HAZARD MITIGATION PLAN

SUMTER COUNTY, ALABAMA

The Alabama Tombigbee Regional Commission prepared this plan with guidance from the Sumter County Emergency Management Agency and the Sumter County Natural Hazards Steering Committee.

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Summary of Changes Made in Plan Update
Section I. The Hazard Mitigation Plan

The first section of the plan gives a basic overview of the need and purpose of a Hazard Mitigation Plan. For the update, the Sumter County EMA and the Alabama Tombigbee Regional Commission reviewed this section before potential changes were presented at the committee meeting. Only a minimal amount changes were needed. Section C (Funding) was revised by the Alabama Tombigbee Regional Commission to reflect funding for this update process. Section F (Multijurisdictional Planning Participation) was also revised to be more user friendly in the identification of participants. Sumter County Opportunity, Inc., Sumter County Sewer Authority, North Sumter Citizens for a Better Government, and North Sumter Development Corporation were added participating entities. Sections A (Sumter County Natural Hazards Mitigation Plan), B (Authority), D (Scope), and E (Purpose) were not revised. The information contained in these sections is general information and has not changed. The hazard steering committee approved all changes prior to the final revision of the plan.

I. THE HAZARD MITIGATION PLAN

A. SUMTER COUNTY HAZARD MITIGATION PLAN

The Natural Hazards Mitigation Plan for Sumter County, Alabama is a multi-jurisdictional, multi-hazard mitigation plan. This plan fulfills the requirements set forth by the Federal Disaster Mitigation Act of 2000 (DMA 2000). It meets all eligibility requirements set forth by the Federal Emergency Management Agency (FEMA) for grant assistance. This plan covers the entire county including all unincorporated areas and the municipalities of Cuba, Emelle, Epes, Gainseville, Geiger, York and Livingston. It also covers the Sumter County Board of Education, University of West Alabama, Sumter County Opportunity, Inc., Sumter County Sewer Authority, North Sumter Citizens for a Better Government, North Sumter Development Corporation, and Sumter County Water Authority.

B. AUTHORITY

Section 409 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (public Law 93-228, as amended), Title 44 Code of Federal Regulations, as amended by Part 201 of the Disaster Mitigation Act of 2000 requires that all state and local governments develop a Hazard Mitigation Plan as a condition of receiving federal disaster assistance.

C. FUNDING

Funding was received from the Hazard Mitigation Grant Program to update the Natural Hazards Mitigation Plan for Sumter County, Alabama. The Sumter County Commission received grant monies, and contracted with the Alabama Tombigbee Regional Commission to facilitate the planning process.

D. SCOPE

The Natural Hazards Mitigation Plan for Sumter County, Alabama includes all incorporated and unincorporated areas in Sumter County as well as the Sumter County Board of Education, University of West Alabama, Sumter County Opportunity, Inc., Sumter County Sewer Authority, North Sumter Citizens for a Better Government, North Sumter Development Corporation, and Sumter County Water Authority. The plan addresses all natural hazards identified by the Federal Emergency Management Agency. All hazards that may affect Sumter County and its residents are identified. Hazard mitigation strategies are discussed in terms of short term and long-term goals. Responsibility for implementation of strategies is discussed and possible funding sources are identified.

E. PURPOSE

"Mitigation is the cornerstone of emergency management. It's the ongoing effort to lessen the impact disasters have on people's lives and property through damage prevention and flood insurance (http://www.fema.gov/fima/)." The Natural Hazards Mitigation Plan for Sumter County, Alabama is an effort to evaluate and identify all natural hazards, which may affect Sumter County. It presents mitigation strategies that address each hazard identified. This plan is only one of many steps Sumter County will take to achieve a safer, more hazard resistant environment for its residents.

F. MULTI-JURISDICTIONAL PLANNING PARTICIPATION

All eight jurisdictions in Sumter County participated in the plan update. These jurisdictions are Sumter County, Town of Cuba, Town of Emelle, Town of Epes, Town of Gainesville, Town of Geiger, City of York, and City of Livingston. The Sumter County Board of Education, University of West Alabama, Sumter County Opportunity, Inc., Sumter County Sewer Authority, North Sumter Citizens for a Better Government, North Sumter Development Corporation, and Sumter County Water Authority also participated. Participation included completing hazard questionnaires, supplying information on critical facilities, and providing project lists. Each jurisdiction/entity will also formally adopt the plan once an approvable letter is received from FEMA.

Table 1.1 Sumter County Hazard Mitigation Plan Participants

Towns	Cities	Agencies	Education	Non-Profit Community Groups
Cuba	Livingston	Sumter County Commission	Sumter County School System	North Sumter Citizens for a Better Government*
Emelle	York	Sumter County Water Authority	University of West Alabama	North Sumter Development Corporation*
Epes		Sumter County Sewer Authority*	Sumter County Opportunity, Inc.*	
Gainesville				
Geiger				

* New participant

Table developed by the Alabama Tombigbee Regional Commission from local information
April 3, 2015

Summary of Changes Made in Plan Update
Section II. Planning Process

The planning process section of this plan addresses requirement §201.6(c) (1) by providing documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

This section contains a variety of organizational and basic information that deals with the update process. Committee and stakeholders lists were updated to reflect current information. The participating jurisdiction section was added to provide more detail on how each jurisdiction participated. Appendix 1 was added to the plan to document the planning process through meeting notices, sign in sheets, meeting notes, mailing lists, and general correspondence. This appendix is referred to during the discussion of the process in this section. A section containing synopses of the changes made to each section was also added. The section on existing plans was also reviewed and updated. All revisions / updates were approved by the Natural Hazards Steering Committee and Local Government Subcommittee.

II. THE PLANNING PROCESS

A. THE HAZARD MITIGATION STEERING COMMITTEE

The Sumter County Natural Hazards Mitigation Plan was updated during the fall of 2014 and winter of 2015. The Alabama Tombigbee Regional Commission worked with the Sumter County Emergency Management Agency and Natural Hazards Steering Committee to develop the plan. The plan was developed with the guidance of the Natural Hazards Steering Committee. This committee was established in 2004 to develop the original plan. The purpose of the committee is to ensure the interests and concerns of everyone in Sumter County are addressed. The committee was re-evaluated for the update and new appointees were chosen for the entire five-year planning cycle.

