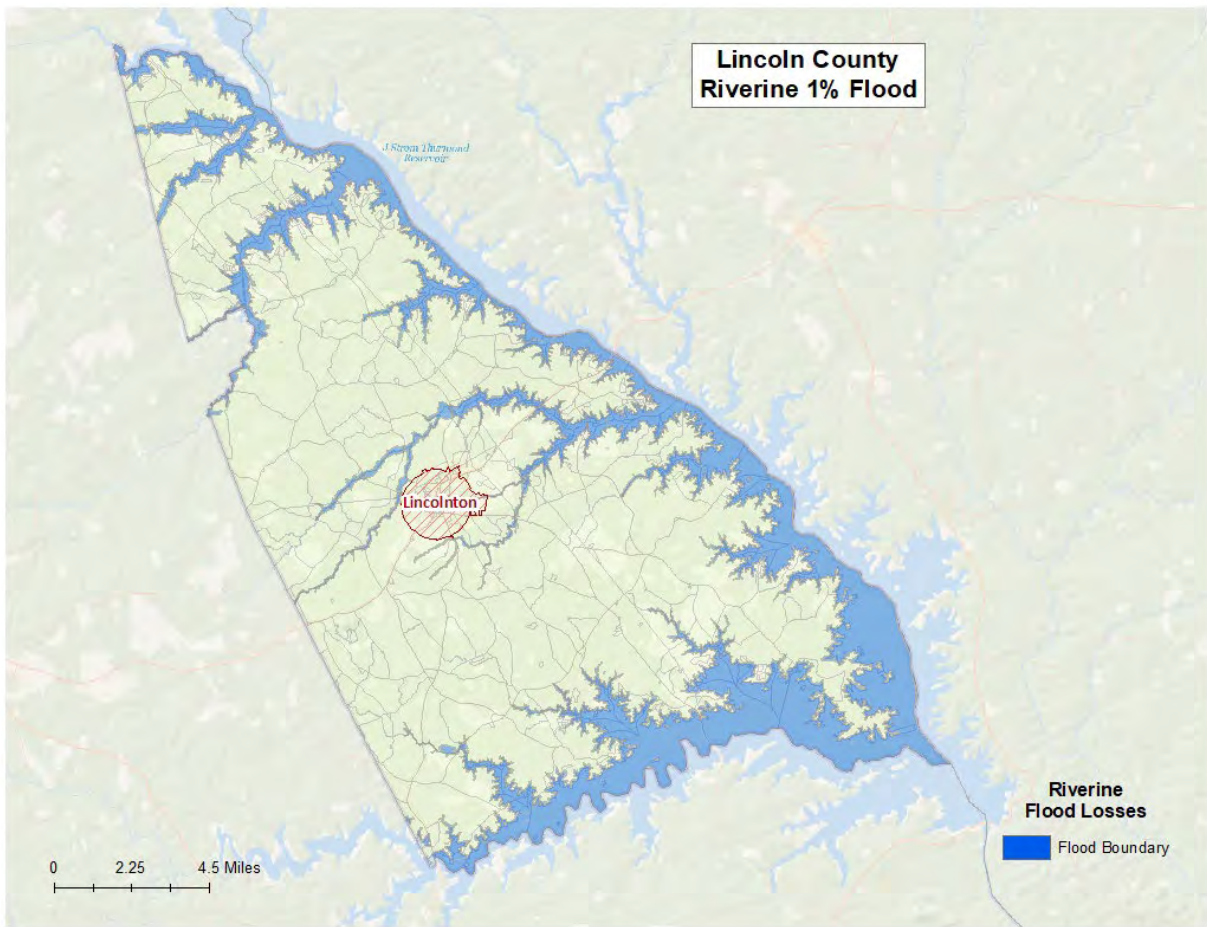


Figure 6: Riverine 1% Flood Inundation

Riverine 1% Flood Building Damages

Buildings in Lincoln 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 Lincoln 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: Lincoln 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
Unincorporated					
Residential	4,622	9	\$490,792,796	\$156,342	0.03%
County Total					
	4,622	9	\$490,792,796	\$156,342	

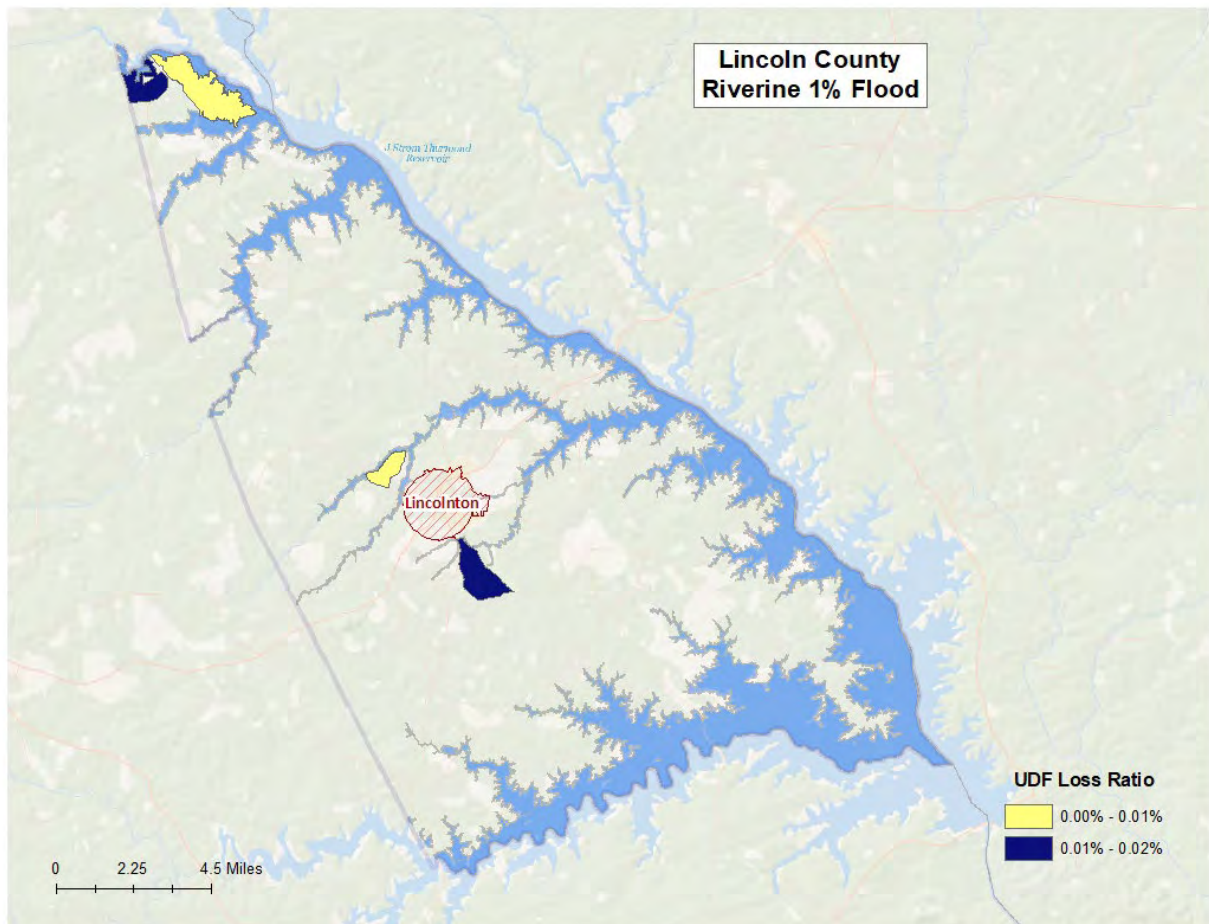


Figure 7: Lincoln County Potential Loss Ratios of Total Building Exposure to Losses Sustained to Buildings from the 1% Riverine Flood by 2010 Census Block

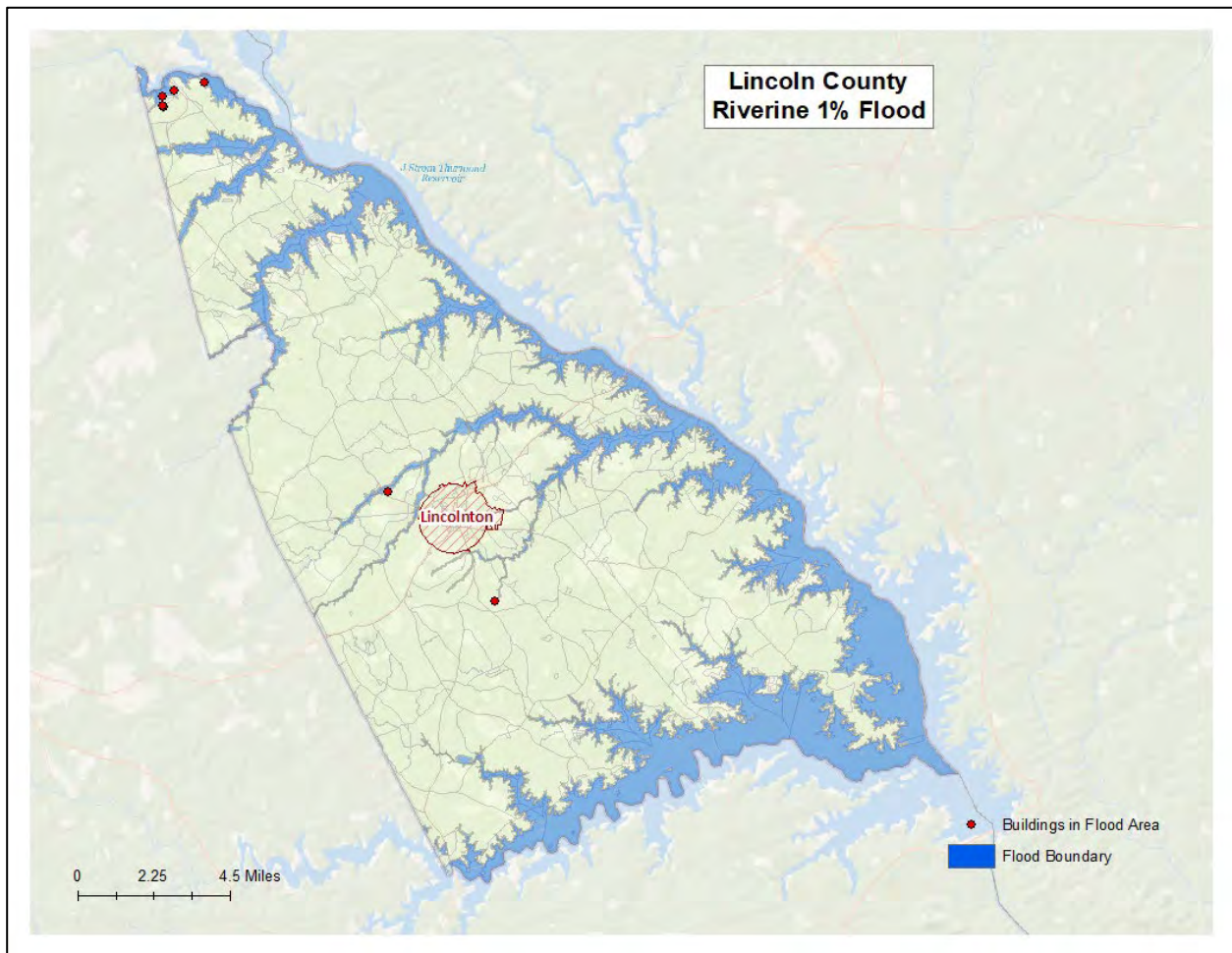


Figure 8: Lincoln County Damaged Buildings in Riverine Floodplain (1% Flood)

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 Lincoln 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 99 households might be displaced due to the flood. Displacement includes households evacuated within or very near to the inundated area. Displaced households represent 298 individuals, of which 49 may require short term publicly provided shelter. The results are mapped in Figure 9.

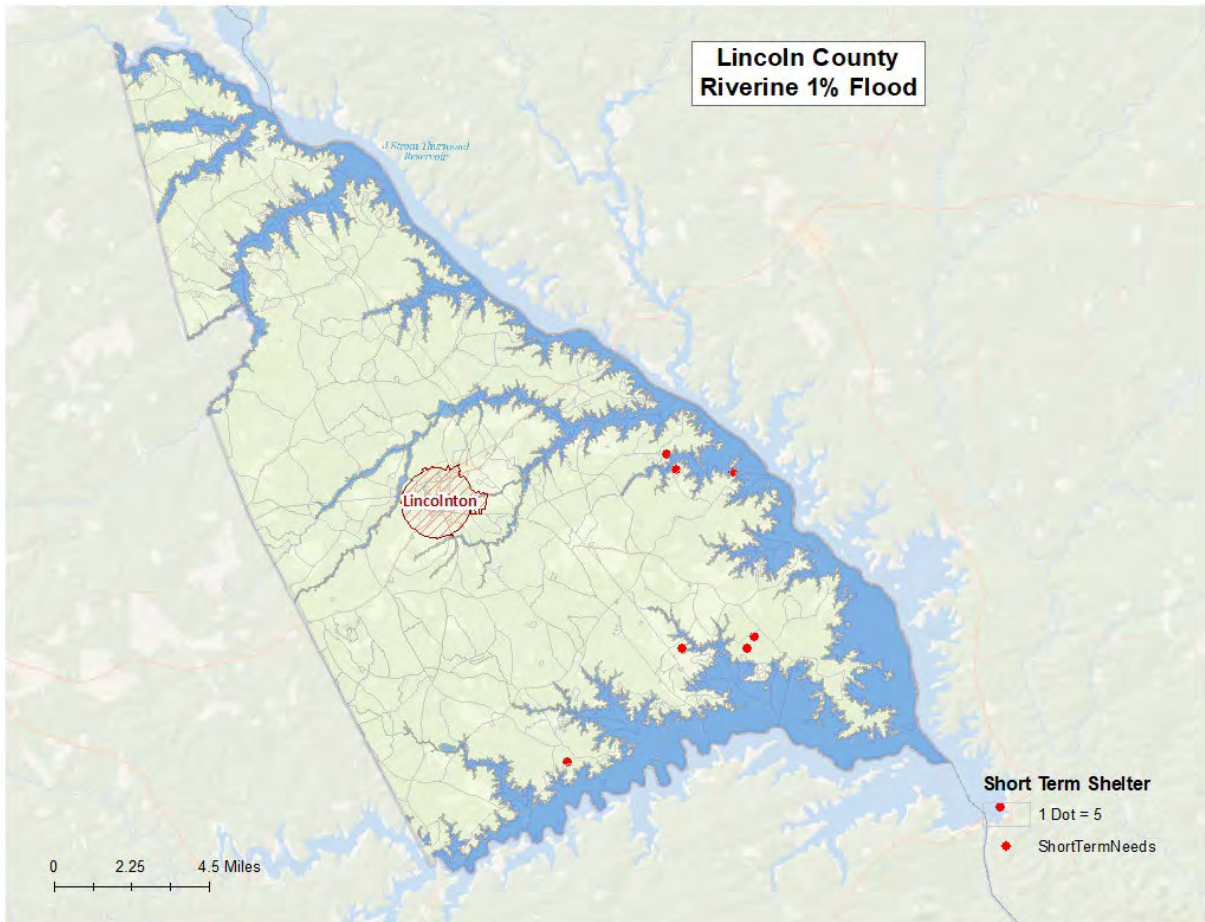


Figure 9: Riverine 1% Estimated Flood Shelter Requirements

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 4,971 tons of debris might be generated: 1) Finishes- 1,858 tons; 2) Structural – 1,296 tons; and 3) Foundations- 1,817 tons. The results are mapped in Figure 10.

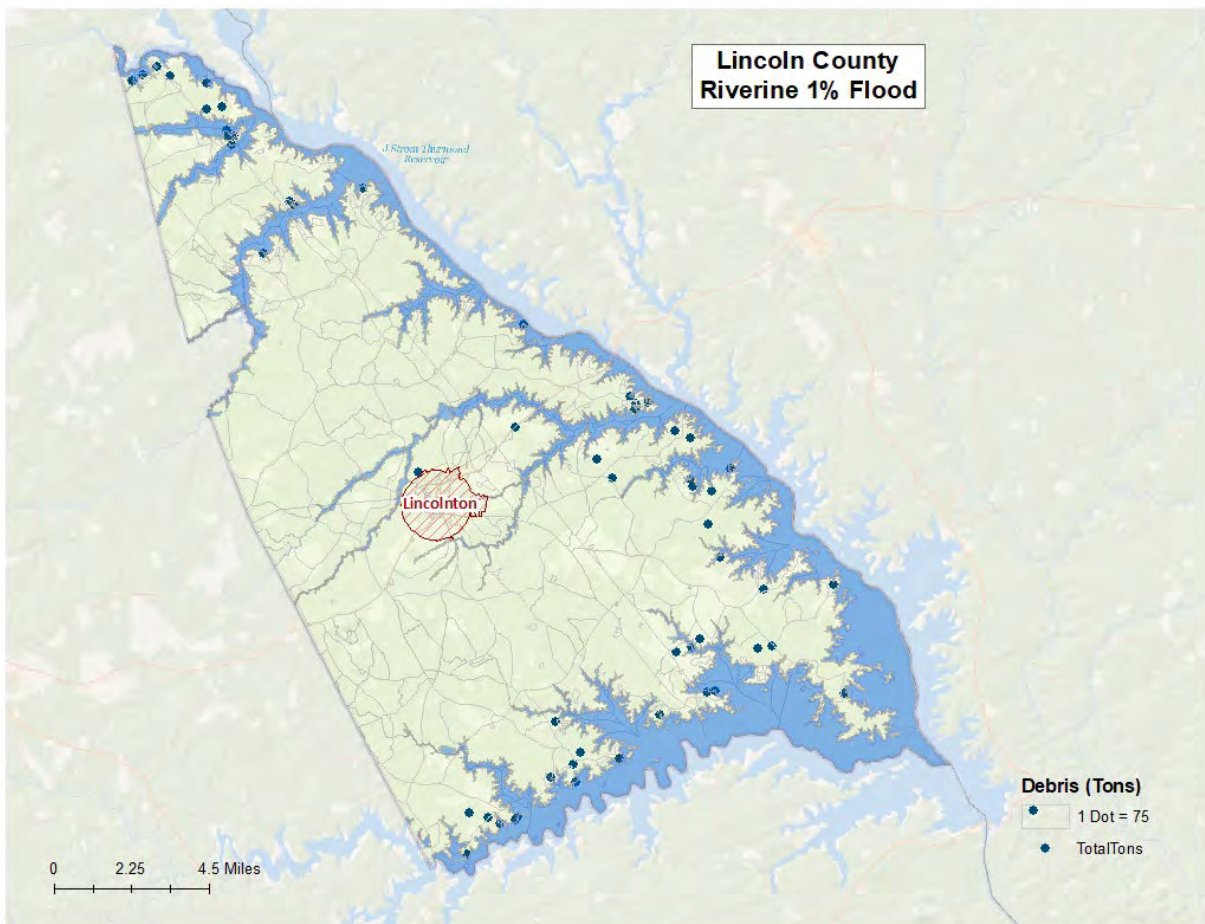


Figure 10: Riverine 1% Flood Debris Weight (Tons)

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 <i>Gale</i>	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 <i>Moderate</i>	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 <i>Significant</i>	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 <i>Severe</i>	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 <i>Devastating</i>	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 <i>Incredible</i>	> 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 Lincolnton. 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.