The committee was charged with the following task:

To develop and oversee a comprehensive natural hazard mitigation planning process that:

- Engages public participation and support,
- Facilitates federal, state, regional, and local agencies' coordination,
- Constantly monitors and evaluates the potential risks of hazards to life and property
- Actively mobilizes all available community resources and measures to mitigate the threats of hazards,
- Results in programmed actions with specific results.

The Sumter County EMA Director, Margaret Bishop-Gulley, chose to use the same participation requirements for the Natural Hazards Steering Committee that were in place. Each member had to fulfill these requirements. Each member of the committee was notified of these requirements verbally. All members stated they understood the requirements. The requirements are as follows:

- Members, or their representative, are encouraged to attend committee meetings or notify ATRC to receive materials and worksheets from the meeting missed
- Information requested must be submitted within the specified time frame for that material
- Full cooperation (working together, striving to resolve conflicts, showing respect) between municipalities, Sumter County EMA, and Alabama Tombigbee Regional Commission throughout the entire planning process.

The following entities chose to appoint a representative to the committee:

- Sumter EMA: Margaret Bishop-Gully, Director, Committee Chair
- Sumter County Water Authority: Dexter Arrington, Manager
- University of West Alabama: Larry Boshell, Director-UWA Office of Emergency Preparedness
- Sumter County Board of Education: Katie Jones-Powell, Superintendent
- Sumter County Opportunity, Inc.: Israel Moore, Payroll and Accounting Clerk
- Sumter County Commission / Road and Bridge Department: Anthony Crear, Engineer
- Town of Cuba:Carl Storey, Mayor
- Town of Emelle: Roy Willingham, Mayor
- Town of Epes: Walter Porter, Mayor
- Town of Gainesville: Carrie Fulghum, Mayor
- Town of Geiger: Michael Cunningham, Mayor
- City of Livingston: Terry Peeler, Fire Chief

- City of York: Brian Harris, Police Chief
- Sumter County Sewer Authority: James Todd, Secretary/Treasurer
- North Sumter Development Authority: Carrie Fulghum, Member
- North Sumter Citizens for Better Government: Bessie Stanton, Secretary

Committee members provided input on the following topics:

- review of hazard information,
- review of existing plans,
- revisions to critical facilities inventory,
- revisions to critical facility values,
- revisions to goals, objectives, and possible projects;
- revisions to plan maintenance guidelines.

The majority of correspondence regarding the Natural Hazards Steering Committee took place via phone, fax, and mail. The committee met on October 27, 2014 in the Sumter County Commission Chambers to discuss the county's plan. The sign in sheet for this meeting is included in Appendix 1. This meeting was used as a forum for all in attendance to ask any questions, make any suggestions, and review information contained in the plan.

Mrs. Bishop-Gulley also met with all committee members who were unable to attend the first committee meeting on January 29, 2015. She hand delivered materials to these members. The plan update was reviewed with each participant. Each participant was also asked to review their specific information. The representative was also asked to sign off on the information provided (Appendix #1).

Table 2.1 provides a summary of committee activity.

Table 2.1 Natural Hazards Steering Committee Participation

Jurisdiction	Participant	Attended Committee Meetings	Met with EMA on 1/29/2015	Provided Information via Mail/Email	Provided Information via Fax	Provided Information via Phone	Reviewed Draft Plan
Sumter County Commission	X	X					X
Town of Cuba	X		X				X
Town of Emelle	X			X			X
Town of Epes	X		X				X
Town of Gainesville	X		X		X		X
Town of Geiger	X		X		X		X
City of Livingston	X			X			X
City of York	X	X					X
University of West Alabama	X	X					X
Sumter County Board of Education	X		X				X
Sumter County Opportunity, Inc	X		X				X
Sumter County Water Authority	X	X					X
Sumter County Sewer Authority	X			X			X
North Sumter Development	X			X			X
North Sumter Citizens for a Better Government	X			X			X

Table developed by the Alabama Tombigbee Regional Commission from local information
May 5, 2015

B. INTERAGENCY AND INTERGOVERNMENTAL COORDINATION

A wide range of state, regional, county, and local entities were contacted regarding the update process. Information was requested from many. Many were contacted as stakeholders. Table 2.2 provides a listing of everyone invited to participate and the extent to which they did.

Table 2.2 Interagency and Intergovernmental Coordination

Entity	Natural Hazards Committee	Contacted As Stakeholder	Attended Meetings	Provided Information	Reviewed Draft	Did Not Participate
Sumter County EMA, Director	X		X	X (hazard information)	X	
Sumter County Department of Human Resources, Director		X				X
Sumter County School System, Superintendent	X			X (critical facility information, projects, goals/objectives)	X	
Sumter County Opportunity, Inc., Director	X			X (critical facility information, projects, goals/objectives)	X	
North Sumter Development Corporation, Chairman	X			X (critical facility information, projects, goals/objectives)		
North Sumter Citizens for a Better Government, Chairman	X			X (critical facility information, projects, goals/objectives)		
Sumter County Commission/Road and Bridge Department, Engineer	X		X	X (critical facility information, projects, goals/objectives, flash flooding info)	X	
Alabama Forestry Commission-Sumter County, Forester		X		X (wildfire statistics)	X	

Table 2.2 Interagency and Intergovernmental Coordination (Continued from Page 8)

Entity	Natural Hazards Committee	Contacted As Stakeholder	Attended Meetings	Provided Information	Reviewed Draft	Did Not Participate
Town of Cuba, Mayor	X			X (critical facility information, projects, goals/objectives)	X	
Town of Emelle, Mayor	X			X (critical facility information, projects, goals/objectives)	X	
Town of Epes, Mayor	X			X (critical facility information, projects, goals/objectives)	X	
Town of Geiger, Mayor	X			X (critical facility information, projects, goals/objectives)	X	
Town of Gainesville, Mayor	X			X (critical facility information, projects, goals/objectives)	X	
City of Livingston, Mayor	X			X (critical facility information, projects, goals/objectives)	X	
City of York, Mayor	X		X	X (critical facility information, projects, goals/objectives)	X	
National Weather Service, Preparedness Office		X		X (past occurrence data)	X	
University of West Alabama, President	X		X	X (critical facility information, projects, goals/objectives, Lake LU plan)	X	