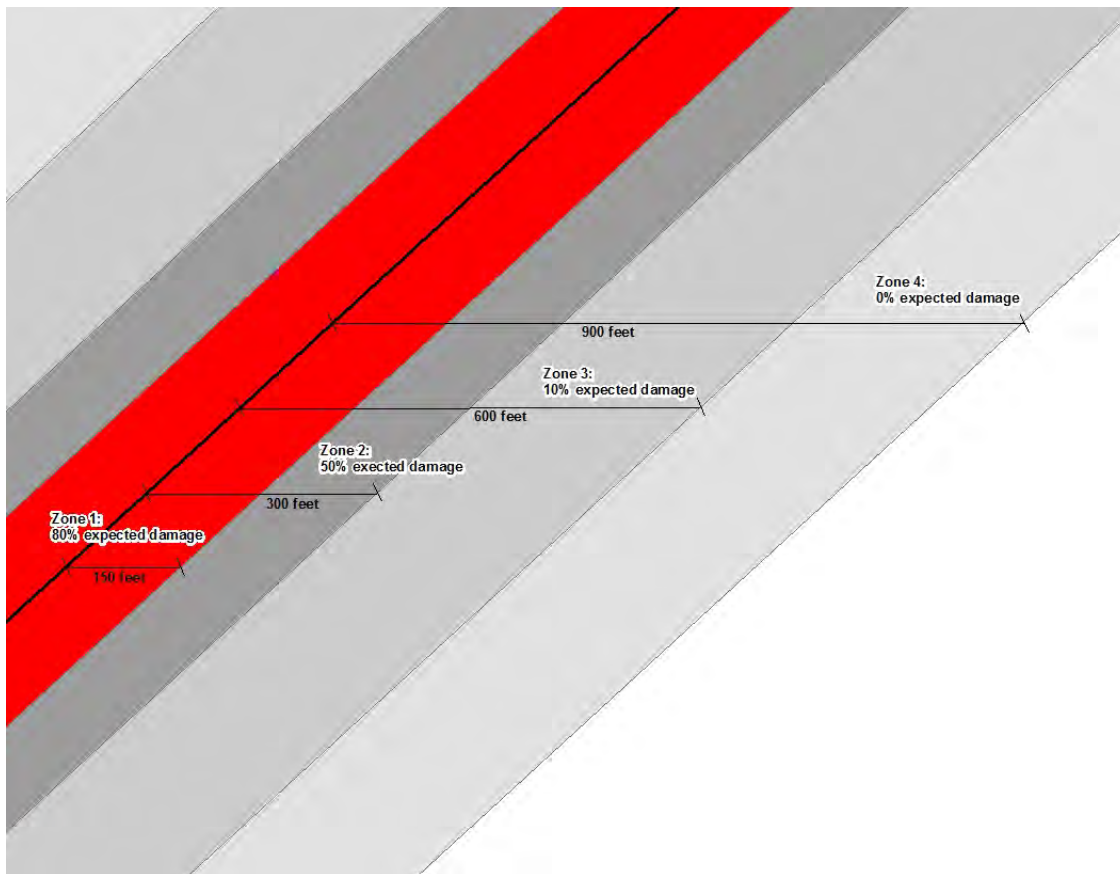


Figure 11: EF Scale Tornado Zones

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%

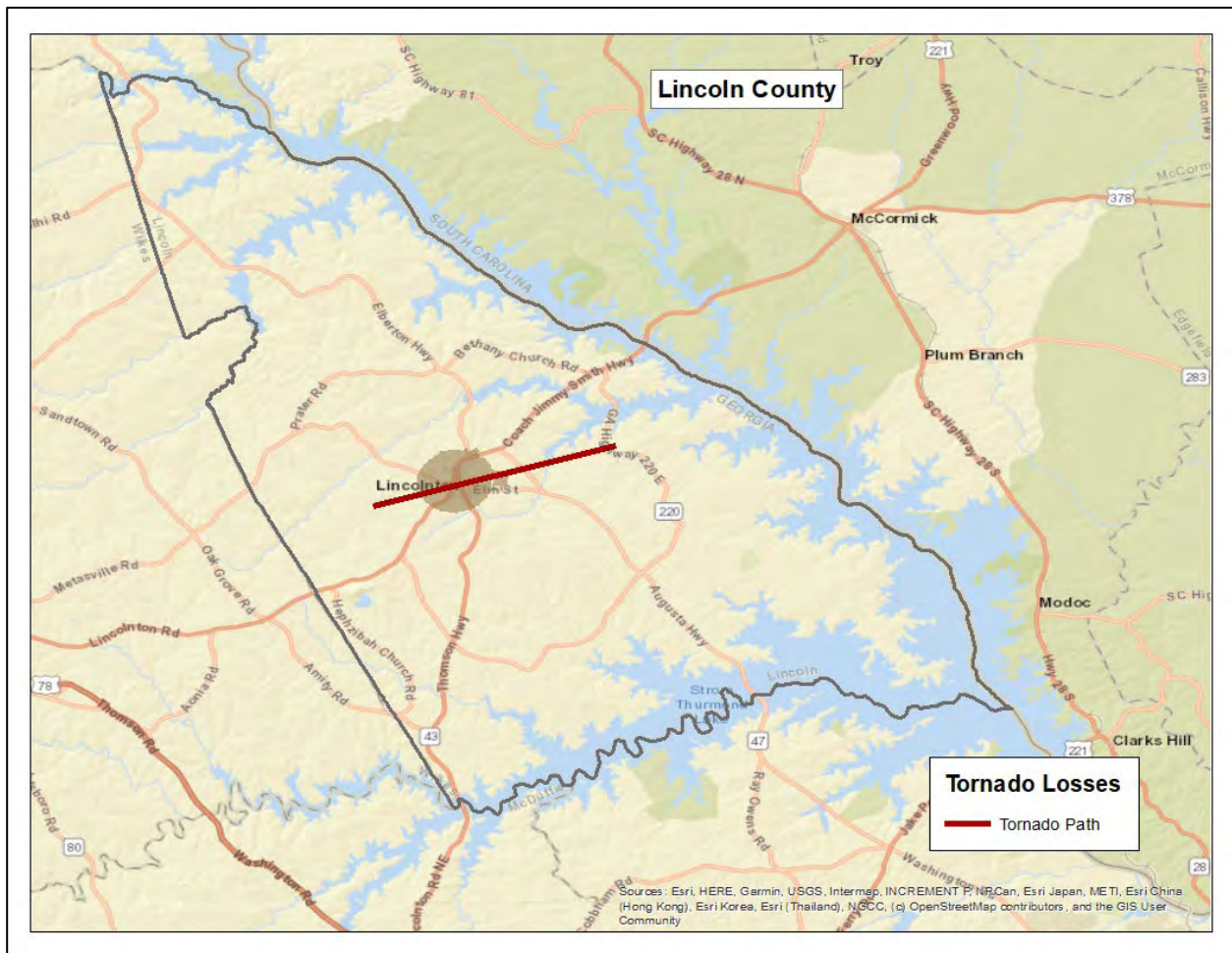


Figure 12: Hypothetical EF3 Tornado Path in Lincoln County

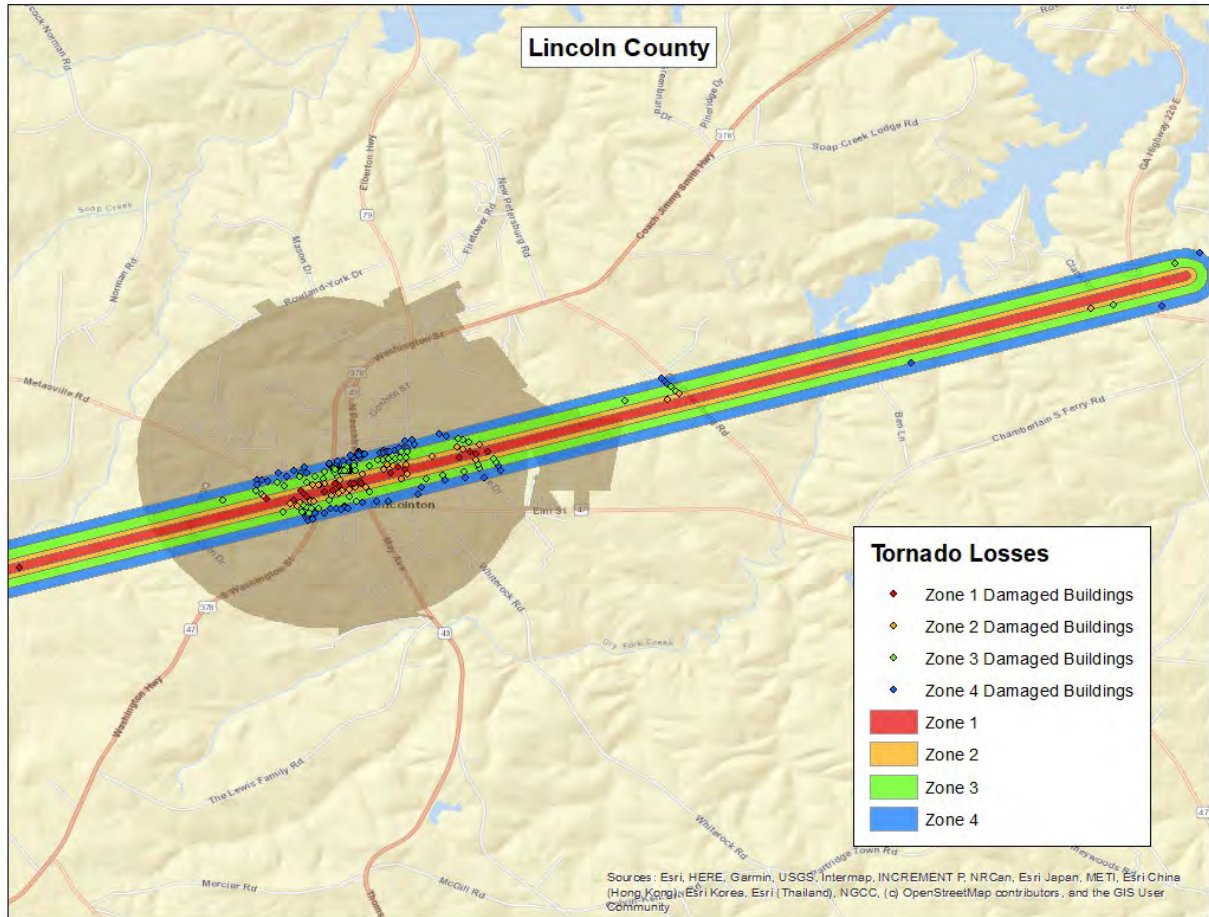


Figure 13: Modeled EF3 Tornado Damage Buffers in Lincoln County

EF3 Tornado Building Damages

The analysis estimated that approximately 249 buildings could be damaged, with estimated building losses of \$14 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 Lincoln 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	157	\$5,713,666
Commercial	65	\$2,031,256
Industrial	17	\$106,411
Religious	2	\$249,185
Education	4	\$6,056,937
Government	4	\$184,125
Total	249	\$14,341,580

EF3 Tornado Essential Facility Damage

There were four essential facilities located in the tornado path – one school, one emergency operations center, one police station, and one fire station. Table 14 outlines the specific facility and the amount of damage under the scenario.

Table 14: Estimated Essential Facilities Damaged

Facility	Amount of Damage
Lincoln County Middle School	Minor Damage
Lincoln Co. Office of Emergency Services	Minor Damage
Lincolnton Police Department	Minor Damage
Lincoln County Public Safety - 911	Minor Damage

According to the Georgia Department of Education, Lincoln County Middle School’s enrollment was approximately 283 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.

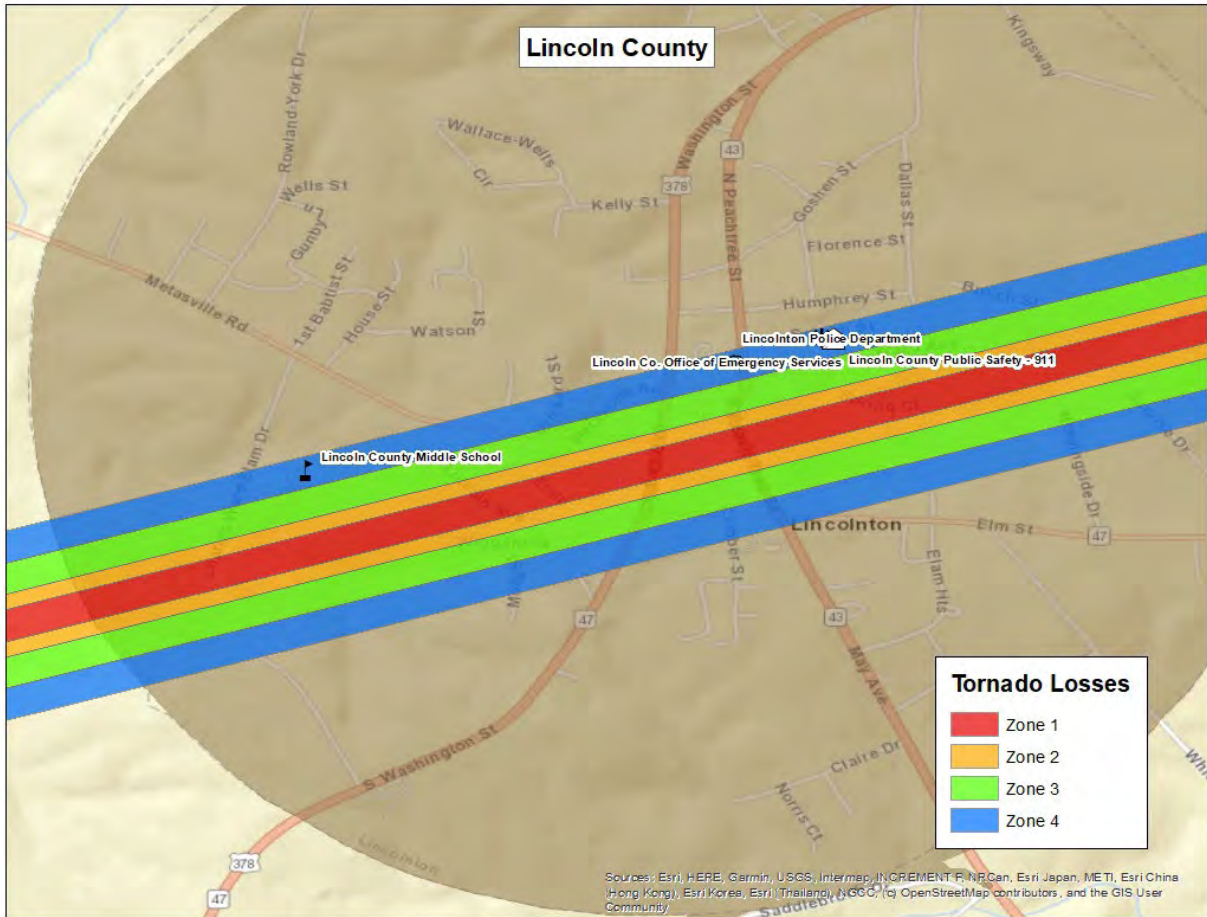


Figure 14: Modeled Essential Facility Damage in Lincoln County

Exceptions Report

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

Updates to the Critical Facility data used in GMIS were provided by Lincoln County in December 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 Lincoln County.

Table 15: Essential Facility Updates

Site Class	Feature Class	Default Replacement Cost	Default Count	Updated Replacement Cost	Updated Count
EF	Care	\$303,000	1	\$363,000	1
EF	EOC	\$200,000	1	\$240,000	1
EF	Fire	\$1,042,000	5	\$1,722,000	9
EF	Police	\$663,000	3	\$1,289,000	2
EF	School	\$37,229,000	3	\$38,499,000	3

County Inventory Changes

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

General Building Stock Updates

The parcel boundaries and assessor records were obtained from Lincoln 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 Lincoln County was 99.6%.

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 Lincoln County records.

Table 16: Building Inventory Default Adjustment Rates

Type of Adjustment	Building Count	Percentage
Area Unknown	764	14%
Construction Unknown	1,136	20%
Condition Unknown	424	8%
Foundation Unknown	1,140	20%
Year Built Unknown	847	15%
Total Buildings	5,628	15%

Approximately 15% 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 Lincoln 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	5,628	\$770,060,754
Riverine UDF	Structures Inside 1% Annual Chance Riverine Flood Area	10	\$654,430

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



Lincoln County



Report was generated using
www.southernwildfirerisk.com

Report version: 5.0

Report generated: 1/8/2025

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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](#)

[Wildfire Exposure Score](#)

[Damage Potential](#)

Burn Probability

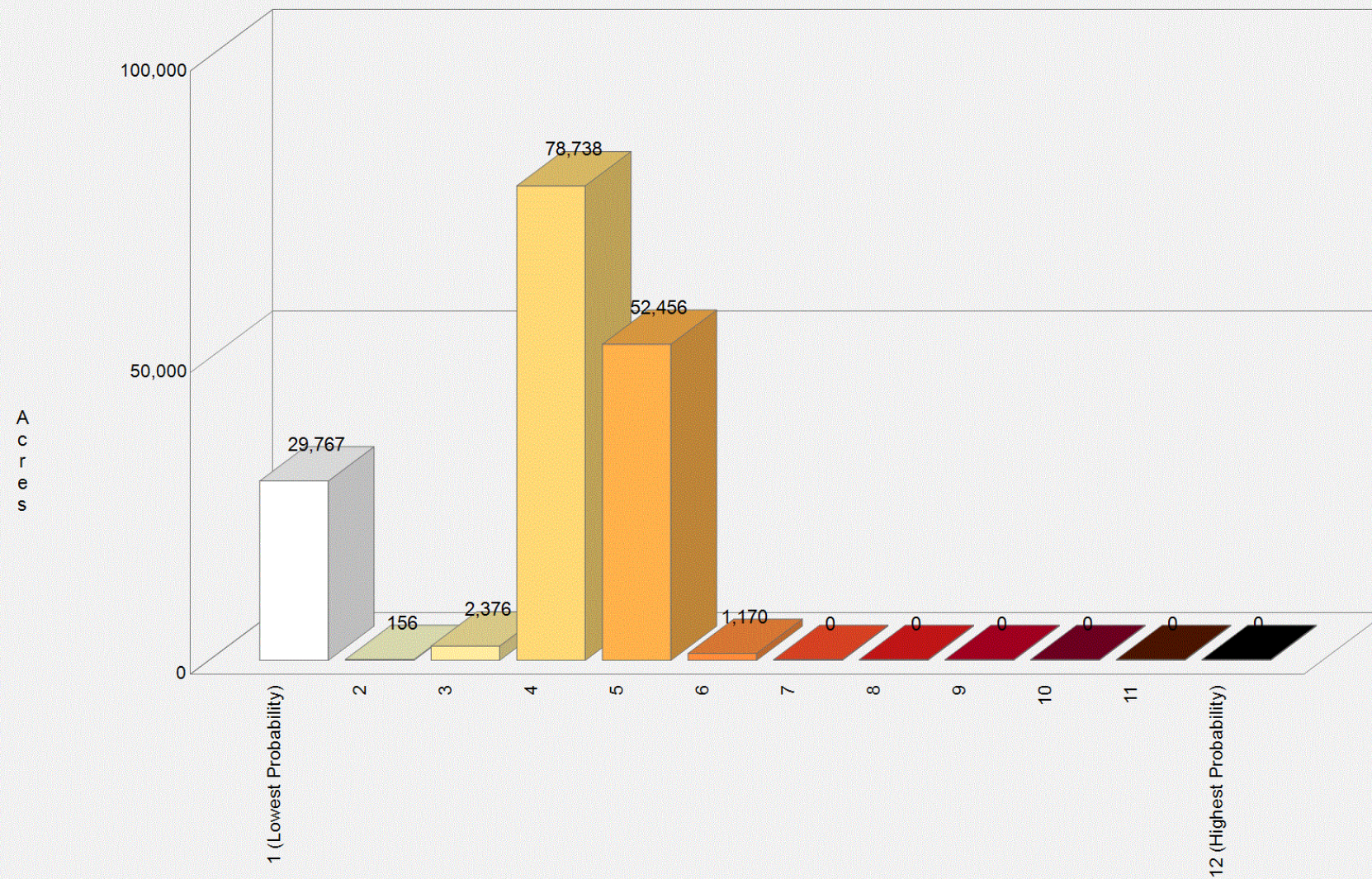
Burn probability is the likelihood of wildfire burning a specific location within a set time frame - commonly represented as the chance of burning during one calendar year or wildfire season.