Table 2.2 Interagency and Intergovernmental Coordination (Continued from Page 9)

Entity	Natural Hazards Committee	Contacted As Stakeholder	Attended Meetings	Provided Information	Reviewed Draft	Did Not Participate
Chemical Waste Management, Supervisor		X		X (Emergency Plan)	X	
Community Service Programs of West Alabama, Director		X				X
West Alabama Chapter of the American Red Cross, Director		X				X
Alabama Department of Environmental Management, Director		X				X
Alabama National Guard, Public Affairs Officer		X				X
Alabama Natural Resources Conservation Service, Director		X				X
Natural Resources Conservation Service		X				X
Department of the Army- Corps of Engineers, Director		X		X (dam information)		
Lauderdale County, MS, County Administrator		X				X
Kemper County, MS, County Administrator		X				X
Choctaw County, AL, County Administrator						
Greene County, AL, County Administrator		X				X
Marengo County, AL, County Administrator		X				X
Pickens County, AL, County Administrator		X				X

Table developed by the Alabama Tombigbee Regional Commission from local information
May 5, 2015

A copy of the mailing list and notification letters used during the update is included in Appendix 1.

C. PUBLIC INVOLVEMENT

An important aspect of the planning process is involving the public at every step. Sumter County EMA and ATRC took steps to involve the public at every juncture. The meeting held October 27th was also advertised as a public meeting. Meeting notices were posted throughout the county and an advertisement was placed in the local newspaper (Appendix #1). The purpose of the meeting was to introduce the mitigation planning process and give the public an opportunity to participate in the update of the plan. Each jurisdiction will also hold a public hearing prior to their adoption of the plan. These meetings will be held in conjunction with the council/commission meetings where the plan is adopted. Participating jurisdictions will adopt the plan once an approvable letter is received from FEMA.

No members of the general public attended the October 27th meeting. If members of the public had attended, their opinions and ideas regarding the hazard mitigation information presented would have been recorded and incorporated into the plan.

The North Sumter Development Authority and the North Sumter Citizens' for a Better Government are both community based citizens 501 (c)3 organizations that participated in the planning process. These two groups represent citizens in the northern part of the county.

During the next plan update, the county will expand its public outreach. The EMA will incorporate informational meetings with senior centers, the volunteer firefighter's association, and other public groups into the process. Advertisements and postings for meetings will clearly encourage public participation. The county will also use social media to promote meetings. Survey Monkey or an equivalent online survey website will be used to gather public opinion on hazard issues. Special attention will be given to encouraging neighboring counties (Choctaw, Marengo, Pickens, and Greene in Alabama; Kemper and Lauderdale in Mississippi) to participate. EMA will contact them directly to solicit their participation.

The plan was available for review and comment online at atrcregion6.org.

D. PARTICIPATING JURISDICTIONS

All jurisdictions within Sumter County have participated in the planning process and will adopt the final plan by formal resolution. The school system, head start program, sewer authority, water authority and two citizens groups have also participated and will adopt the plan. Participating entities and the extent of their participation are as follows:

- Sumter County Commission: Reviewed jurisdiction specific information and confirmed no changes, reviewed draft plan
- Town of Cuba: Reviewed jurisdiction specific information and provided updates, reviewed draft plan
- Town of Epes: : Reviewed jurisdiction specific information and made minimal changes, reviewed draft plan
- Town of Emelle: Reviewed jurisdiction specific information and confirmed no changes, reviewed draft plan

- Town of Gainesville: Reviewed jurisdiction specific information and submitted changes, reviewed draft plan
- Town of Geiger: Reviewed jurisdiction specific information and submitted changes, reviewed draft plan
- City of Livingston: Reviewed jurisdiction specific information and submitted changes, reviewed draft plan
- City of York: Reviewed jurisdiction specific information and submitted changes, attended committee meeting, reviewed draft plan
- Sumter County Board of Education: Reviewed system specific information, reviewed draft
- Sumter County Opportunity, Inc.: Provided information, reviewed draft plan
- Sumter County Water Authority: Reviewed jurisdiction specific information and submitted changes, attended committee meeting, reviewed draft plan
- Sumter County Sewer Authority: Provided information, reviewed draft plan
- University of West Alabama: Reviewed jurisdiction specific information and submitted changes, attended committee meeting, reviewed draft plan
- North Sumter Development Association: Provided information, reviewed draft plan
- North Sumter Citizens for a Better Government: Provided information, reviewed draft plan

E. UPDATE PROCESS

The update process began with a full review of the existing Hazard Mitigation Plan for Sumter County, Alabama by the staff of the Alabama Tombigbee Regional Commission and Sumter County EMA. The two agencies began by identifying all areas where there were known additions, revisions, and deletions. A list was compiled by the Alabama Tombigbee Regional Commission to use as a resource during the compilation of the update, but every section was reevaluated regardless if initial revisions were identified. All revisions/updates were reviewed approved by the Sumter County Hazard Mitigation Steering Committee.

Each section was reviewed as follows:

- The Hazard Mitigation Plan: The Hazard Mitigation Plan section of the plan was revised prior to the committee meeting. Section C (Funding) was revised by the Alabama Tombigbee Regional Commission to reflect funding for this update process. Section F (Multijurisdictional Planning Participation) was also revised to be more user friendly in the identification of participants. Sections A (Sumter County Natural Hazards Mitigation Plan), B (Authority), D (Scope), and E (Purpose) were not revised. The information contained in these sections is general information and has not changed. All updates and changes were approved by the Natural Hazards Steering Committee.
- Planning Process: The Planning Process was updated after the committee meeting and individual meetings with participants were held and the remainder of the plan had been revised. The planning process section was extensively revised by the Alabama Tombigbee Regional Commission (ATRC). Committee and stakeholders lists were updated to reflect current information. The participating jurisdiction section was to add more detail on how each jurisdiction participated. Appendix 1 was added to the plan to document the planning process through meeting notices, sign in sheets, meeting notes, mailing lists, and general correspondence. This appendix is referred to during the discussion of the process in this section. A section containing synopses of the changes made to each section was also added.