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	29,767	18 %
	>0 - 0.0001000	156	0 %
	0.0001000 - 0.0002154	2,377	1 %
	0.0002154 - 0.0004642	78,738	48 %
	0.0004642 - 0.0010000	52,456	32 %
	0.0010000 - 0.0021544	1,170	1 %
	0.0021544 - 0.0046416	0	0 %
	0.0046416 - 0.0100000	0	0 %
	0.0100000 - 0.0215443	0	0 %
	0.0215443 - 0.0464159	0	0 %
	0.0464159 - 0.1000000	0	0 %
	>0.1000000	0	0 %
	Total	164,663	100 %

Lincoln County Burn Probability



Wildfire Exposure Score

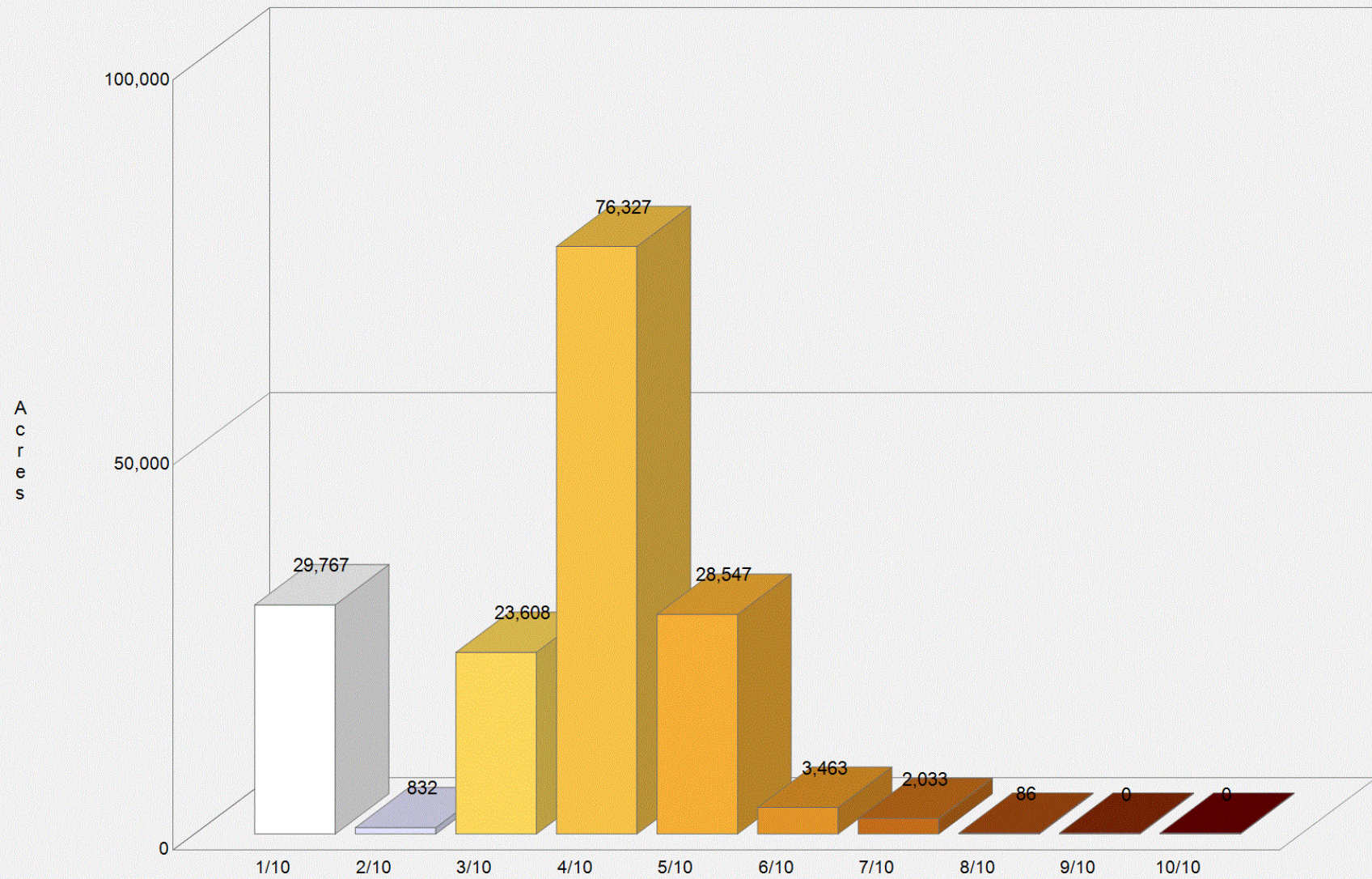
Wildfire Exposure Score combines two important wildfire factors related to structure exposure: the chance of wildfire (Burn Probability – defined as the likelihood of wildfire burning a specific location within a calendar year or wildfire season) and the potential damage to homes from wildfire (Damage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

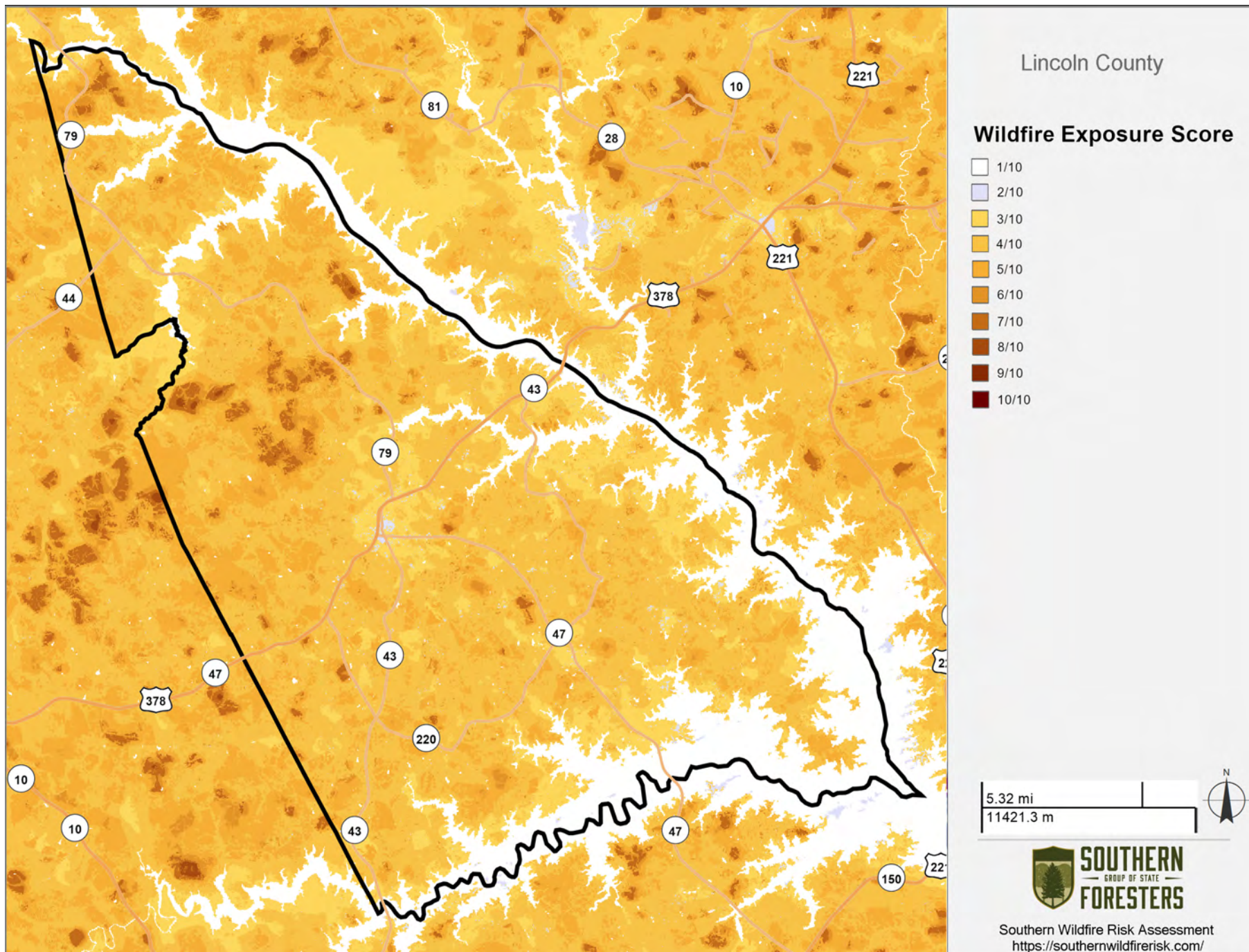
Exposure scores are provided for all areas regardless of whether a structure currently exists at that location.

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

	Wildfire Exposure Score Category	Acres	Percent
	1/10	29,767	18 %
	2/10	832	1 %
	3/10	23,608	14 %
	4/10	76,327	46 %
	5/10	28,547	17 %
	6/10	3,463	2 %
	7/10	2,033	1 %
	8/10	86	0 %
	9/10	0	0 %
	10/10	0	0 %
	Total	164,663	100 %

Lincoln County
Wildfire Exposure Score





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	100	0 %
	Very Low	110,221	67 %
	Low	50,861	31 %
	Moderate	2,764	2 %
	High	718	0 %
	Very High	0	0 %
	Total	164,663	100 %

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](#)

[Housing Unit Impact](#)

[Housing Unit Risk](#)

[Sources of Ember Load to Buildings](#)

[Functional Wildland Urban Interface \(WUI\)](#)

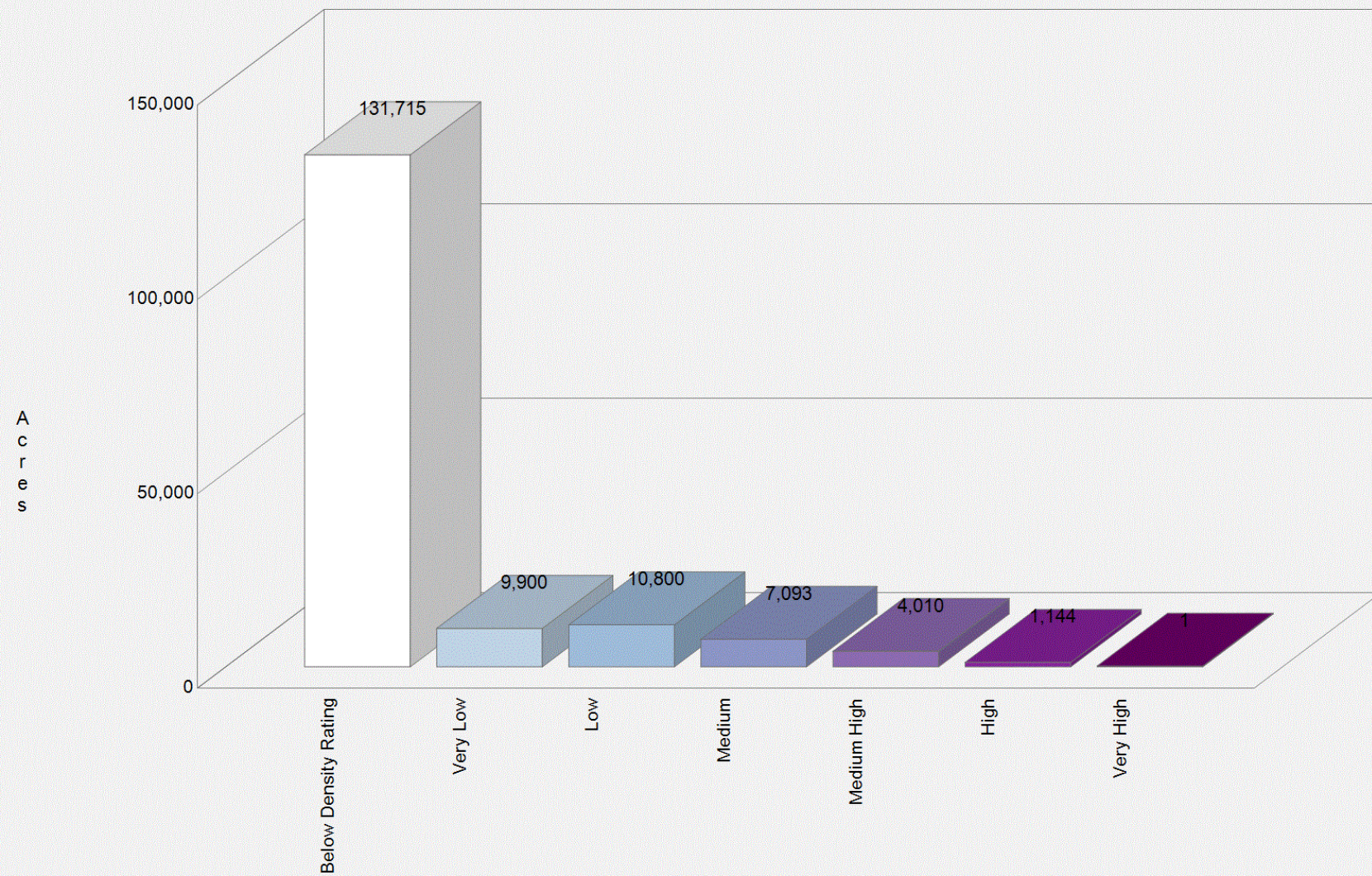
Housing Unit Density

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	131,715	80 %
	Very Low	9,900	6 %
	Low	10,800	7 %
	Medium	7,093	4 %
	Medium High	4,010	2 %
	High	1,144	1 %
	Very High	1	0 %
	Total	164,663	100 %

Lincoln County Housing Unit Density



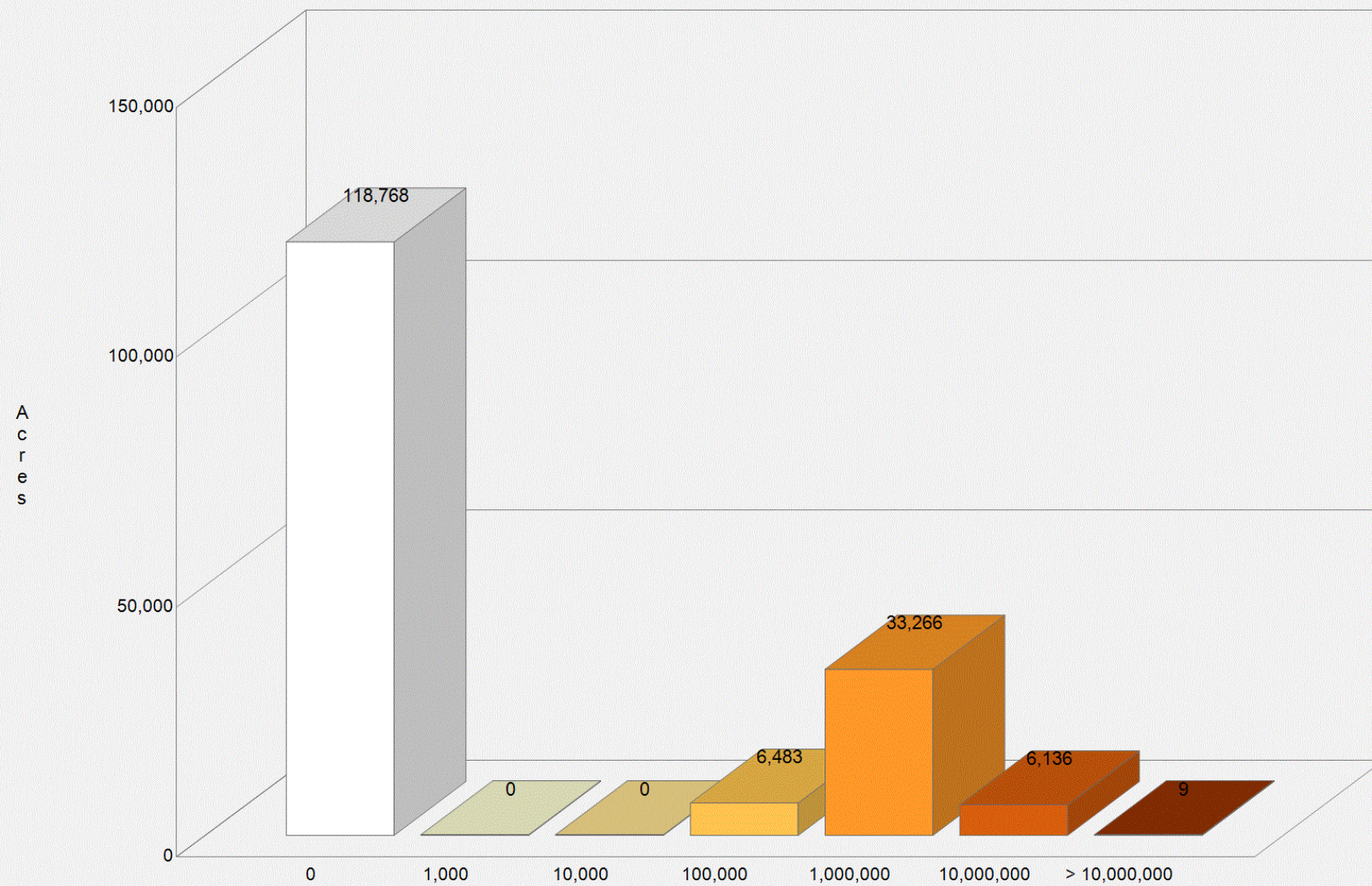
Housing Unit Impact

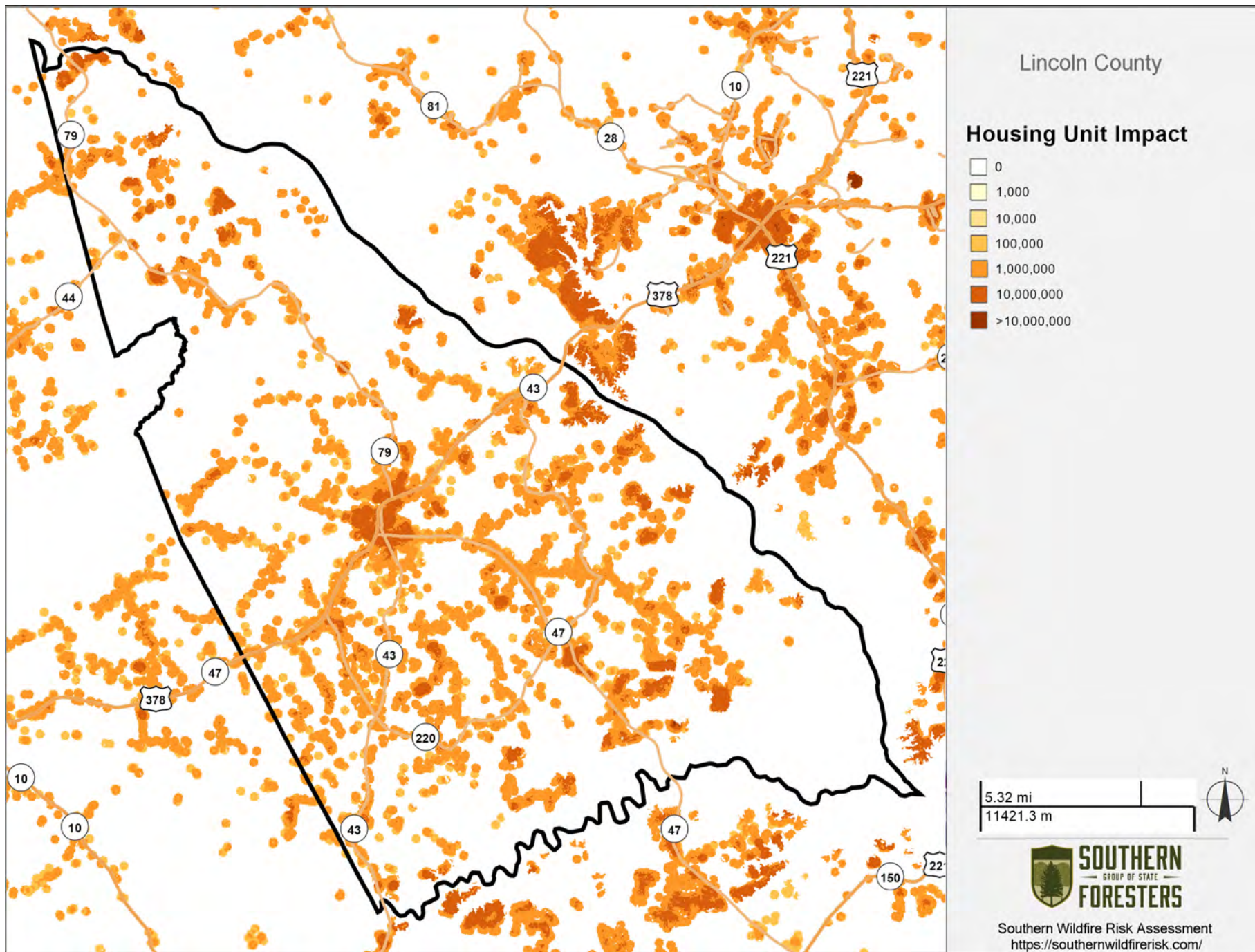
This dataset represents the relative potential impact to housing units if a fire were to occur. Housing Unit Impact (HUImpact) incorporates housing-unit counts with the general consequences of fire on a home as a function of fire intensity. HUImpact does not include fire likelihood and does not reflect 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	118,768	72 %
	1,000	0	0 %
	10,000	0	0 %
	100,000	6,483	4 %
	1,000,000	33,266	20 %
	10,000,000	6,136	4 %
	> 10,000,000	9	0 %
	Total	164,663	100 %