The section on existing plans was also reviewed and updated. All updates and changes were approved by the Natural Hazards Steering Committee.

- v County Profile: The Alabama Tombigbee Regional Commission reviewed and updated this the County Profile prior to the committee meeting. Section A (Geology) was not updated, due to the nature of geology. In Section B (Transportation), traffic counts were updated to reflect the latest information from the Alabama Department of Transportation. Section C (Economy) was revised to provide a narrative description of the county's economy. There were no revisions to Section D (Utilities) and Section E (Media). Section F (Social and Economic Characteristics) was revised to incorporate data from the American Community Survey. All updates and changes were approved by the Natural Hazards Steering Committee.
- v Risk Assessment: The Risk Assessment section was initially reviewed and updated prior to the committee meeting. ATRC reviewed each hazard and researched to find any additional information that could help determine risk. Past occurrences were updated using the Storm Events Database and probabilities were recalculated. The Risk Assessment was reviewed at the committee meeting and attendees were asked to provide feedback. Attendees provided feedback on additional occurrences of many hazards. All updates and changes were approved by the Natural Hazards Steering Committee.
- v Assessing Vulnerability: Sections A-D were revised prior to the committee meeting. Section A (Overview of Hazard Vulnerability and Impact) was revised to include additional information on dams. Updated American Community Survey information was used to identify affected populations (Section B) and socially vulnerable populations (Section C). HAZUS-MH was used to get updated building stock numbers for Section D. Sections A-D were reviewed at the committee meeting, no attendee had any suggestions or changes. Section E (Identification of Critical Facilities) was reviewed also and participants were asked to identify additional facilities. For Sections F (Critical Facilities by Jurisdiction) and G (Future Critical Facilities), participating jurisdictions were given their critical facility information from the current plan and asked to update it and resubmit it. Section H was compiled once all data was received back from participating jurisdictions. Section I was revised prior to the committee meeting to reflect more up to date population projections and was reviewed with the attendees. All updates and changes were approved by the Natural Hazards Steering Committee.
- v Ongoing Mitigation Assessment: This section had numerous revisions, this section was previously titled Capability Assessment. A new section Existing Authorities, Policies, Programs, and Resources by Jurisdiction was added to detail capabilities by jurisdiction. Capabilities were determined by talking with each jurisdiction via phone calls. The information on the Sumter County EMA was moved to Section B. All updates and changes were approved by the Natural Hazards Steering Committee.
- v Mitigation Goals, Objectives, and Actions by Jurisdiction: Each participating jurisdiction received their information from the previous plan before the committee meeting. Jurisdictions with no one present at the meeting were contacted directly on January 29, 2015. Each jurisdiction reviewed their information and either confirmed there were no revisions or submitted changes. New participants were asked to identify critical facilities; prioritize hazards; and identify goals, objectives, and strategies. All updates and changes were approved by the Natural Hazards Steering Committee.
- v Plan Maintenance: The plan maintenance section was reviewed by ATRC and the Sumter County EMA. Additional entities were added to the Hazard Mitigation Committee Structures at the request of the EMA. The Incorporation in to Existing Planning Mechanisms section

was also revised to provide information by jurisdiction. All updates and changes were approved by the Natural Hazards Steering Committee.

As noted above, the update process consisted of one Natural Hazards Steering Committee meeting held on October 27, 2014 in the Sumter County Commission Chambers this meeting was also a public involvement meeting. EMA Director Margaret Bishop-Gulley also met with each participating jurisdiction that was not present at the committee meeting on January 29, 2015. All other correspondence took place via phone, fax, and email (Appendix #1).

The draft plan was available for review and comment on ATRC's website, atrcregion6.org. No comments were received on the draft plan.

F. INTEGRATION WITH EXISTING PLANS

Throughout the update process those who participated in the planning process identified many plans. Some of these plans were the same plans consulted in the original plan, but had been updated recently. These plans were consulted for various types of information. The Alabama Tombigbee Regional Commission reviewed these documents and incorporated them as deemed necessary. All sources of information are cited throughout the plan. These include:

- The Sumter County Emergency Operations Plan: Information on hazards and local capacity was incorporated into the Risk Assessment and Vulnerability Assessment.
- Threats and Hazards and Risk Assessment for Sumter County (THIRA): Information on natural and technological hazards was incorporated into the Risk Assessment.
- NOAA and NWS records: Data from NOAA and NWS was used in the Risk Assessment, Past Occurrences, and Probability of Future Occurrences sections.
- Flood Insurance Rate Maps: Flood maps were consulted to help identify areas in flood plains in the Risk Assessment.
- A Strategic Plan for the Alabama Tombigbee Region: This plan was reviewed to ensure mitigation goals and strategies did not conflict.
- Alabama State Data Center Estimates and Projections: Population projection data was incorporated into the Analyzing Development Trends section to illustrate the county's declining population.
- State of Alabama: State Hazard Mitigation Plan Update: Hazard information specific to Sumter County was incorporated into the Risk Assessment section of the plan.
- United States Census Bureau American Community Survey: Socio economic information was incorporated into the County Profile section.
- I-20/50 Corridor Study: Tuscaloosa, Alabama to Mississippi: Information on Sumter County was used in the County Profile section.
- Assessment Report: Lake L.U. Livingston, Alabama: Information from this plan was used in the dam failure portion of the plan and the Assessing Vulnerability section.
- Sumter County, Alabama Soil Survey: Soils information was incorporated into the Risk Assessment.