Lincoln County Housing Unit Impact





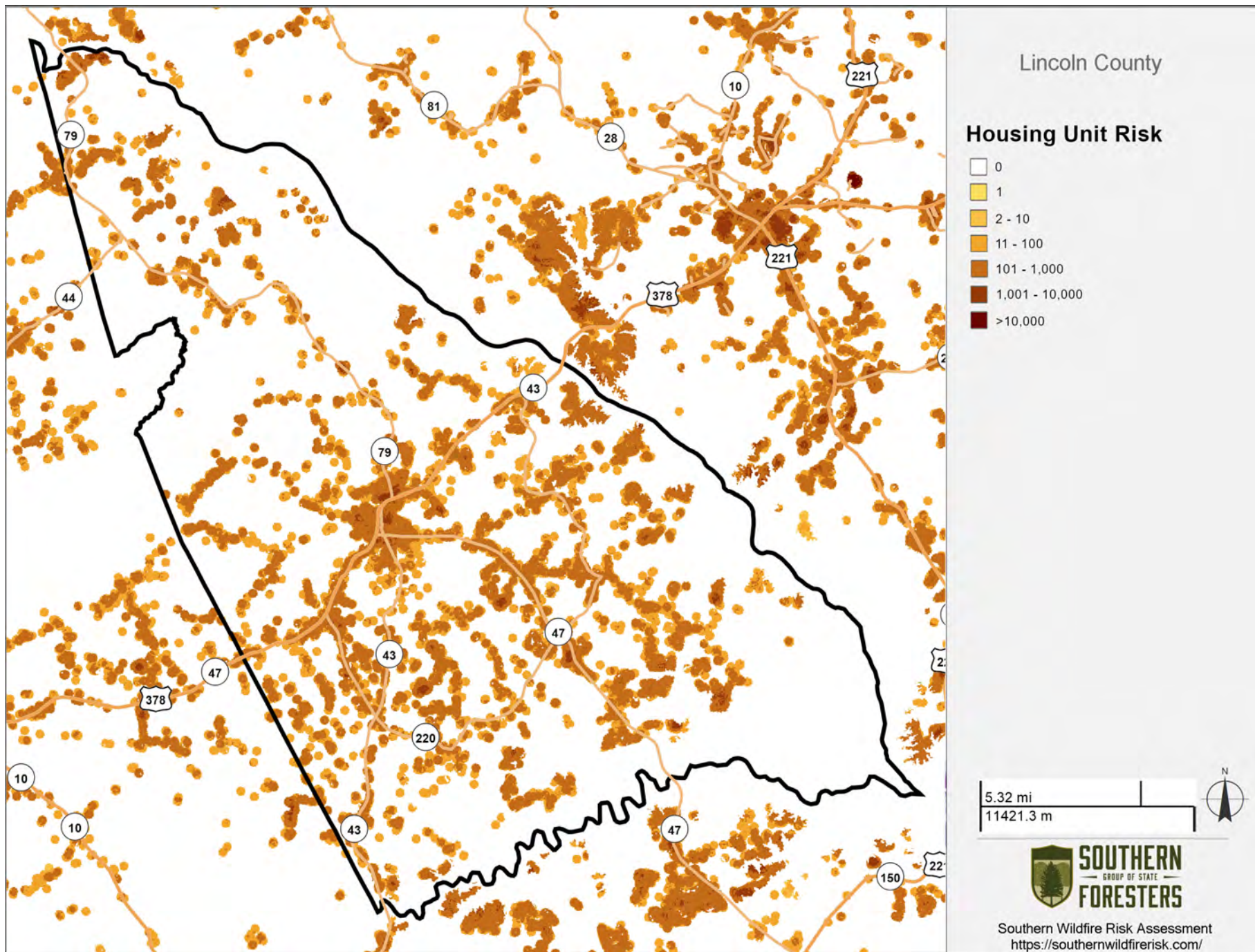
Housing Unit Risk

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	118,768	72 %
	1	0	0 %
	2 - 10	109	0 %
	11 - 100	17,847	11 %
	101 - 1,000	27,277	17 %
	1,001 - 10,000	663	0 %
	> 10,000	0	0 %
	Total	164,663	100 %



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.

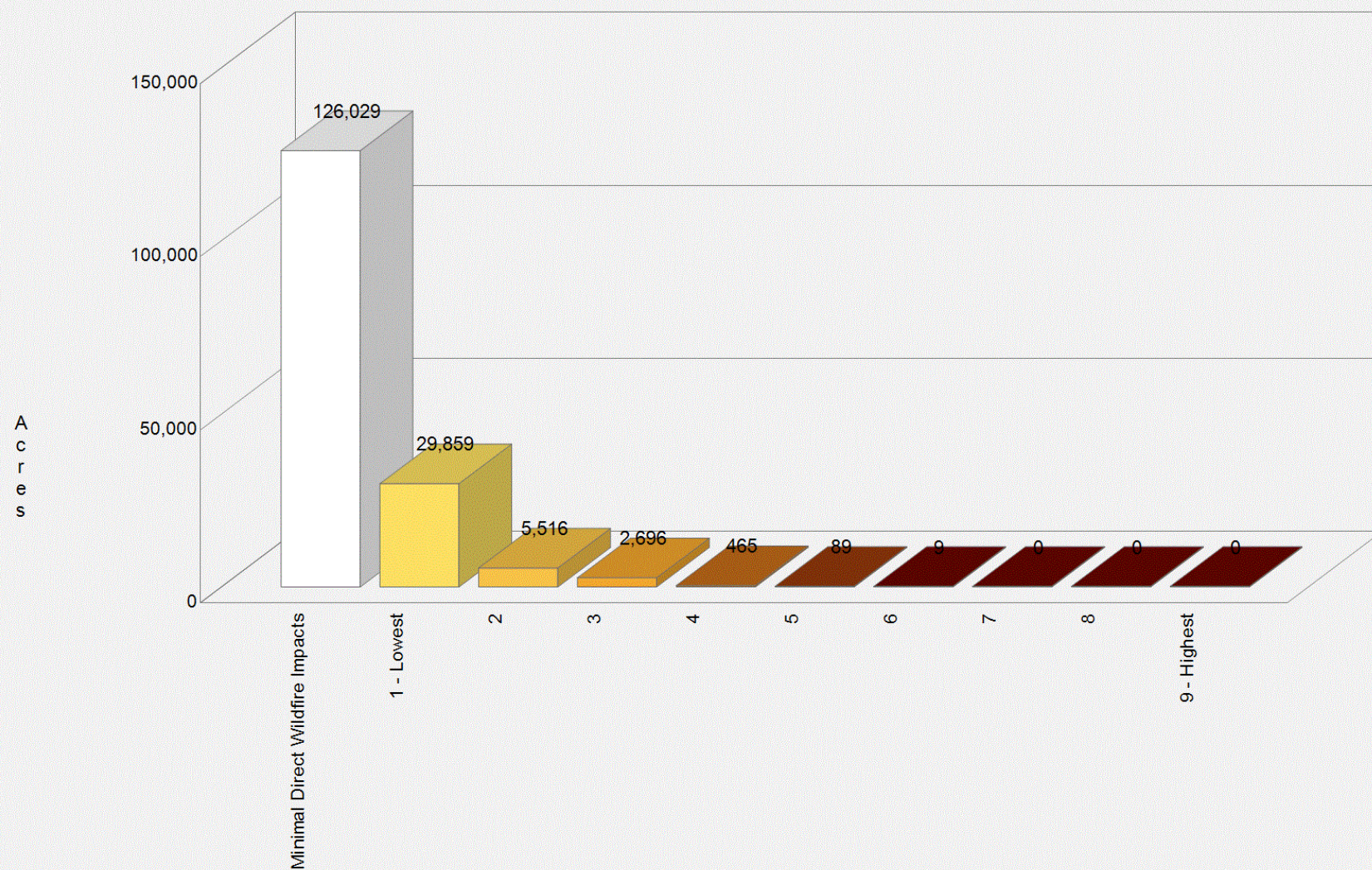
SELB identifies burnable land cover that produces embers capable of reaching nearby buildings. Units are an index of the relative number of embers rather than a count of embers produced. Ember production is a function of fire type and intensity; ember travel is a function of wind speed and direction. 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.

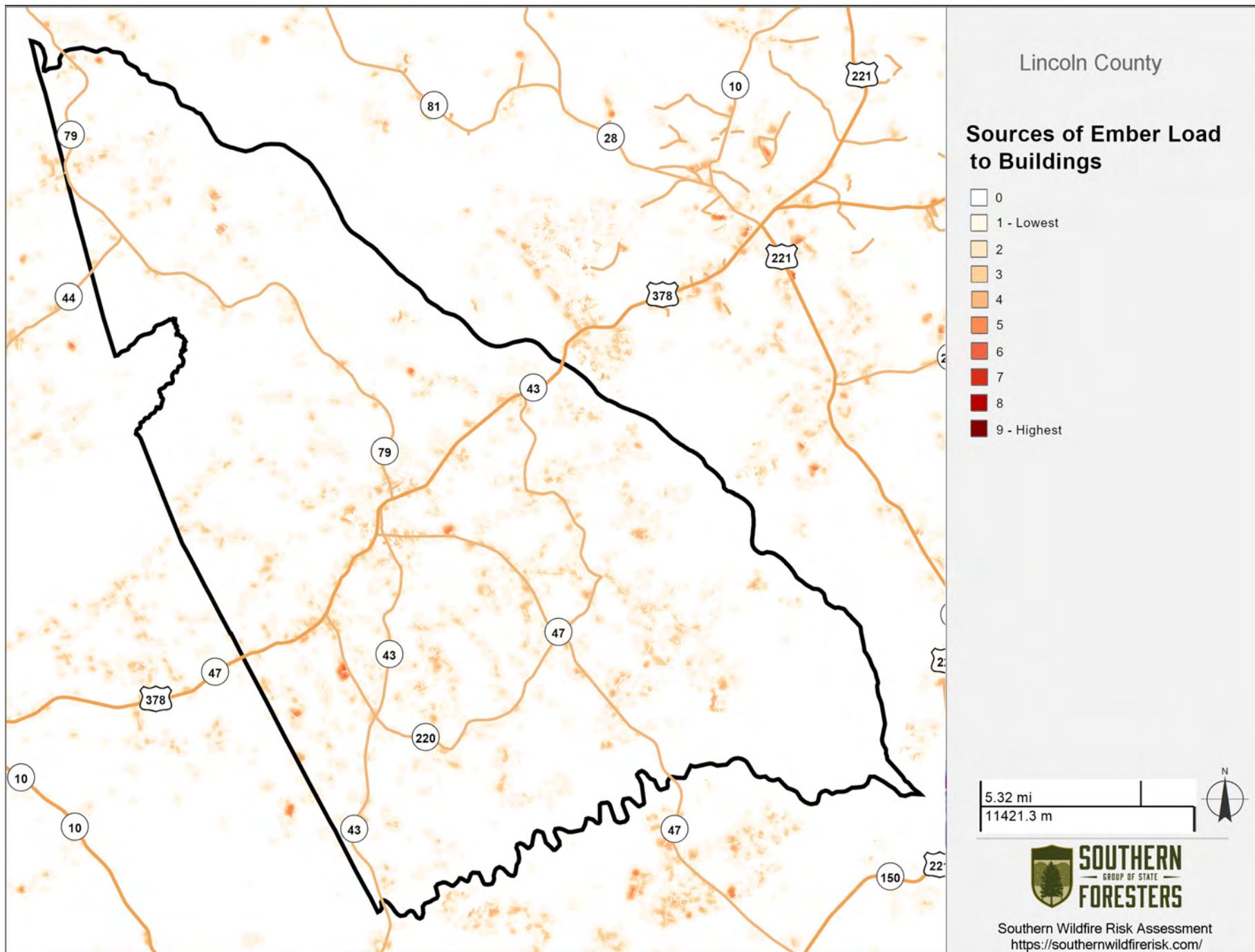
The Sources of Ember Load to Buildings layer is useful for prioritizing mitigation actions to reduce the potential for ember damage to buildings.

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	126,029	77 %
	1 - Lowest	29,859	18 %
	2	5,516	3 %
	3	2,696	2 %
	4	465	0 %
	5	89	0 %
	6	9	0 %
	7	0	0 %
	8	0	0 %
	9 - Highest	0	0 %
	Total	164,663	100 %

Lincoln County
Sources of Ember Load to Buildings





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.

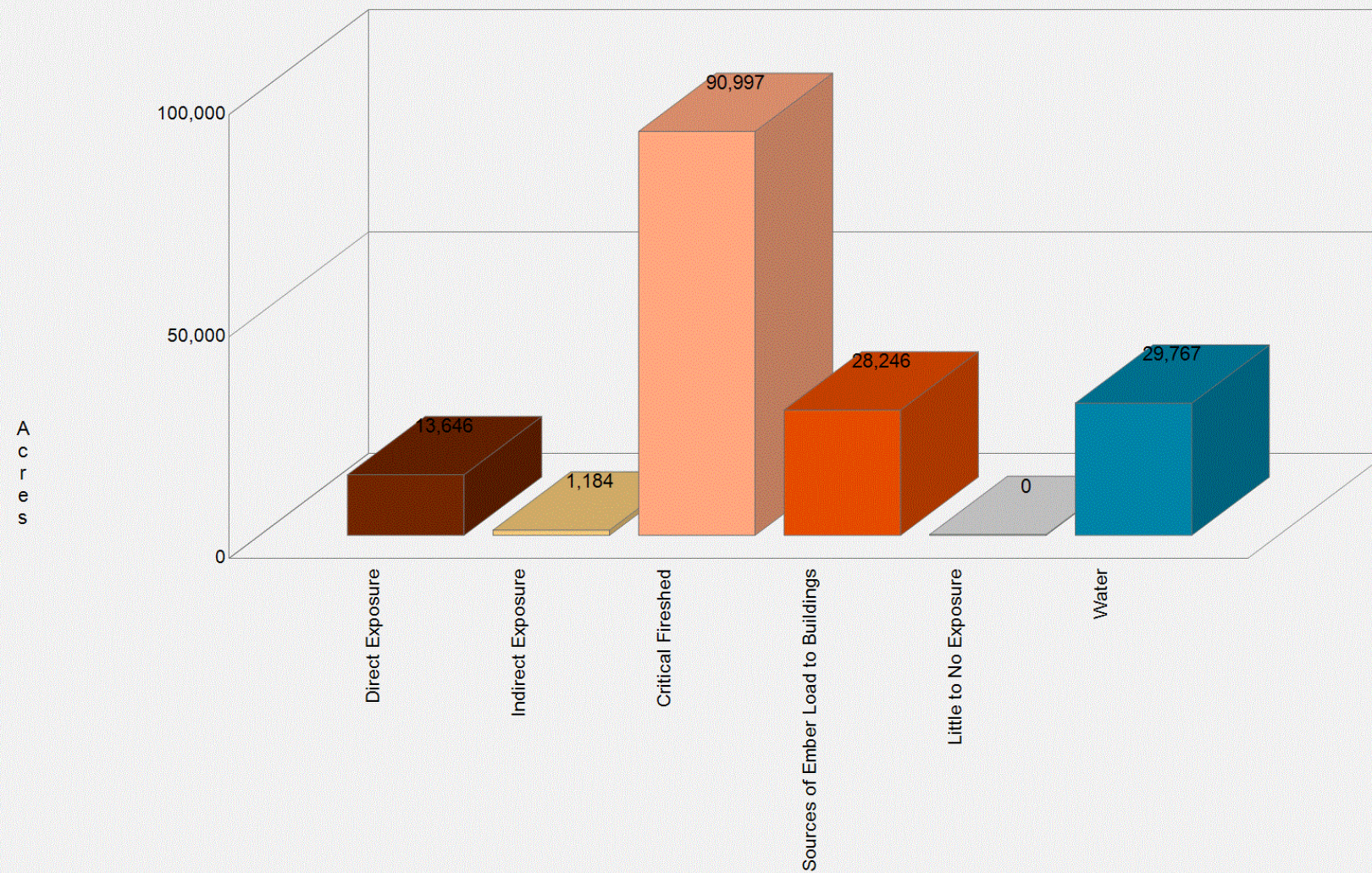
8: Sources of Ember Load to Buildings--Burnable land cover more than 75 m from a building that produces embers capable of reaching nearby buildings. Ember production is a function of fire type and intensity; ember travel is a function of wind speed and direction. Ember modeling is based on fire modeling 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	13,646	8 %
	Indirect Exposure	1,184	1 %
	Critical Fireshed	90,997	56 %
	Sources of Ember Load to Buildings	28,246	17 %
	Little to No Exposure	0	0 %
	Water	29,767	18 %
	Total	163,839	100 %

Lincoln County
Functional Wildland Urban Interface (WUI)



Flame Front Characteristics

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

Contents:

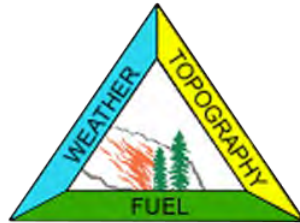
- [Characteristic Fire Intensity Scale](#)
- [95th Percentile Fire Intensity Scale](#)
- [Characteristic Flame Length](#)
- [95th Percentile Flame Length](#)
- [Characteristic Rate of Spread](#)
- [95th Percentile Rate of Spread](#)
- [Probability of Crown Fire](#)

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 there 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:

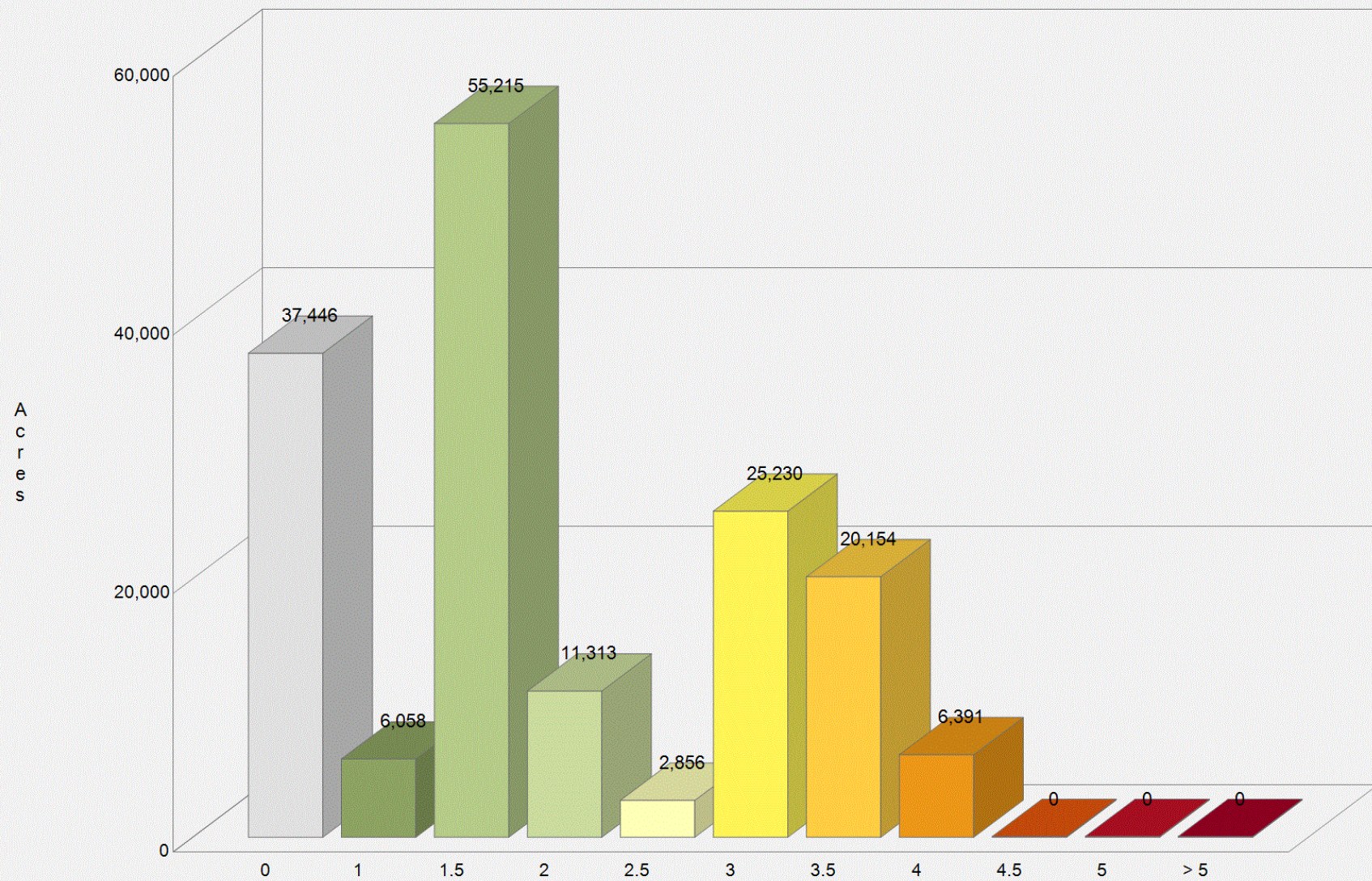
Flames exceeding 200 feet in length; expect extreme fire behavior.

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	37,446	23 %
	1	6,058	4 %
	1.5	55,215	34 %
	2	11,313	7 %
	2.5	2,856	2 %
	3	25,230	15 %
	3.5	20,154	12 %
	4	6,391	4 %
	4.5	0	0 %
	5	0	0 %
	> 5	0	0 %
	Total	164,663	100 %

Lincoln County
Characteristic Fire Intensity Scale



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:

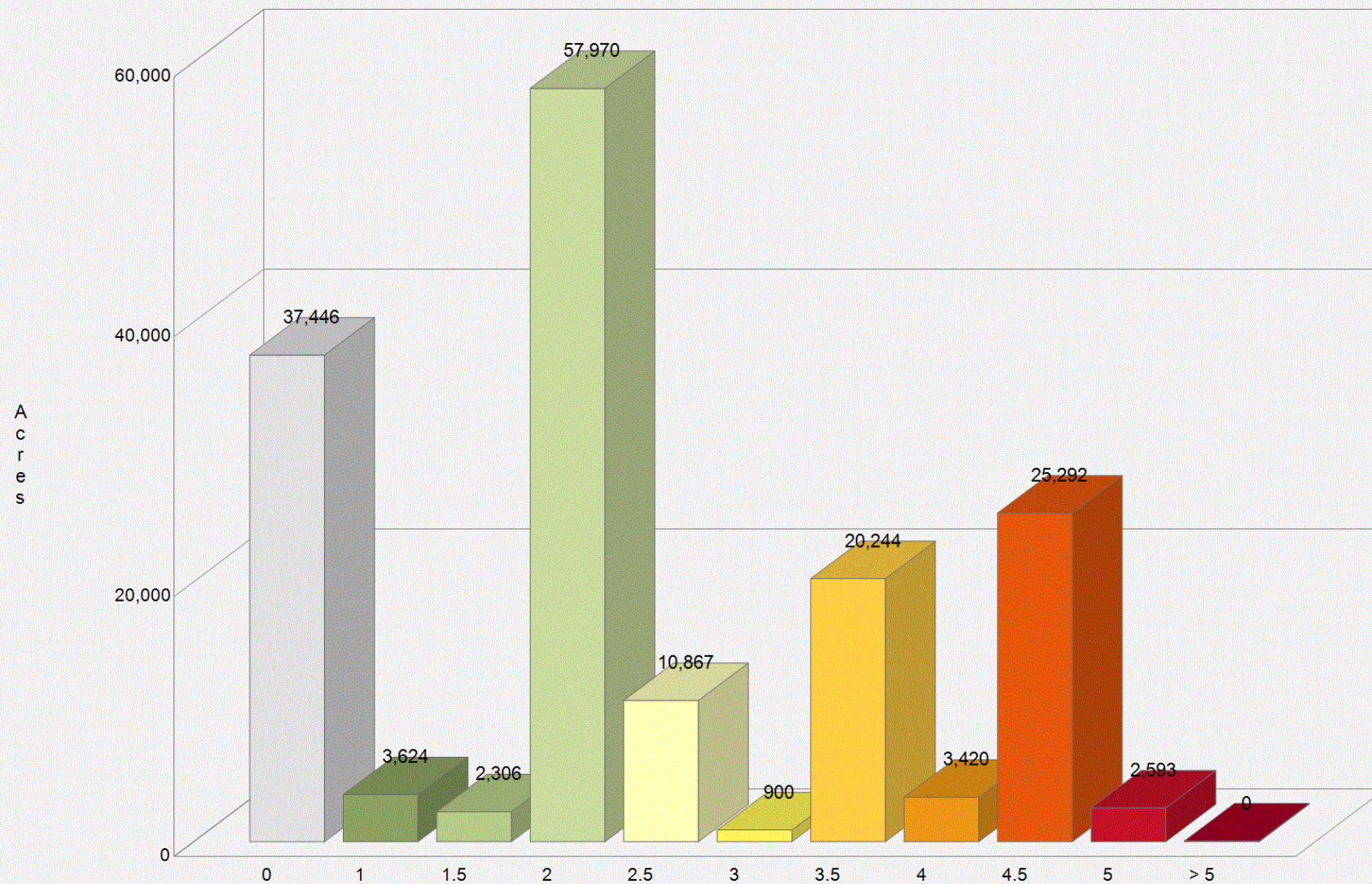
Flames exceeding 200 feet in length; expect extreme fire behavior.

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	37,446	23 %
	1	3,624	2 %
	1.5	2,306	1 %
	2	57,970	35 %
	2.5	10,867	7 %
	3	900	1 %
	3.5	20,244	12 %
	4	3,420	2 %
	4.5	25,292	15 %
	5	2,593	2 %
	> 5	0	0 %
	Total	164,663	100 %

Lincoln County
95th Percentile Fire Intensity Scale



Characteristic Flame Length

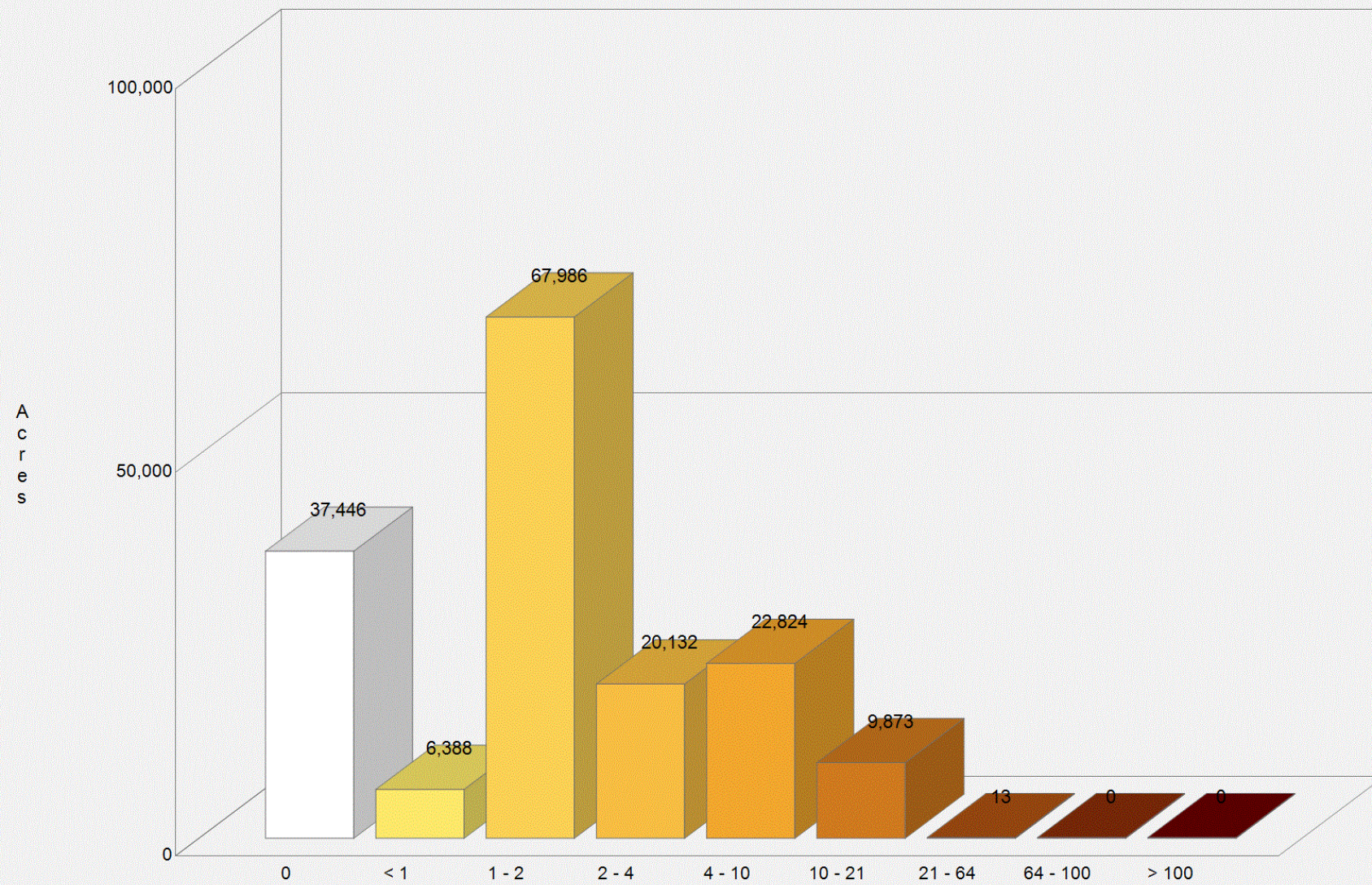
This layer represents the flame length (in feet) as determined by fuel and weather characteristics. These results are weighted across a full range of possible wind and weather conditions and include the contribution of crown fire flame lengths, if applicable. Flame length is calculated using WildEST, 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	37,446	23 %
	< 1	6,388	4 %
	1 - 2	67,986	41 %
	2 - 4	20,132	12 %
	4 - 10	22,824	14 %
	10 - 21	9,873	6 %
	21 - 46	13	0 %
	46 - 100	0	0 %
	> 100	0	0 %
	Total	164,663	100 %

Lincoln County Characteristic Flame Length



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	37,446	23 %
	< 1	4,210	3 %
	1 - 2	59,950	36 %
	2 - 4	10,951	7 %
	4 - 10	17,872	11 %
	10 - 21	6,137	4 %
	21 - 46	5,870	4 %
	46 - 100	21,741	13 %
	> 100	486	0 %
	Total	164,663	100 %

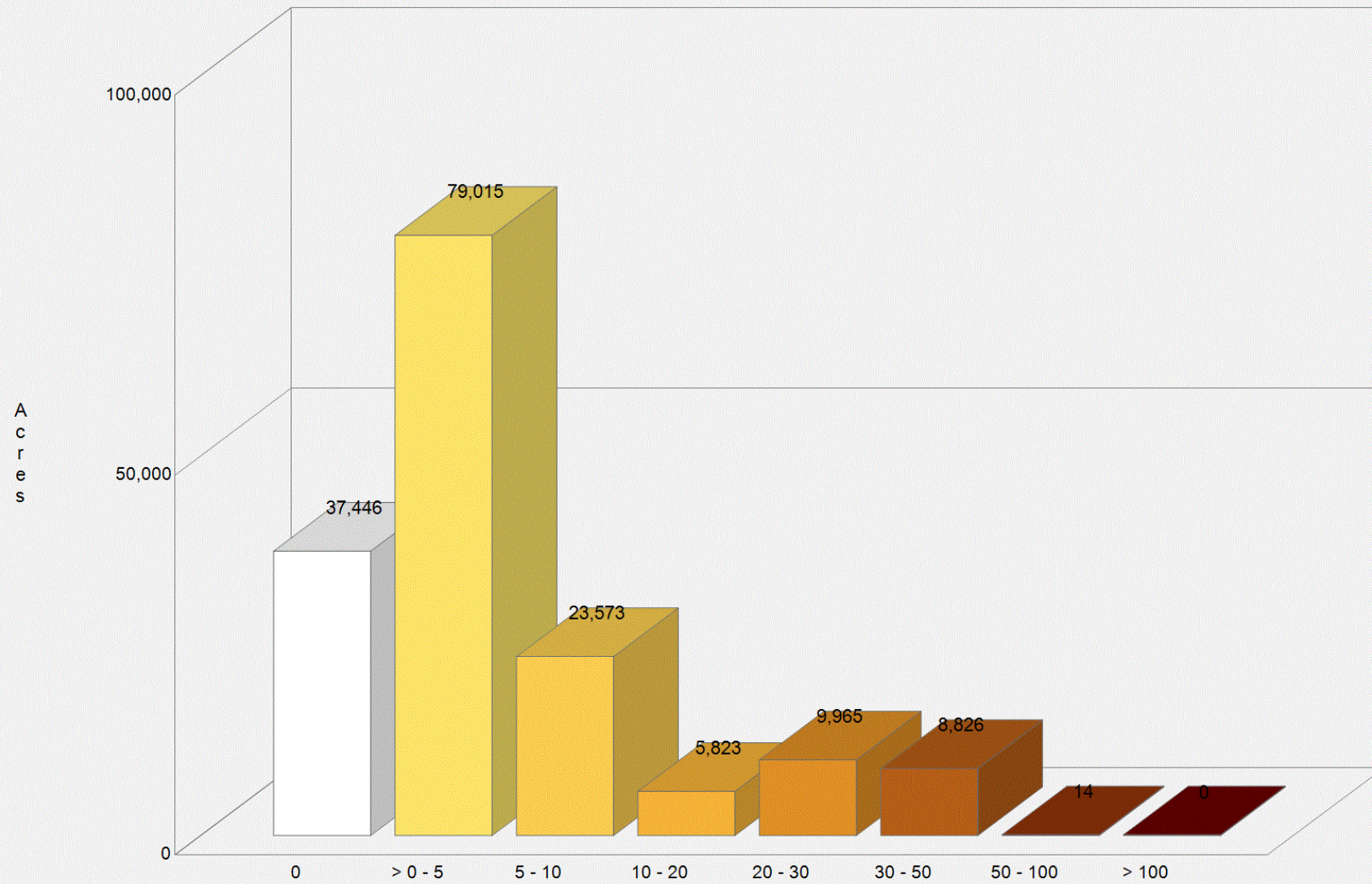
Characteristic Rate of Spread

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	37,446	23 %
	> 0 - 5	79,015	48 %
	5 - 10	23,573	14 %
	10 - 20	5,823	4 %
	20 - 30	9,965	6 %
	30 - 50	8,826	5 %
	50 - 100	14	0 %
	> 100	0	0 %
	Total	164,663	100 %

Lincoln County
Characteristic Rate of Spread



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	37,446	23 %
	> 0 - 5	73,223	44 %
	5 - 10	922	1 %
	10 - 20	84	0 %
	20 - 30	3,176	2 %
	30 - 50	15,555	9 %
	50 - 100	33,623	20 %
	> 100	634	0 %
	Total	164,663	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.

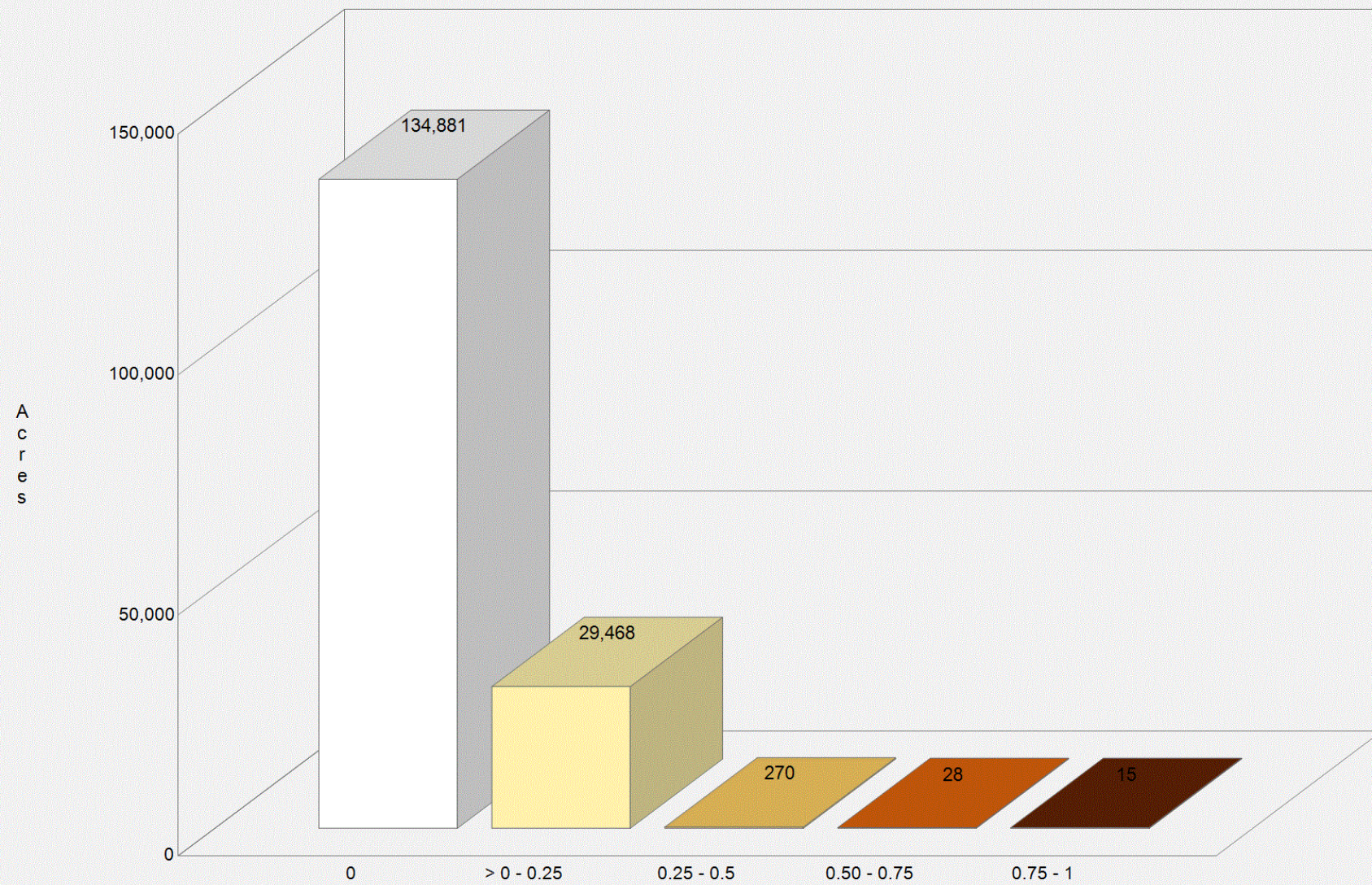
Crown (or canopy) fires are very dangerous, destructive, and difficult to control due to their increased fire intensity. From a planning perspective, it is important to identify where these conditions are likely to occur on the landscape so that special preparedness measures can be taken if necessary.