- Maps from Cartographic Research Laboratory, The University of Alabama: Maps were used throughout the County Profile and Risk Assessment sections to better illustrate physical characteristics of the county.
- Geologic Hazards Information the Geologic Survey of Alabama: Information regarding earthquakes, sinkholes, and landslides in Sumter County was taken from this site and used in the Risk Assessment. (http://www.gsa.state.al.us)
- Geologic Hazard Information from the United States Geological Survey: Information regarding earthquake risk was taken from this site and used in the Risk Assessment to better determine the county's risk. (http://www.usgs.gov)
- Hazard Information from National Oceanic and Atmospheric Administration: Information on lightning, thunderstorms, high winds, tornadoes, extreme temperatures, flooding, and winter storms was incorporated into the Risk Assessment and Vulnerability Assessment sections to help determine risk. (http://www.aoml.noaa.gov)
- Hazard Information: Information on land subsidence was used to help determine the county's susceptibility. (http://www.hazardmaps.gov)
- Landslide Information: Landslide susceptibility and occurrence was used to help evaluate the county's risk. (http://www.nhoem.state.nh.us/mitigation/fig%203-17.htm)
- Hazard Information from Federal Emergency Management Agency: Information on tornadoes, dam failure, and flooding was incorporated and used to help determine the county's susceptibility. (http://www.fema.gov)
- Wildfire Information: Southern Wildfire Risk Assessment Report – Sumter: This report was incorporated into the Risk Assessment to help identify areas at risk and to determine an overall risk for the county.
- Tropical Cyclone Track Probability: Historical probability of a tropical cyclone crossing various locations around the world – Florida State University was used to determine the county's susceptibility in the Risk Assessment.
- US Corps of Engineers National Inventory of Dams: Information was incorporated in tot the Risk Assessment to provide an estimated number of dams in the county and their risk level.
- Alabama Department of Transportation Alabama Rail Directory 2014: Railroad information was used in the County Profile section to provide an idea of the county's transportation infrastructure.
- The Structure of the Livingston Fault Zone-W. Brown Hawkins, Jr and Richard Groshong, Jr. (1993): Earthquake information: Information regarding the Livingston Fault Zone was incorporated into the Risk Assessment.

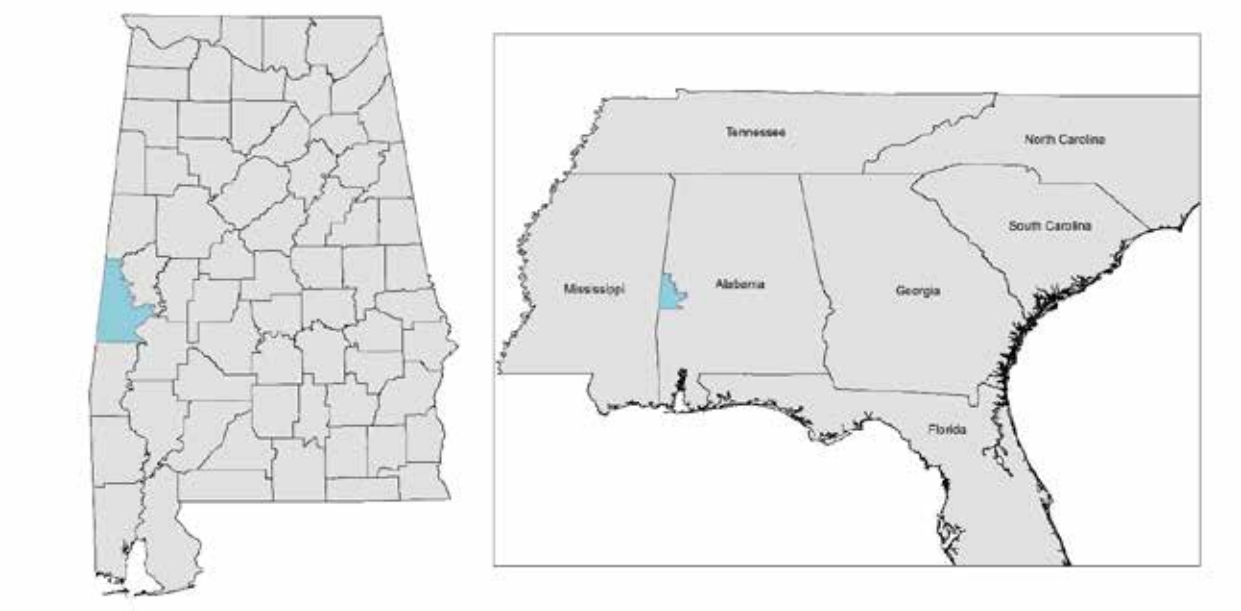
Summary of Changes Made in Plan Update
Section III. County Profile

This section gives a brief overview of the county as a whole. It is intended to help the reader become more familiar with the county. This is not a required section of the mitigation plan. The Alabama Tombigbee Regional Commission reviewed and updated the County Profile. Section A (Geology) was not updated, due to the nature of geology. In Section B (Transportation), the railroad map updated to reflect the latest information from the Alabama Department of Transportation. Section C (Economy) was revised to provide a narrative description of the county's economy. There were no revisions to Sections D (Utilities) and E (Media) due to no changes. Section F (Social and Economic Characteristics) was revised extensively to incorporate data from the American Community Survey. The hazard steering committee approved all changes prior to the final revision of the plan.

III. COUNTY PROFILE

Sumter County was established on December 18, 1832. It was named in honor of General Thomas Sumter of South Carolina. The county is bordered by Choctaw County to the South, Marengo and Greene Counties to the East, Pickens County to the North and Mississippi Counties Kemper and Lauderdale to the West (Figure 3.1). The Tombigbee River runs along the county's eastern border. The county spans an area of 907 square miles. It is the fourteenth largest county, with regards to area, in Alabama.