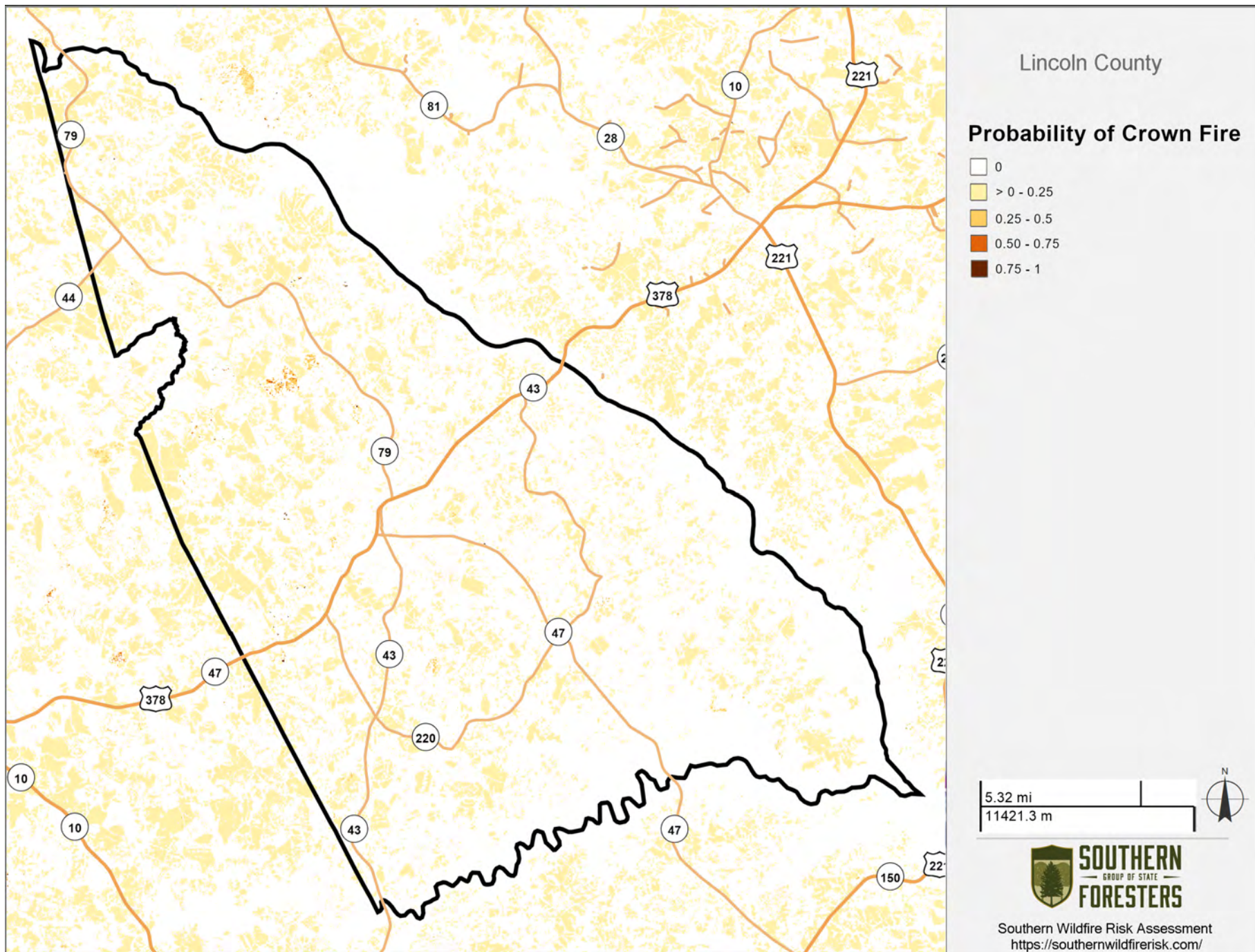
Higher probability values indicate a high likelihood of crown fire. Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about the 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	134,881	82 %
	> 0 - 0.25	29,468	18 %
	0.25 - 0.5	270	0 %
	0.50 - 0.75	29	0 %
	0.75 - 1	15	0 %
	Total	164,663	100 %

Lincoln County
Probability of Crown Fire





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](#)

[Probability of Exceeding Mechanical Control](#)

[Probability of Extreme Fire Behavior](#)

[Suppression Difficulty Index](#)

[Wildfire Hazard Potential](#)

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.

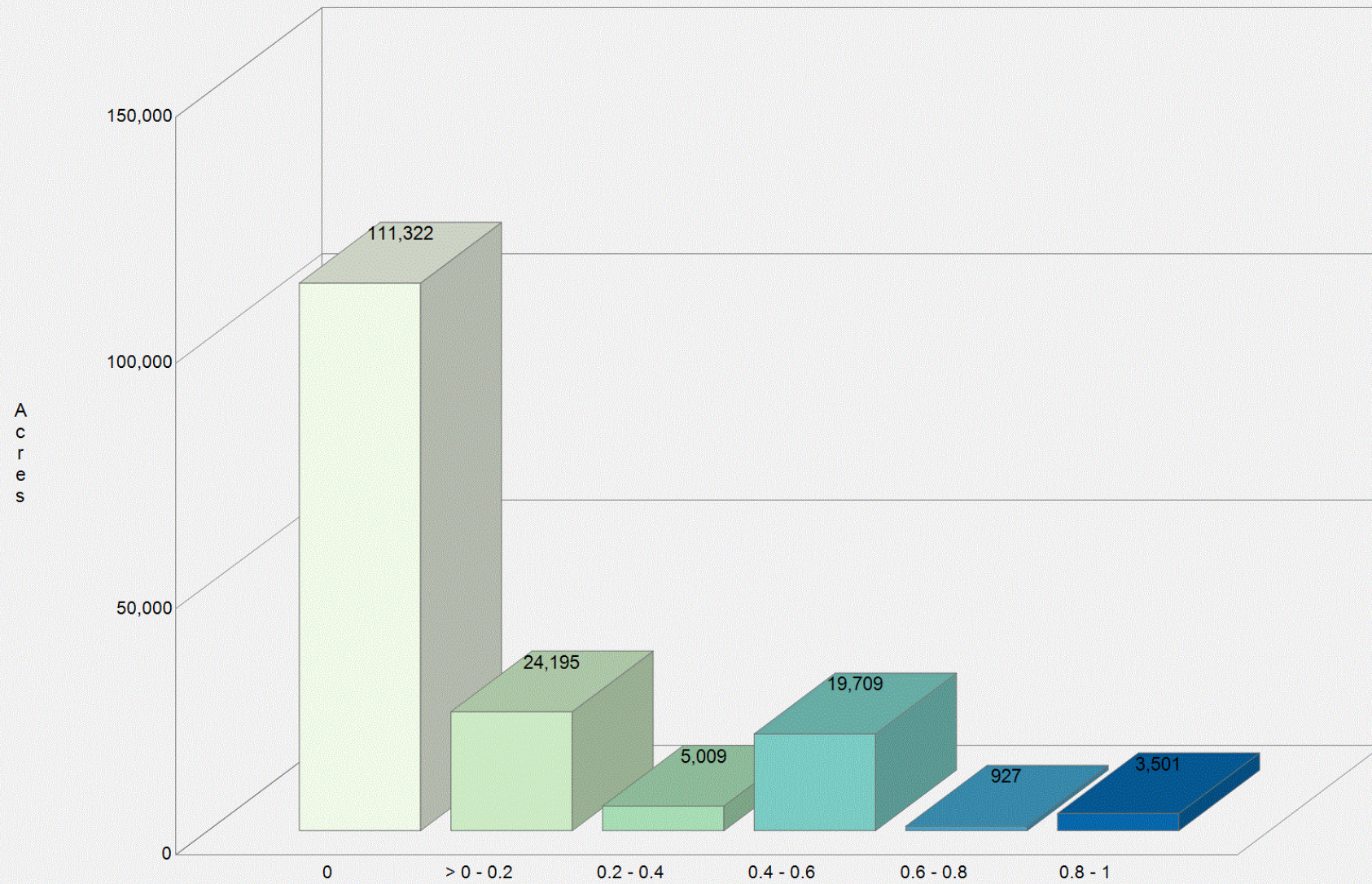
Higher probability values indicate a lower chance of success using manual control measures (i.e. hand crews and hand line). Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire 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	111,322	68 %
	> 0 - 0.2	24,195	15 %
	0.2 - 0.4	5,009	3 %
	0.4 - 0.6	19,709	12 %
	0.6 - 0.8	927	1 %
	0.8 - 1	3,501	2 %
	Total	164,663	100 %

Lincoln County
Probability of Exceeding Manual 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. 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	114,565	70 %
	> 0 - 0.2	43,816	27 %
	0.2 - 0.4	2,767	2 %
	0.4 - 0.6	395	0 %
	0.6 - 0.8	115	0 %
	0.8 - 1	3,005	2 %
	Total	164,663	100 %

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	130,155	79 %
	> 0 - 0.2	29,015	18 %
	0.2 - 0.4	2,271	1 %
	0.4 - 0.6	198	0 %
	0.6 - 0.8	2,859	2 %
	0.8 - 1	164	0 %
	Total	164,663	100 %

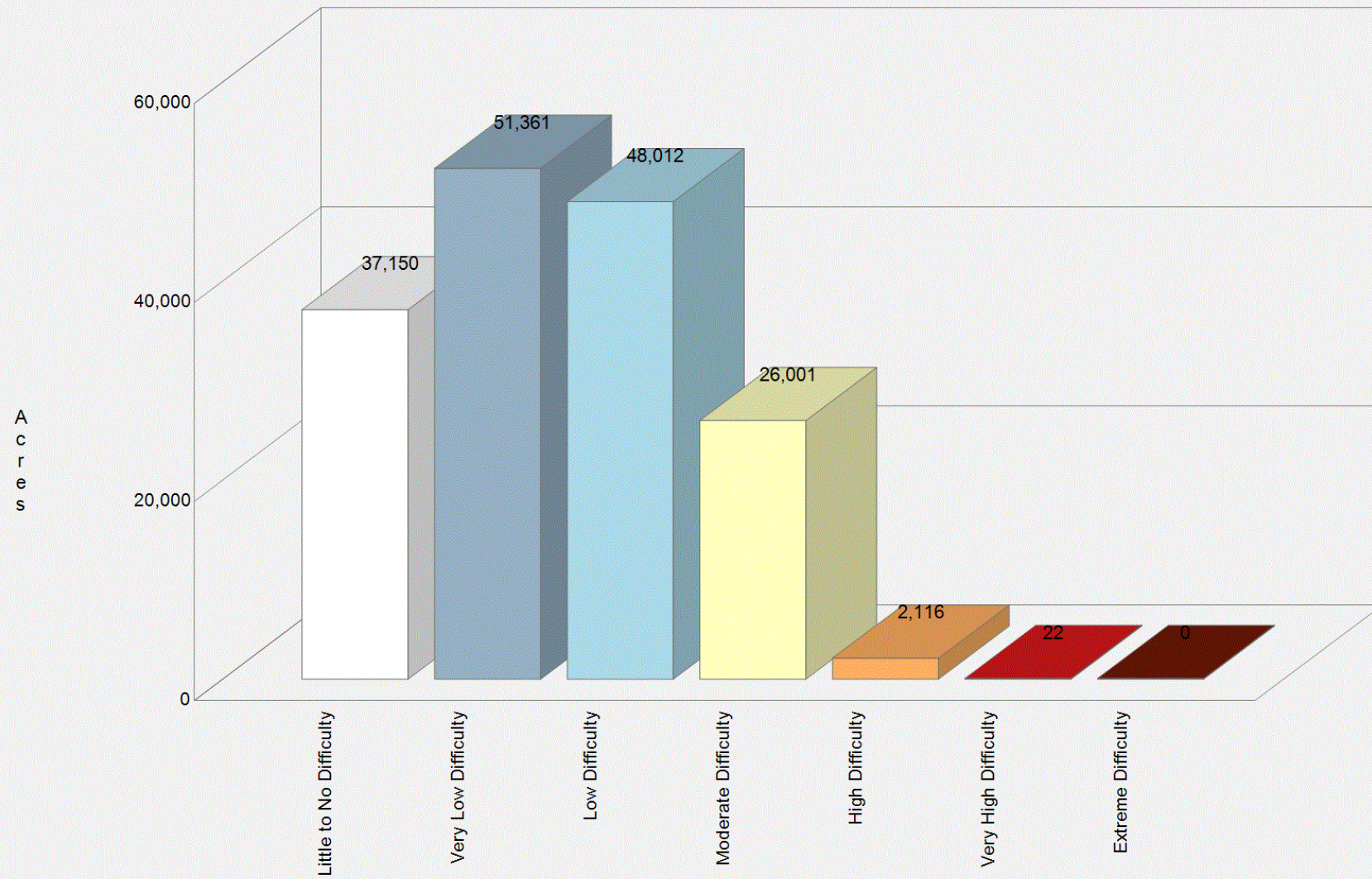
Suppression Difficulty Index

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	37,150	23 %
	Very Low Difficulty	51,361	31 %
	Low Difficulty	48,012	29 %
	Moderate Difficulty	26,001	16 %
	High Difficulty	2,116	1 %
	Very High Difficulty	23	0 %
	Extreme Difficulty	0	0 %
	Total	164,663	100 %

Lincoln County Suppression Difficulty Index

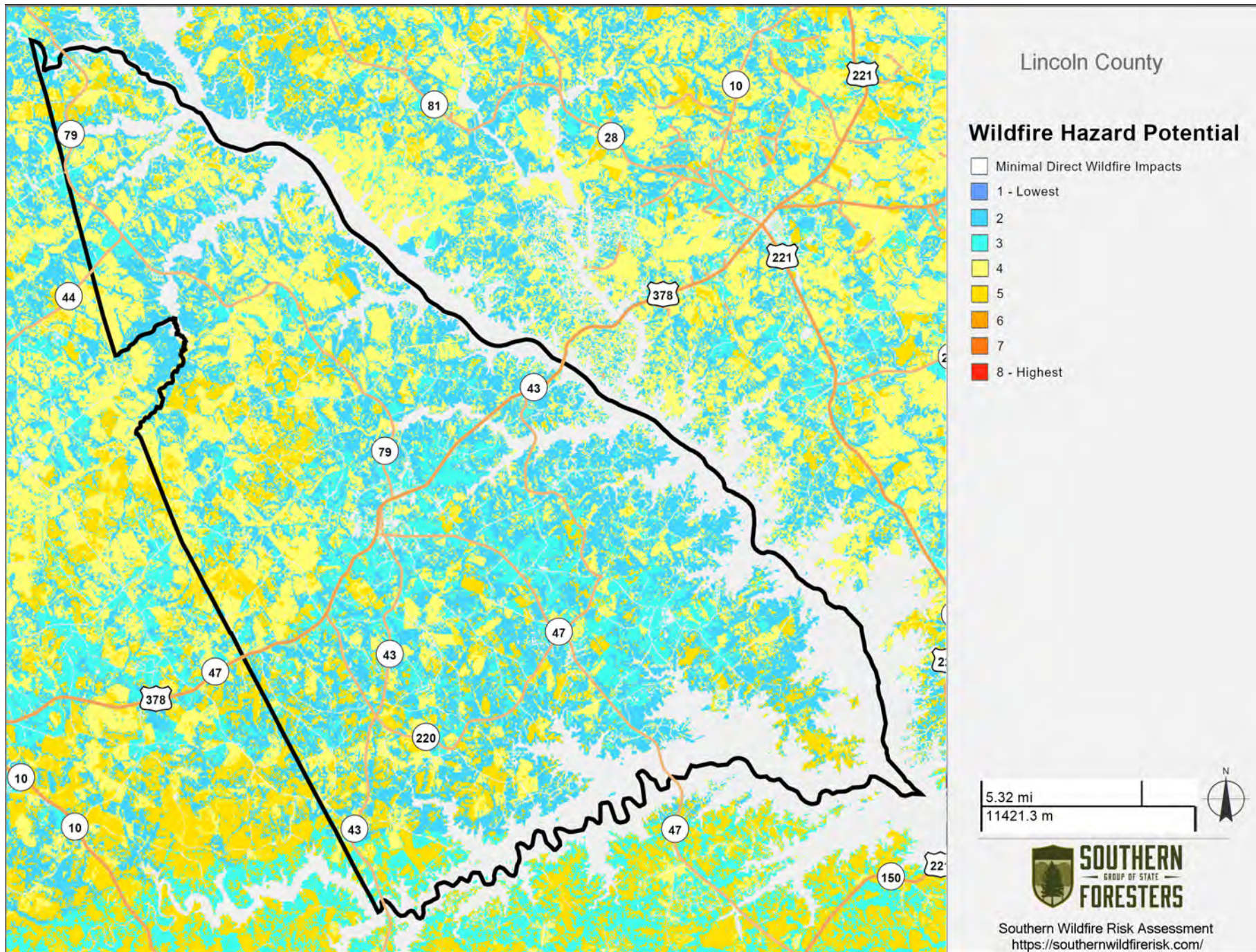


Wildfire Hazard Potential

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	37,446	23 %
	1 - Lowest	0	0 %
	2	53,773	33 %
	3	18,077	11 %
	4	39,419	24 %
	5	15,949	10 %
	6	0	0 %
	7	0	0 %
	8 - Highest	0	0 %
	Total	164,663	100 %



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 Load Index](#)

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.

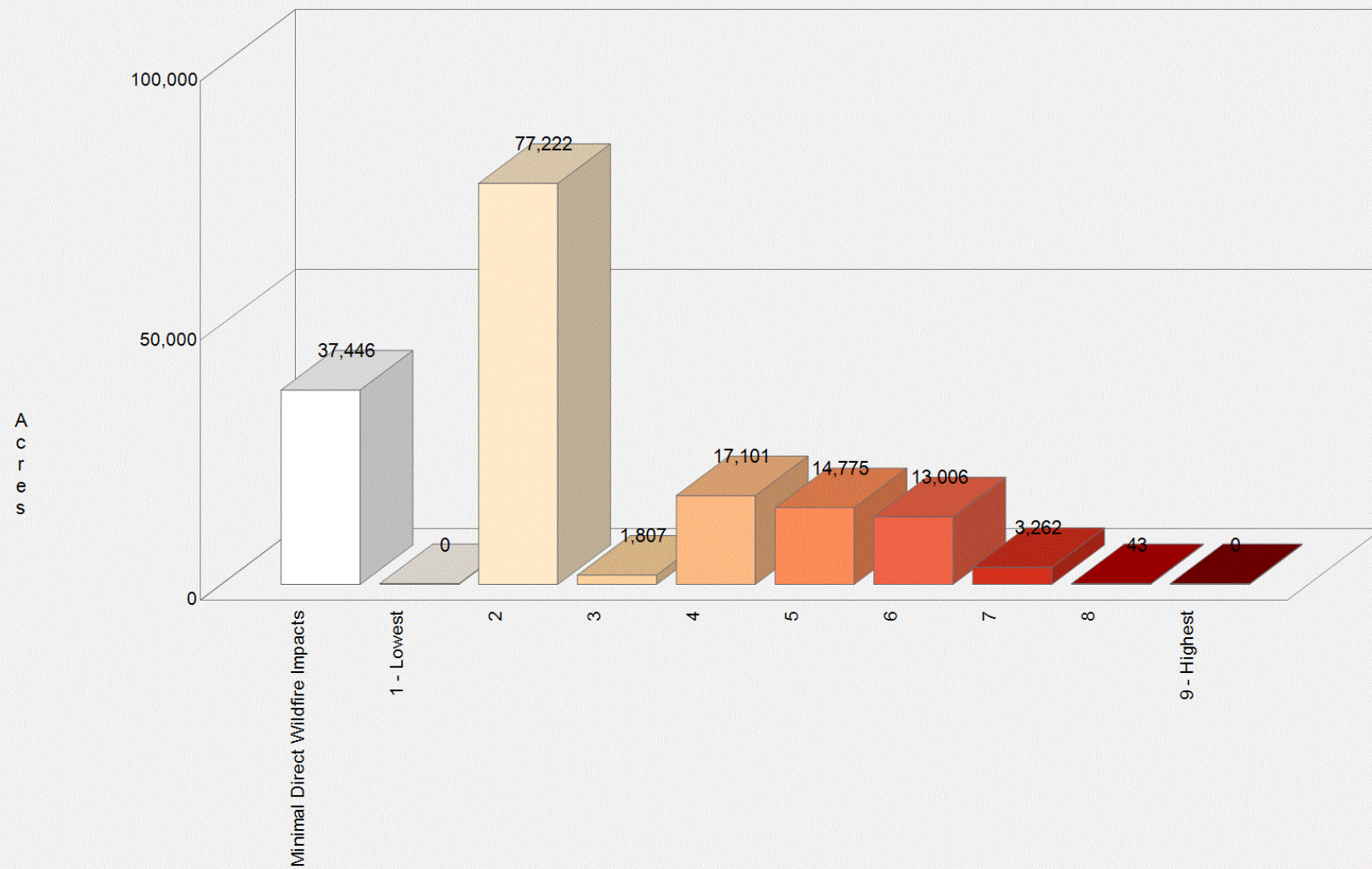
Embers can be produced from any burnable fuel source in the fuelscape, dependent on the wind and weather characteristics that lead to lofting embers.

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	37,446	23 %
	1 - Lowest	0	0 %
	2	77,222	47 %
	3	1,807	1 %
	4	17,101	10 %
	5	14,775	9 %
	6	13,006	8 %
	7	3,262	2 %
	8	43	0 %
	9 - Highest	0	0 %
	Total	164,663	100 %

Lincoln County
Conditional Ember Production Index



Conditional Ember Load Index

Conditional Ember Load Index (cELI) provides a relative index of embers received at a location, given that a fire occurs.