Figure 3.1 Sumter County in Relation to the State of Alabama and the Southeast United States

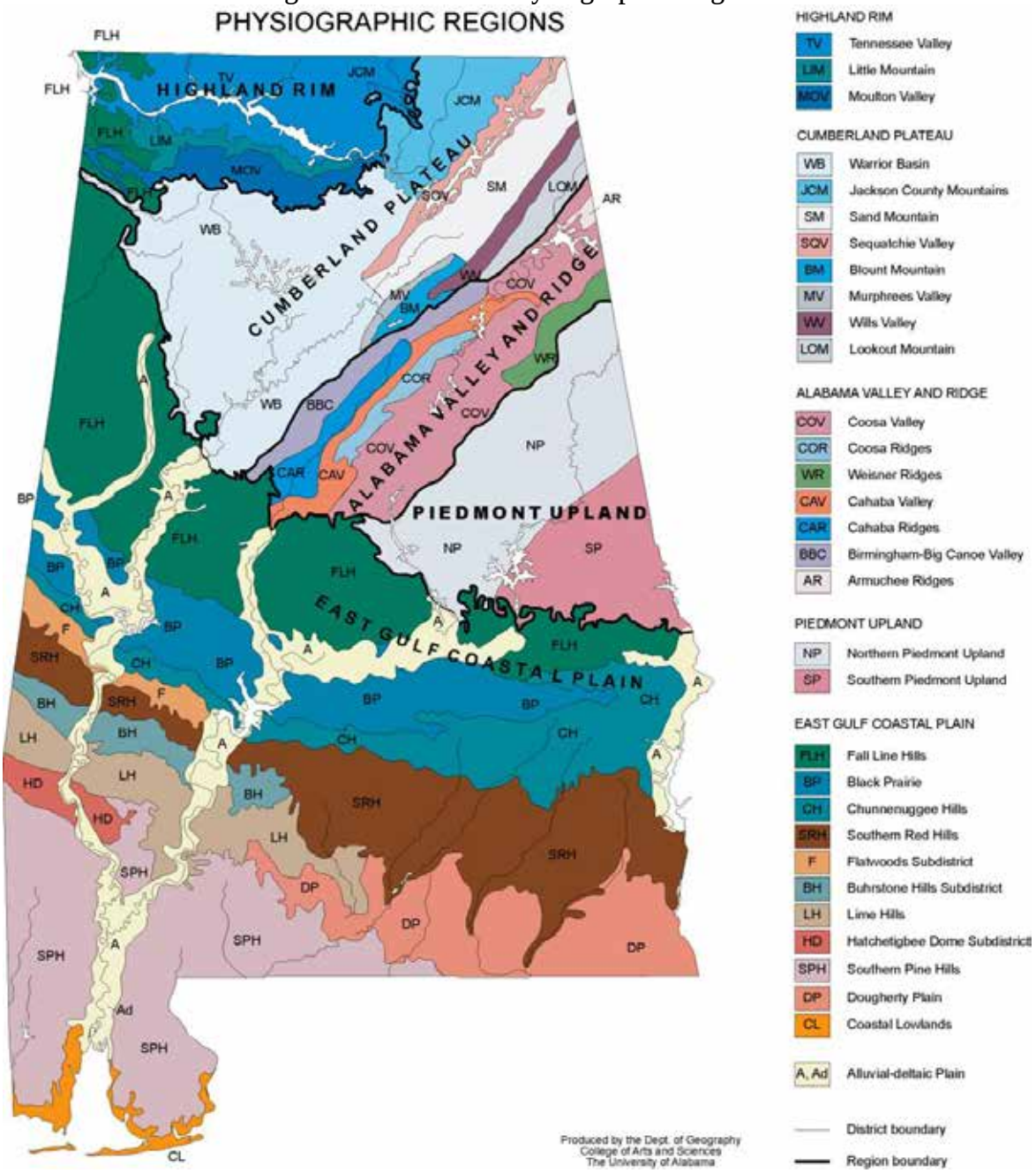


Map by the Alabama Tombigbee Regional Commission, September 2014

A. GEOLOGY

Sumter County lies in the East Gulf Coastal Plain. The land is fairly level with only moderate slopes. Geologic units range from the late Cretaceous to Recent. The "Livingston Fault Zone" stretches from Sumterville into the east-central part of the county. Displacement along these parallel faults ranges from a few inches to over one hundred feet in some areas.

Figure 3.2 Alabama Physiographic Regions



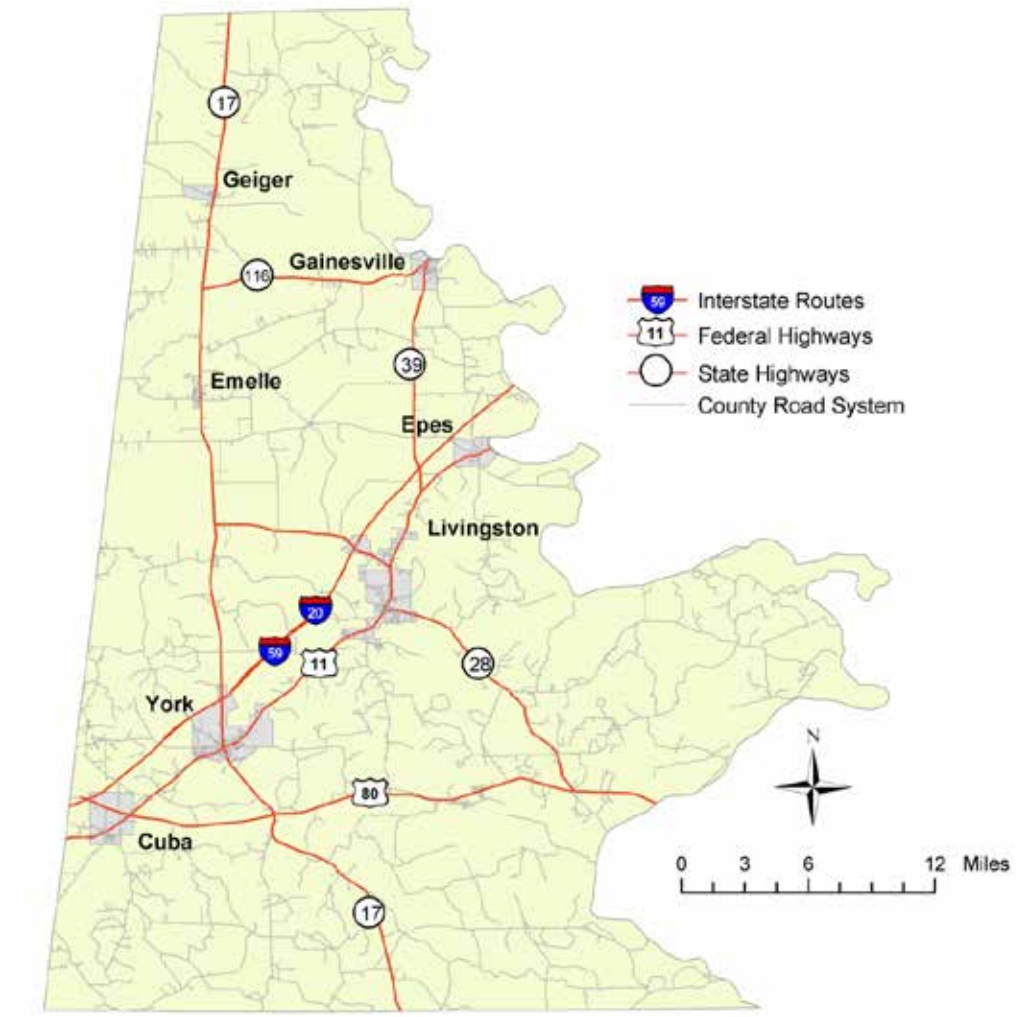
Source: Cartographic Research Laboratory, The University of Alabama
http://alabamamaps.ua.edu/contemporarymaps/alabama/physical/al_physio.jpg
Accessed on April 4, 2014

B. TRANSPORTATION

Roads

Interstate 20/59 transects Sumter County (Figure 3.3). This route runs from northeast to southwest across the county. United States Highway 11 runs parallel to the Interstate through the county. The municipalities of Epes, Livingston, York, and Cuba are along the route of these roads. United States Highway 80 runs from West to East across the county, Cuba is along its route. The county also has numerous state and county routes that connect the municipalities and unincorporated areas.

Figure 3.3 Sumter County Highways

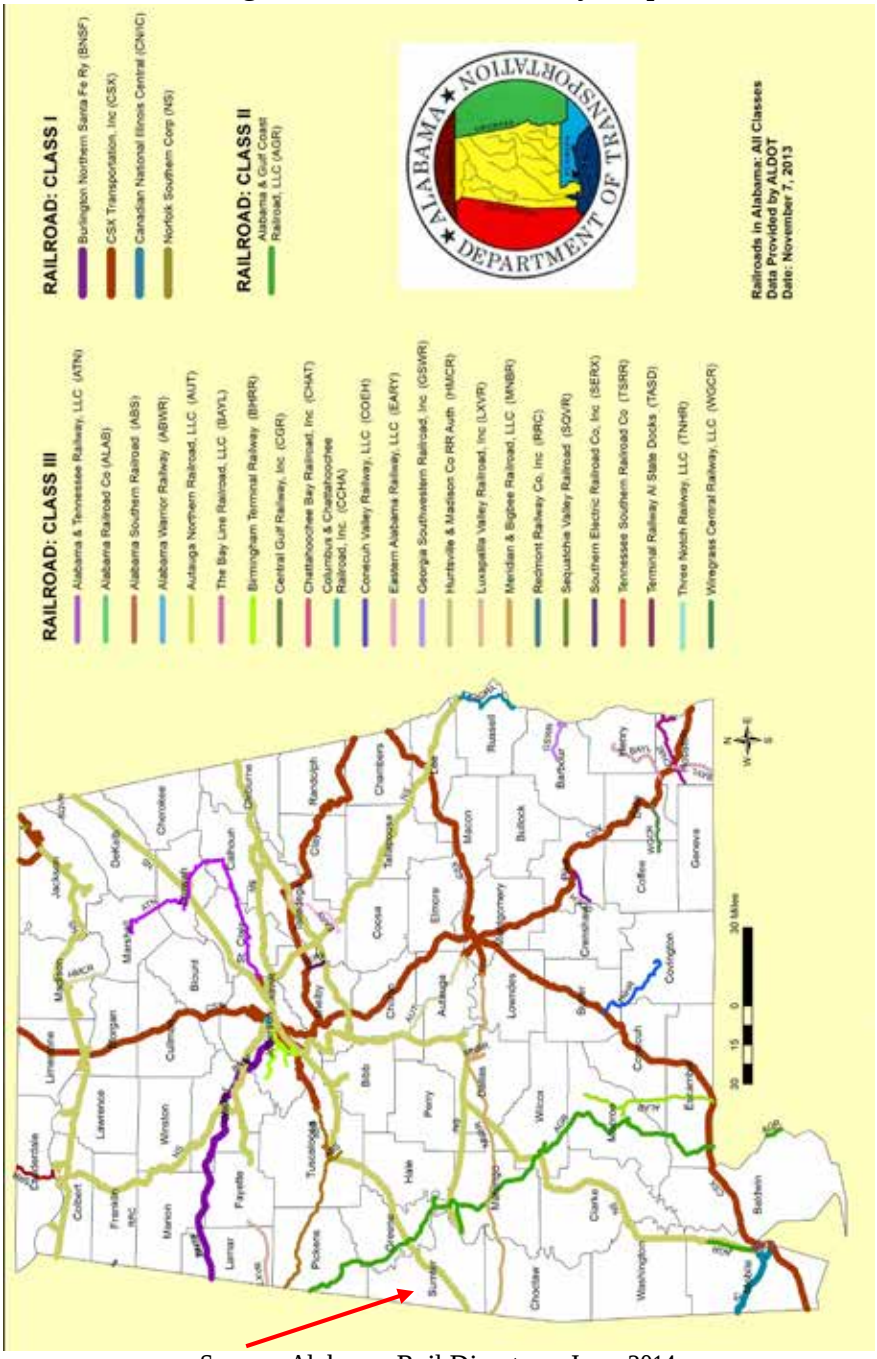


Map by the Alabama Tombigbee Regional Commission, 2009

Railroads

Sumter County has one major railroad, a northeast-southwest route (Figure 3.4). Norfolk Southern operates this route. This route is a Class I railroad meaning that it has operating revenue in excess of $272.0 million. Major commodities transported on this rail line include agricultural, chemical, construction, paper, automotive, coal products, and hazardous materials.