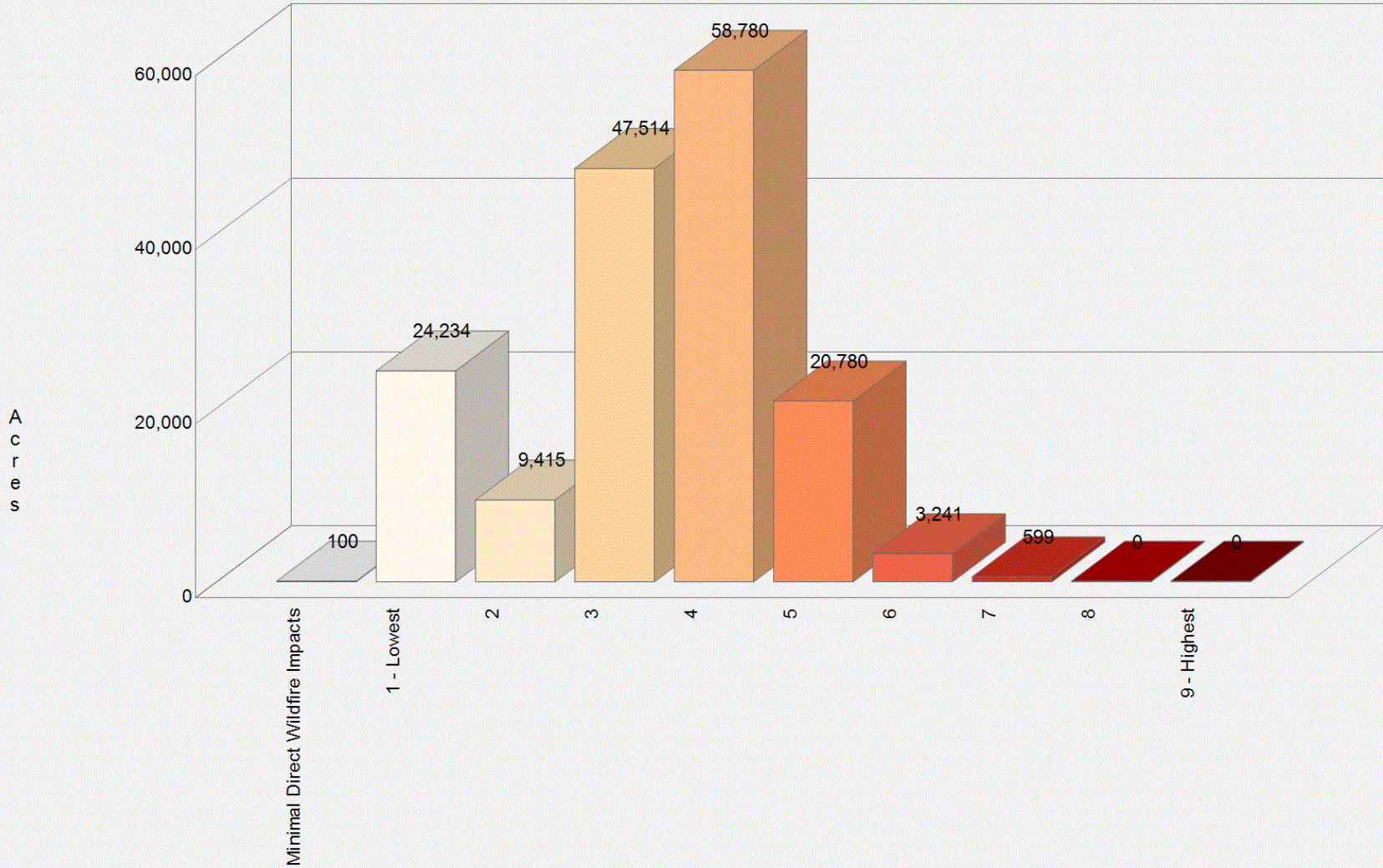
Ember load is based on surface and canopy fuel characteristics, climate, and topography within the pixel. Ember load incorporates downwind ember travel. Units are an index of the relative number of embers rather than a count of embers produced. Conditional ELI is based on heading-only fire behavior and does not include the likelihood of wildfire. Embers can be received by any pixel in the fuelscape; including both burnable and nonburnable fuel types.

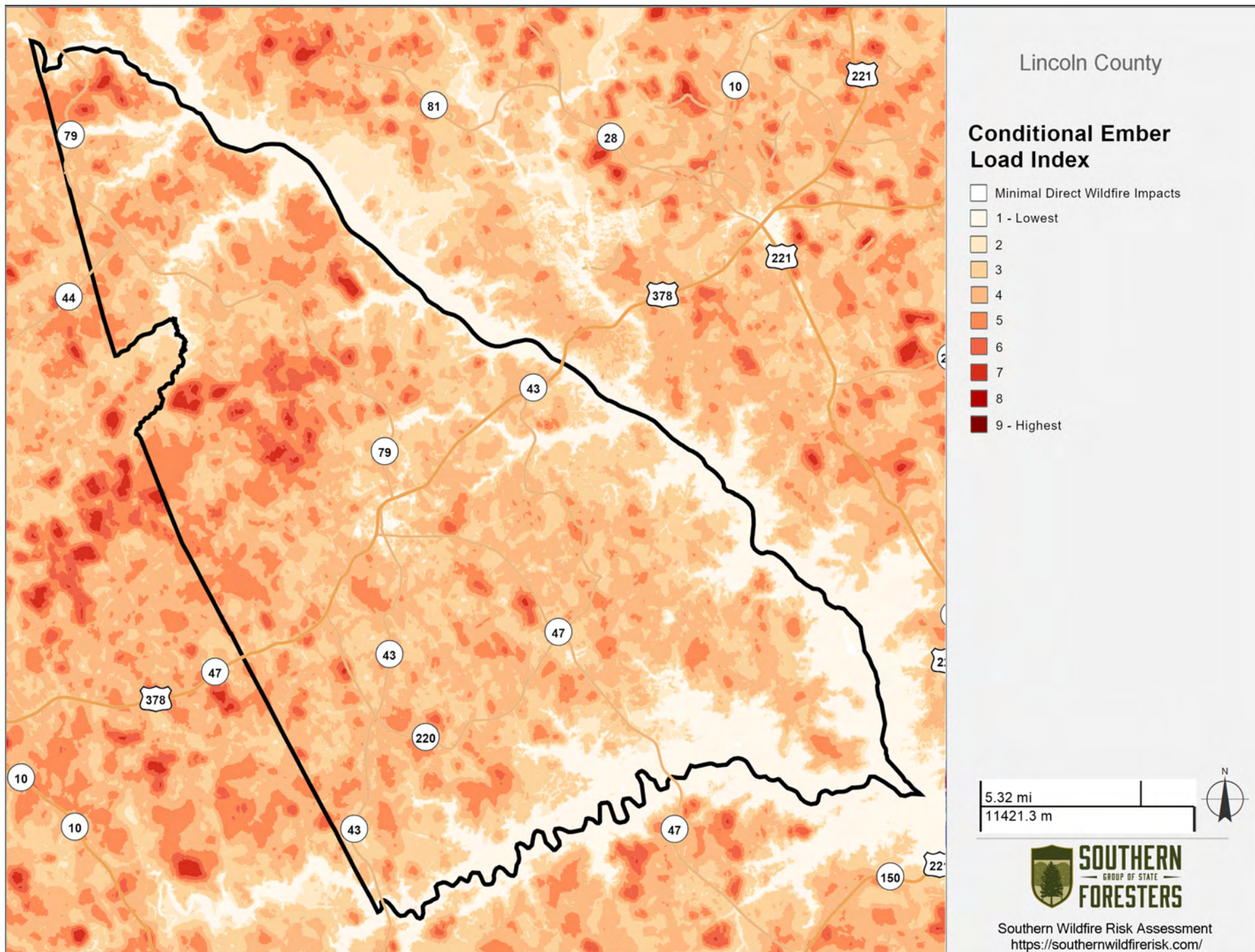
Conditional ELI can be used to prioritize building hardening activities to resist ember ignition.

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

	Conditional Ember Load Index Category	Acres	Percent
	Minimal Direct Wildfire Impacts	100	0 %
	1 - Lowest	24,234	15 %
	2	9,415	6 %
	3	47,514	29 %
	4	58,780	36 %
	5	20,781	13 %
	6	3,241	2 %
	7	599	0 %
	8	0	0 %
	9 - Highest	0	0 %
	Total	164,663	100 %

Lincoln County
Conditional Ember Load Index





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](#)

[Percent Slope](#)

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

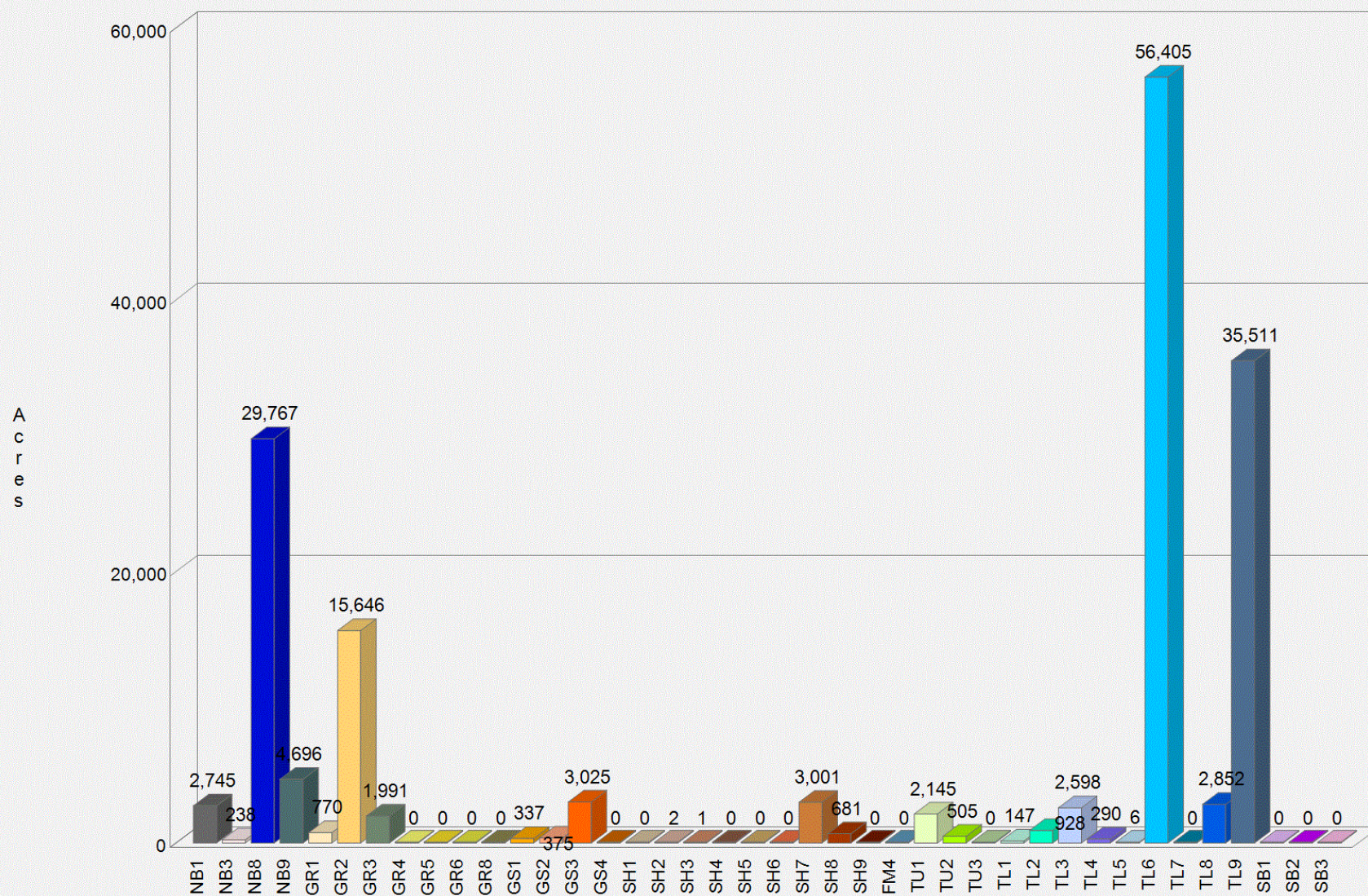
Data Source: Southern Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

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.	2,745	2 %
	NB3	2005	Agricultural field, maintained in nonburnable condition.	238	0 %
	NB8	2005	Open water	29,767	18 %
	NB9	2005	Bare ground	4,697	3 %
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.	770	0 %
	GR2	2005	Moderately coarse continuous grass, average depth about 1 foot. Spread rate high; flame length moderate.	15,646	10 %
	GR3	2005	Very coarse grass, average depth about 2 feet. Spread rate high; flame length moderate.	1,991	1 %
	GR4	2005	Moderately coarse continuous grass, average depth about 2 feet. Spread rate very high; flame length high.	0	0 %
	GR5	2005	Dense, coarse grass, average depth about 1 to 2 feet. Spread rate very high; flame length high.	0	0 %
	GR6	2005	Dryland grass about 1 to 2 feet tall. Spread rate very high; flame length very high.	0	0 %
	GR8	2005	Heavy, coarse, continuous grass 3 to 5 feet tall. Spread rate very high; flame length very high.	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.	337	0 %
	GS2	2005	Shrubs are 1 to 3 feet high, moderate grass load. Spread rate high; flame length moderate.	375	0 %
	GS3	2005	Moderate grass/shrub load, average grass/shrub depth less than 2 feet. Spread rate high; flame length moderate.	3,025	2 %
	GS4	2005	Heavy grass/shrub load, depth greater than 2 feet. Spread rate high; flame length very high.	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.	0	0 %
	SH2	2005	Moderate fuel load (higher than SH01), depth about 1 foot, no grass fuel present. Spread rate low; flame length low.	2	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.	1	0 %
	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.	0	0 %
	SH5	2005	Heavy shrub load, depth 4 to 6 feet. Spread rate very high; flame length very high.	0	0 %
	SH6	2005	Dense shrubs, little or no herb fuel, depth about 2 feet. Spread rate high; flame length high.	0	0 %
	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.	3,001	2 %
	SH8	2005	Dense shrubs, little or no herb fuel, depth about 3 feet. Spread rates high; flame length high.	681	0 %
	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.	0	0 %
1982 Fire Behavior Prediction System – ONLY USED FOR FLORIDA ASSESSMENT					
	FM4	1982	Chaparral	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.	2,145	1 %
	TU2	2005	Fuelbed is moderate litter load with shrub component. Spread rate moderate; flame length low.	505	0 %
	TU3	2005	Fuelbed is moderate litter load with grass and shrub components. Spread rate high; flame length moderate.	0	0 %
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.	147	0 %
	TL2	2005	Low load, compact. Spread rate very low; flame length very low.	928	1 %

Surface Fuel		FBPS Fuel Model Set	Description	Acres	Percent
	TL3	2005	Moderate load conifer litter. Spread rate very low; flame length low.	2,598	2 %
	TL4	2005	Moderate load, includes small diameter downed logs. Spread rate low; flame length low.	290	0 %
	TL5	2005	High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.	6	0 %
	TL6	2005	Moderate load, less compact. Spread rate moderate; flame length low.	56,406	34 %
	TL7	2005	Heavy load forest litter, includes larger diameter downed logs. Spread rate low; flame length low.	0	0 %
	TL8	2005	Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.	2,852	2 %
	TL9	2005	Very high load broadleaf litter; heavy needle-drape in otherwise sparse shrub layer. Spread rate moderate; flame length moderate.	35,511	22 %
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 %
	SB2	2005	Moderate load activity or low load blowdown. Spread rate moderate; flame length moderate.	0	0 %
	SB3	2005	High load activity fuel or moderate load blowdown. Spread rate high; flame length high.	0	0 %
			Total	164,663	100 %

Lincoln County Surface Fuels



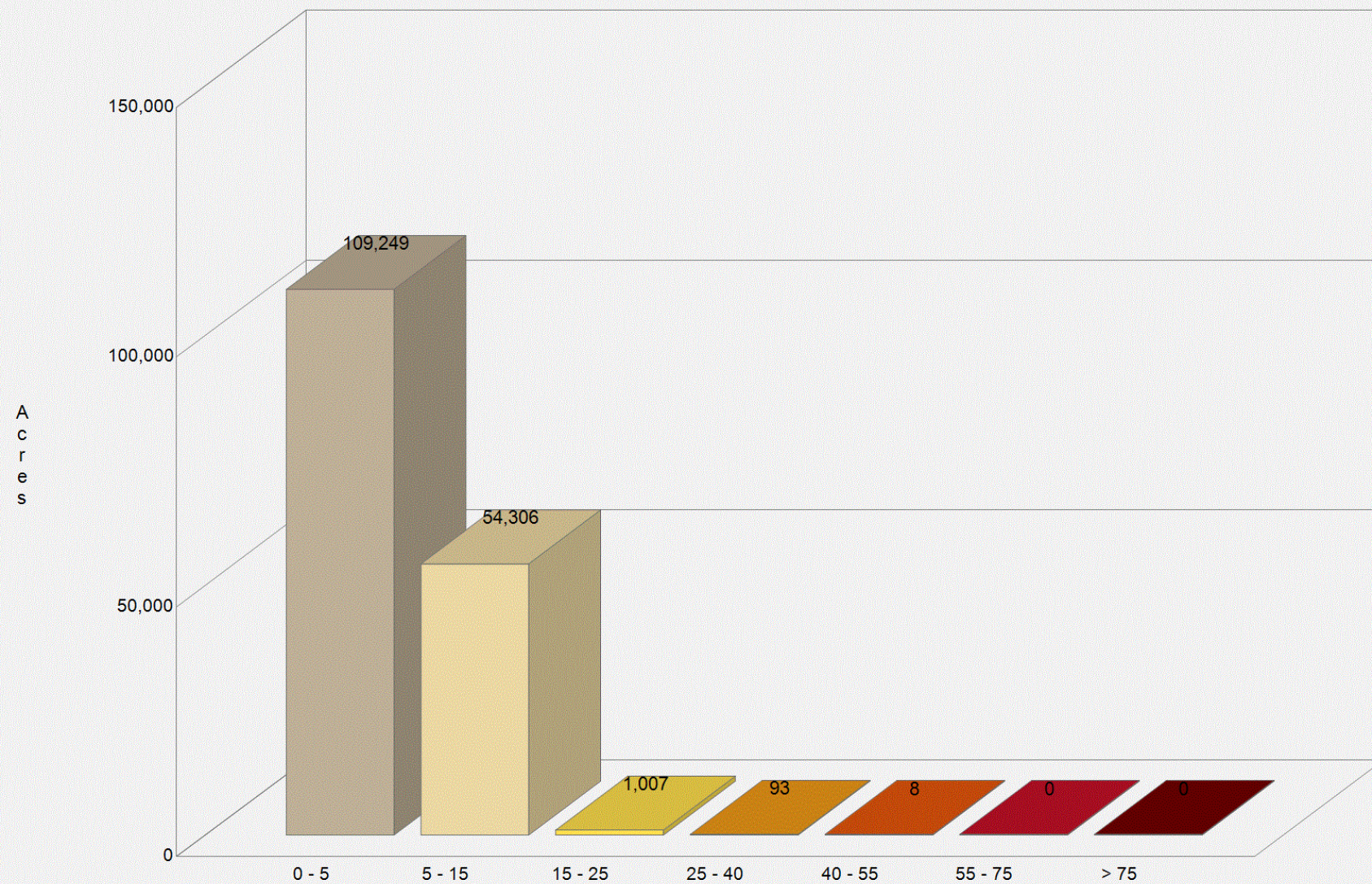
Percent Slope

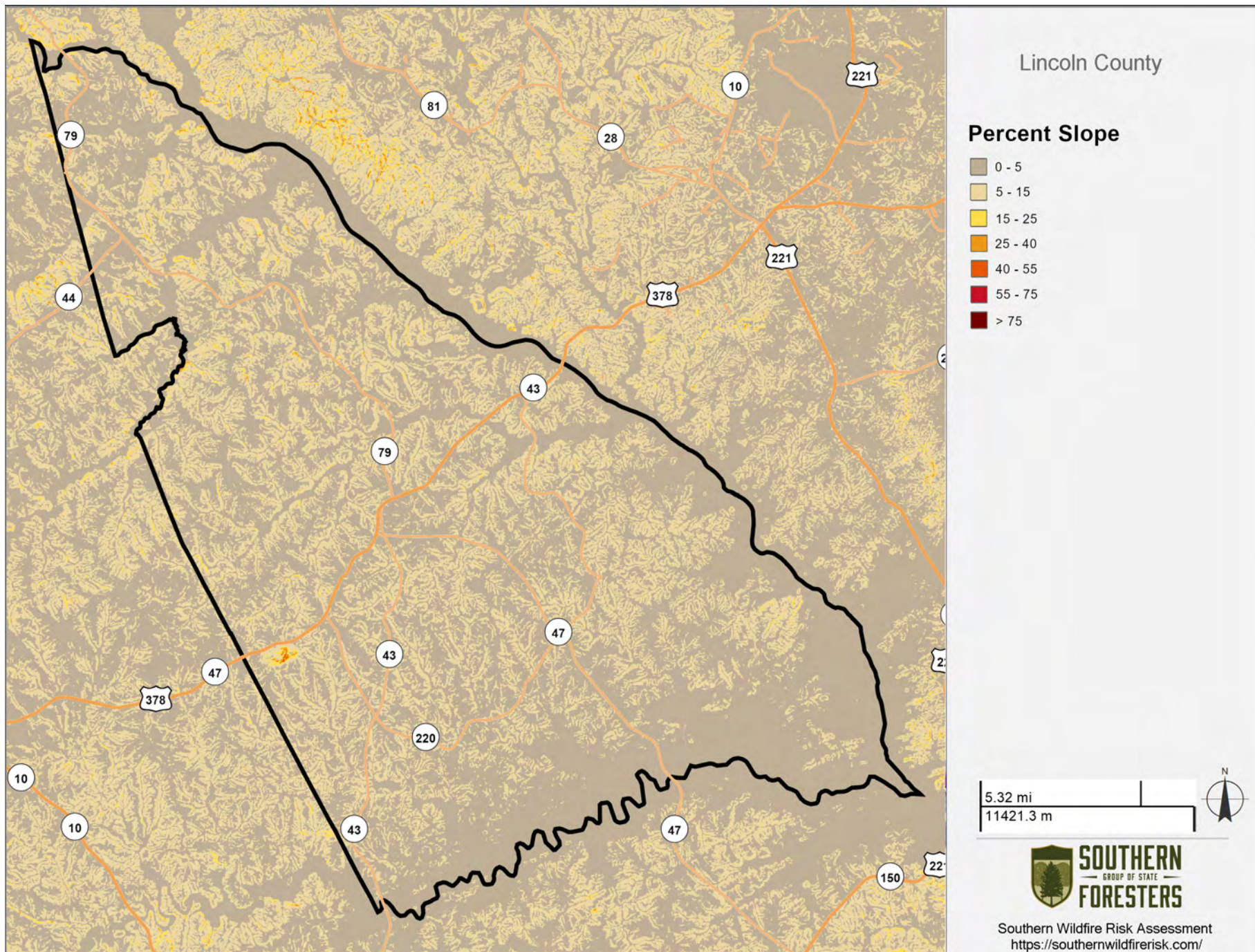
Percent Slope measures the rate of change of elevation over a given horizontal distance (rise over run), expressed as a percent. Percent slope is used to characterize the local conditions for operating equipment. Slope identifies the inclination at a single location based on the adjacent elevation values. 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	109,249	66 %
	5 - 15	54,306	33 %
	15 - 25	1,007	1 %
	25 - 40	93	0 %
	40 - 55	8	0 %
	55 - 75	0	0 %
	> 75	0	0 %
	Total	164,663	100 %

Lincoln County
Percent Slope





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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.

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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

GEMHSA Worksheet #3a**Inventory of Assets****Jurisdiction: Lincoln County Unincorporated****Hazard: Dam failure, Drought, Wildfire, Tornado, Tropical Storm, Severe weather, Winter Storm, and 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.**

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	12,070	12,070	100.000%	597,815,588	597,815,588	100.000%	5,850	5,850	100%
Commercial	373	373	100.000%	18,841,615	18,841,615	100.000%	5,850	5,850	100%
Industrial	27	27	100.000%	2,855,030	2,855,030	100.000%	1,017	1,017	100%
Agricultural	2,620	2,620	100.000%	278,549,440	278,549,440	100.000%	143	143	100%
Religious/ Non-profit	63	63	100.000%	15,456,683	15,456,683	100.000%	5,850	5,850	100%
Government	55	55	100.000%	409,800,790	409,800,790	100.000%	5,850	5,850	100%
Education	2	2	100.000%	2,255	2,255	100.000%	0	0	100%
Utilities	5	5	100.000%	26,325,213	26,325,213	100.000%	5,850	5,850	100%
Total	15,215	15,215	100.000%	1,349,646,614	1,349,646,614	100.000%	5,850	5,850	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 |

GEMHSA Worksheet #3a**Inventory of Assets****Jurisdiction: Lincoln County Unincorporated****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.

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	12,070	207	1.715%	597,815,588	10,252,513	1.715%	5,850	134	2%
Commercial	373	0	0.000%	18,841,615	0	0.000%	5,850	0	0%
Industrial	27	0	0.000%	2,855,030	0	0.000%	1,017	0	0%
Agricultural	2,620	20	0.763%	278,549,440	2,126,332	0.763%	143	0	0%
Religious/ Non-profit	63	0	0.000%	15,456,683	0	0.000%	5,850	0	0%
Government	55	0	0.000%	409,800,790	0	0.000%	5,850	0	0%
Education	2	0	0.000%	2,255	0	0.000%	0	0	0%
Utilities	5	0	0.000%	26,325,213	0	0.000%	5,850	0	0%
Total	15,215	227	1.492%	1,349,646,614	12,378,844	0.917%	5,850	134	2%

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 |

GEMHSA Worksheet #3a**Inventory of Assets****Jurisdiction: Lincoln County and the City of Lincoln****Hazard: Dam failure, Drought, Wildfire, Tornado, Tropical Storm, Severe weather, Winter Storm, and 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.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# 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	13,368	13,368	100.000%	675,047,938	675,047,938	100.000%	5,919	5,919	100%
Commercial	917	917	100.000%	47,238,000	47,238,000	100.000%	296	296	100%
Industrial	29	29	100.000%	3,082,170	3,082,170	100.000%	13	13	100%
Agricultural	2,660	2,660	100.000%	282,966,200	282,966,200	100.000%	180	180	100%
Religious/ Non-profit	84	84	100.000%	21,082,323	21,082,323	100.000%	37	37	100%
Government	88	88	100.000%	443,877,558	443,877,558	100.000%	39	39	100%
Education	3	3	100.000%	4,655	4,655	100.000%	1,239	1,239	100%
Utilities	8	8	100.000%	29,843,500	29,843,500	100.000%	3	3	100%
Total	17,157	17,157	100.000%	1,503,142,344	1,503,142,344	100.000%	7,726	7,726	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 |

GEMHSA Worksheet #3a**Inventory of Assets****Jurisdiction: Lincoln County and the City of Lincolnton****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.

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	13,368	209	1.563%	675,047,938	10,553,936	1.563%	5,919	134	100%
Commercial	917	0	0.000%	47,238,000	0	0.000%	296	0	100%
Industrial	29	0	0.000%	3,082,170	0	0.000%	13	0	100%
Agricultural	2,660	20	0.752%	282,966,200	2,127,565	0.752%	180	0	100%
Religious/ Non-profit	84	0	0.000%	21,082,323	0	0.000%	37	0	100%
Government	88	0	0.000%	443,877,558	0	0.000%	39	0	100%
Education	3	0	0.000%	4,655	0	0.000%	1,239	0	100%
Utilities	8	0	0.000%	29,843,500	0	0.000%	3	0	100%
Total	17,157	229	1.335%	1,503,142,344	12,681,502	0.844%	7,726	134	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 |

GEMHSA Worksheet #3a**Inventory of Assets****Jurisdiction: City of Lincoln****Hazard: Dam failure, Drought, Wildfire, Tornado, Tropical storm, 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.**

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	1,298	1,298	100.000%	77,232,350	77,232,350	100.000%	1,876	1,876	100%
Commercial	544	544	100.000%	28,396,385	28,396,385	100.000%	1,876	1,876	100%
Industrial	2	2	100.000%	227,140	227,140	100.000%	102	102	100%
Agricultural	40	40	100.000%	4,416,760	4,416,760	100.000%	7	7	100%
Religious/ Non-profit	21	21	100.000%	5,625,640	5,625,640	100.000%	1,876	1,876	100%
Government	33	33	100.000%	34,076,768	34,076,768	100.000%	1,876	1,876	100%
Education	1	1	100.000%	2,400	2,400	100.000%	0	0	100%
Utilities	3	3	100.000%	3,518,288	3,518,288	100.000%	1,876	1,876	100%
Total	1,942	1,942	100.000%	153,495,731	153,495,731	100.000%	1,876	1,876	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 |

GEMHSA Worksheet #3a
Jurisdiction: City of Lincoln
Hazard: Flood

Inventory of Assets

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.

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	1,298	2	0.154%	77,232,350	119,002	0.154%	1,876	0	100%
Commercial	544	0	0.000%	28,396,385	0	0.000%	1,876	0	100%
Industrial	2	0	0.000%	227,140	0	0.000%	102	0	100%
Agricultural	40	0	0.000%	4,416,760	0	0.000%	7	0	100%
Religious/ Non-profit	21	0	0.000%	5,625,640	0	0.000%	1,876	0	100%
Government	33	0	0.000%	34,076,768	0	0.000%	1,876	0	100%
Education	1	0	0.000%	2,400	0	0.000%	0	0	100%
Utilities	3	0	0.000%	3,518,288	0	0.000%	1,876	0	100%
Total	1,942	2	0.103%	153,495,731	119,002	0.078%	1,876	0	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 |

APPENDIX E

CORRESPONDENCE

Bonnie and Clyde and their famous Ford 'death car'

It was during the Great Depression, when in 1930, 19-year-old Bonnie Parker, a divorced, bright, attractive, struggling waitress met 20-year-old Clyde Champion Barrow, a dirt-poor petty thief who already had numerous run-ins with the law. It must have been love at first flight as the couple became inseparable in a love affair and crime

spree that would last until the morning of May 23, 1934 when 130 rounds fired by six Texas and Louisiana police officers ripped through the couple's '34 Ford V8, striking Clyde 17 times and Bonnie 26 times. Word of their death in Bienville Parrish, Louisiana dominated the news of the day as the exploits of the Barrow Gang had been closely followed by

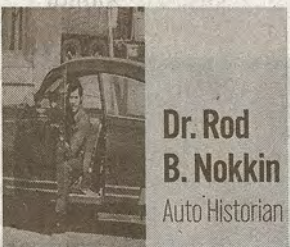
the press and a public eager to hear the riveting details of the daring robberies, narrow escapes, and multiple murders committed by this notorious yet morbidly fascinating gang. Pictures of the "death car" and the pair's mutilated bodies splashed across the front page of papers across the country ensuring that the legend of Bonnie and Clyde would endure

throughout the years. There is more to tell about Bonnie and Clyde and the Barrow Gang, a small, loosely knit band of friends and family members, than there is the space to tell it. Numerous books and movies have covered their daring escapades in detail. To some, they were folk heroes during hard times that required desperate measures

however, in reality, they were violent criminals plain and simple with Clyde being devoid of conscience or qualms about killing anyone who stood in his way. In all, the Barrow gang was responsible for at least 13 murders during their notorious crime spree.

Bonnie and Clyde's lives and time together is fascinating and well documented should you wish to investigate further, but for the present we're going to talk a bit about Clyde Barrow's favorite getaway car, the 1932-1934 Ford V8. Although the Fords may not be as exciting as were the exploits of Bonnie and Clyde, they played an integral part in the couples' misadventures.

1932 marked the introduction of the Ford 'flathead' V8, a design that would power Fords through 1953. It's notable that these were the first V8 engines ever to be mass produced. After arch-rival Chevrolet introduced a six cylinder powerplant to compete with Fords' four, Henry Ford ordered development of a new eight cylinder engine. When introduced, the 221 cubic inch eight developed 65 horsepower. This increased to 75 in 1933 and 85 horsepower in 1934. Ford kept costs



Dr. Rod B. Nokkin
Auto Historian

low and, with numerous body styles available, sales of the new V8 were brisk, approaching 300,000 in 1932.

Minimal styling changes were made over the next two years while the engine was improved and sales continued to flourish. Baby Face Nelson and John Dillinger favored these Fords and Clyde Barrow, a man who could steal any car of his choosing, made the V8 his pick for rapid transportation when eluding the authorities.

What made Ford V8's the choice of discriminating gangsters? They were rugged, dependable and suitably quick with a top speed of 65-70 miles per hour while able to accelerate to 60mph in the neighborhood of 18 seconds. At the time, their performance was more than ample. All in all, these sturdy cars handled well and, combined with their performance and durability, the Ford V8 was a natural for the grueling usage demanded by desperadoes of the day.

In a letter displayed at the Henry Ford Museum written by Clyde Barrow to Henry Ford in April of 1934, Clyde praised the "dandy" Fords that he stole and drove "exclusively." Clyde noted that "for sustained speed and freedom from trouble, the Ford has got every other car skinned." A glowing endorsement indeed from a man who drove his cars vigorously and depended upon their speed and stamina to excel in his chosen line of work.

You may wonder where the "death car" is today. The '34 Ford Fordor Deluxe, stolen from Jesse and Ruth Warren of Topeka Kansas, was exhibited across the country after the deaths of Bonnie and Clyde, was sold and resold several times and today resides, original and unrestored, at Whiskey Pete's Hotel and Casino in Primm, Nevada, where its' macabre allure has not diminished over the past 90 years.

TEXAS OFFICERS TRAP AND KILL CLYDE BARROW AND BONNIE PARKER

Outlaw, Supposed Woman Aid and Ranger Who Trapped Them

OUTLAW'S AUTO RUNS INTO AMBUSH IN LOUISIANA

Pair Are Riddled With Bullets on Highway Near Black Lake Before Their Machine Runs Into Embankment.

WAITED TWO MONTHS FOR DESPERADOES

Former Ranger Directs Pursuit and Attack—Fugitives, Weapons in Their Hands, Unable to Fire a Shot.

By the Associated Press. BLACK LAKE, La., May 23.—Clyde Barrow, the Southwest's No. 1 outlaw, and his gunwoman companion, Bonnie Parker, were trapped and shot dead by Texas and Louisiana officers near here today.

Disregarding a command to halt and unable to get their weapons into play, the desperado and his cigar-smoking companion crumpled up in the front seat of a speeding car. The car careened into an embankment and was wrecked. In the wreckage the officers who

Ex-Ranger Tells How He Ran Down Clyde Barrow

'Shot Devil' Out of Him and Woman Companion, Frank Hamer Says Relating Success of Six-Month Hunt.

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Public Meeting

Lincoln County Hazard Mitigation Plan Update

Lincoln County will begin the five-year update of their Hazard Mitigation Plan. As part of the planning process, Lincoln County is holding a public kick-off meeting on January 29, 2025 at 3:00 PM at the Office of Emergency Services, 1056 Global Drive, Lincolnton, GA. 30817. The purpose of the meeting is to allow citizens of Lincoln County an opportunity to provide input into the update of the plan. Civic organizations, local businesses, and citizens of Lincoln County, as well as the City of Lincolnton are encouraged to attend. Please contact Lincoln County EMA Director Casey Broom at 706-359-4855 if you have any questions.

Lincoln 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 should contact Sherry McKellar, County Clerk prior to January 29, 2025 at (706) 359-4444. This person is located at the Lincoln County Board of Commissioner's Office, 210 Humphrey Street, Lincolnton, GA between the hours of 9:00 am - 4:00 pm, Monday through Friday, except holidays. Persons with hearing disabilities can contact Lincoln County at the above number or use the Georgia Relay Service at TDD 1-800-255-0056 or Voice 1-800-255-0135.

LAKESIDE GRILL

@

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193 YACHT CLUB DRIVE
PLUM BRANCH, SC 29845
864-443-3000

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SATURDAY 12-9PM
SUNDAY 12-4PM

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Also, be sure to send us your events and we'll help you get the word out!

.....

Email us at
editor@
thejournal
messenger.com.

From: [April Young](#)
Bcc: jbrown@mccormickcountysc.org; emergencymanagement@columbiacountyga.gov; stephen.sewell@thomson-mcduffie.gov; dwright@wilkescountyems.com; ahulme@elbertga.us; rmize@ecfire.org; rick@ecfire.org
Subject: Lincoln County Pre-disaster Mitigation Update
Date: Tuesday, January 14, 2025 10:54:00 AM
Attachments: [image001.png](#)

Hello,

Lincoln County has received a grant from FEMA to update their Pre-Disaster Mitigation Plan (PDM). The plan is required to be updated every five years. One of the plan's requirements is to invite neighboring communities to provide input into the planning process. The Lincoln County PDM Committee would like to extend an invitation to your agency to participate. Lincoln County is holding a public meeting on January 29, 2025 at 3:00 pm at the Lincoln County EMA Building, 1056 Global Drive, Lincolnton, GA 30817. Please contact me if you have any questions.

April Young
Regional Planner

Community Development

CSRA Regional Commission
3626 Walton Way Ext, Suite 1
Augusta, GA 30909

tel. 706-210-2000 | fax 706-210-2006



Thirteen Counties, One Region



Public Meeting

Lincoln County Pre-Disaster Plan

Kickoff Meeting

January 29 @ 3:00 P.M.

**Lincoln County Office
of Emergency Services
1056 Global Drive**

Lincoln County will begin work on the five-year update of their Pre-Disaster Hazard Mitigation Plan of 2025. You're invited to provide input into the plan before it is submitted to the Georgia Emergency Management Agency (GEMA) and the Federal Emergency Management Agency (FEMA) for approval.

Call Lincoln Co. EMA @ 706-359-4855 for more info.

Persons with special needs relating to handicapped accessibility or foreign language shall contact County Clerk, Sherry McKeller at 706-359-4444 before 1/29/25.

AGENDA

Lincoln County Pre-Disaster Mitigation Meeting January 29, 2025 3:00 PM

1. Introductions and Welcome by Casey Broom, Director/Chief Lincoln County Office of Emergency Services

2. Overview by April Young, CSRA Regional Commission
 - a. Plan Overview
 - b. Role of Planning Team
 - c. Critical Facilities
 - d. Timeframe
 - e. Next Steps
 - f. In-kind contribution forms.

3. Next meeting TBA

Contact:
CSRA Regional Commission
April Young
706-210-2022
ayoung@csrarc.ga.gov

LINCOLN COUNTY PDM KICKOFF MEETING
THURSDAY, JANUARY 29 @ 3:00 P.M.

NAME	ORGANIZATION	EMAIL
Delaney Dill	Lincoln County Leisure Services	ddill@lincolncountyga.gov
Stephanie Eichen	Lincoln Cty Comm. Develop	Steichen@Lincolncountyga.gov
Walker T. Norman	Lincoln County BOC	WNORMAN@LINCOLNCOUNTYGA.GOV
Matthew Goldman	City of Lincolnton Fire Dept.	Matthewlee.goldman@gmail.com
Wanda Duncan	LCOES	wduncan@lincolncountyga.gov
Timmy Thain	LCOES	tthain@AugustaGA.gov
Robert Cobb	LCOES	rcobb@lincolncountyga.gov
Ernest Doss	Lincoln Co. BOC	Edoss@LincolnCountyGA.GOV
Jason Brown	McCormick County EM	jbrown@mccormickcountycc.org
Casey Broom	Lincoln County EMA	cbroom@lincolncountyga.gov

Lincoln County 07/05/2025

email

Kparton@lincolncountyga.gov

rseymour@lincolncountyga.gov

chroom@lincolncountyga.gov

W. Norman @ Lincoln County GA.
Gov

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

NAME	NAME
Suzanne Bensavage	Leah B TUTT
Marcia Sherrod	Sue-Beth Bowman
CURTIS GRAVES	Myrtle Belongia
Janet Parks	Carol Johnson
Barbara Frances Deason	Sharon Gonzales
Maureen Green	Louise Smith
Jan Smalley	Frances Bellas
Linda Weicians	Sharon Tuttt
Amy Jones	Sarah Charles
Virginia Tuttt Williams	Linda Hill
Burch L. Mercier	Mattie White

NAME	NAME
Ernestine Davis	
Carl Commissiong	
Salivie Thompson	
Deborah Fullum	
Grenada Leopard	
Marie Murray	

Delaney Dill

Lincoln Co Haz Mit meetg
Sept. 24th

Robert Seymour

Walker T. Norman

Trula McCulloch

ERNE DOSS

Clay Smith

Cassy Brown