Figure 3.4 Alabama Railway Map



Source: Alabama Rail Directory, June 2014

Navigable Waterways

Sumter County's eastern border is the Tombigbee River (Figure 3.5). Epes and Gainesville are located along the river's route.

Figure 3.5 Sumter County's Navigable Waterways

Source: Cartographic Research Laboratory, The University of Alabama
http://alabamamaps.ua.edu/contemporarymaps/alabama/transportation/navwat.pdf
Last Accessed 12/20/2014

C. ECONOMY

Sumter County's economy is dependent on the agriculture and timber industries. The county is economically distressed. Unemployment rates are twice the state and national averages. Median income figures are less than half of state and national averages.

D. UTILITIES

Electricity: Alabama Power, Black Warrior Electric Cooperative
Water: Sumter County Water Authority, City of Cuba, City of Livingston, City of York
Natural Gas: Alabama Gas Corporation, Southern Natural Gas
Telecommunications: Bellsouth

E. MEDIA

Newspapers:

- *Sumter County Record Journal*

F. SOCIAL AND ECONOMIC CHARACTERISTICS

Table 3.1 gives basic social and economic characteristics of Sumter County. The county is a rural county located in the black belt region of Alabama. The area is distressed economically. The county's median income value is just 52% of the state average and 43% of the national average. The percent of families living below the poverty line in the county is twice that of the state average and over three times the national average.

Table 3.1 Sumter County Demographic Profile

	Sumter County	Alabama	United States
Population	13,669		
Male	6,160		
Female	7,509		
White	3,327		
Black	10,132		
Other	210		
Median Age	37.1 years		
Total Housing Units	6,796		
Occupied Housing Units	4,966		
Population 3 and Over Enrolled in School	94.5%		
Percent high school graduate or better	75.4%	82.6%	85.7%
Percent bachelor's degree or higher	15.3%	22.3%	28.5%
Median Household Income	$22,655	$43,160	$53,046
Per Capita Income	$13,951	$23,587	$28,051
Percent of families below the poverty level	33.2%	13.9%	10.9%
Percent of individuals below the poverty level	38.1%	18.1%	14.9%

Source: US Census Bureau, American Community Survey 2009-2013 Five Year Estimates
Last Accessed September 9, 2014

There are seven municipalities in the county. These municipalities are Cuba, Emelle, Epes, Gainesville, Geiger, Livingston, and York. Livingston is the county seat and largest municipality.

Table 3.2 gives basic social, economic, and housing characteristics of each municipality. Livingston and York have a significantly larger population than all other municipalities. All other municipalities have populations under five hundred persons. All municipalities, except Cuba, have significant minority populations.

Table 3.2 Characteristics by Municipality

Place	Cuba	Emelle	Epes	Gainesville	Geiger	Livingston	York
Population	330	19	89	208	164	3,456	2,758
Minority Percent	13.9%	100%	87.6%	71.6%	73.5%	64.6%	85.4%
Percent 65 Years and Older	19.1%	42.1%	19.1%	8.2%	20%	10.2%	12.6%
Percent Under Age 18	24.5%	0	13.5%	30.3%	27.1%	17.9%	30.2%
Per Capita Income	$22,575	$22,826	$26,224	$15,643	$13,387	$13,409	$14,687
Median Household Income	$36,875	$39,375	$32,917	$31,250	$31,705	$16,736	$21,172
Housing Units	177	24	62	93	83	1,641	1,331
Mobile Homes	16.9%	75%	11.3%	41.9%	27.7%	6.1%	13.9%
Percent 10 Units or More	<1%	0	4.8%	0	0	23%	4%

Source: US Census Bureau, American Community Survey 2009-2013 Five Year Estimates
Last Accessed September 9, 2014

Livingston covers the largest area (Table 3.3). It covers only four-one hundredths of a square mile more than York. Other than Cuba, which covers 4.06 square miles, all other municipalities are less than two square miles in area. Livingston has the highest population and housing densities followed by York in both categories. Epes has both the lowest housing and population densities in the county.

Table 3.3 Population and Housing Density by Municipality

Municipality	Land Area*	Water Area*	Total Area*	Housing Units	Housing Density**	Population	Population Density**
Cuba	4.06	0.01	4.07	177	43.6	330	81.3
Emelle	0.22	0	0.22	24	109	19	86.4
Epes	1.92	0	1.92	62	32.3	89	46.4
Gainesville	1.71	0	1.71	93	54.4	208	121.6
Geiger	0.99	0	0.99	83	83.8	164	165.7
Livingston	7.12	0.08	7.20	1,641	230.5	3,456	485.4
York	7.08	0.02	7.10	1,331	188	2,758	389.5

*Square miles
**Density per square mile of land

Source: Alabama Tombigbee Regional Commission calculations using US Census Bureau, American Community Survey 2009-2013 Five Year Estimates
Developed September 9, 2014

Summary of Changes Made in Plan Update
Section IV. Risk Assessment

The Risk Assessment section of this plan addresses requirement §201.6(c)(2)(i). It provides a description of the type, location, and extent of all natural hazards that can affect Sumter County. It also includes information on previous occurrences of hazard events and on the probability of future hazard events.

The *Risk Assessment* portion of the plan was reviewed with the Steering Committee. Each hazard was reviewed and the committee decided whether or not more detail was needed. This section underwent extensive changes. These changes are outlined below. There were a number of hazards with no changes made due to their nature.

- Dam Failure: Number of dams in the county changed due to National Inventory of Dams standards. Lake Louise dam failure information was added for the City of York.
- Earthquakes: More general information was provided on earthquake intensity and magnitude. Occurrence data was updated. Risk map was updated.
- Extreme Heat& Drought: More detailed information regarding measuring extreme heat and drought was provided.
- Flooding: Areas subject to flash flooding were updated. Firmettes were added to Appendix #5.
- Hurricanes and Coastal Storms: The probability of a hurricane occurring in the county was updated. Past occurrences were updated.
- Severe Storms: Information regarding the number of thunderstorm days, hail days, and lightning distribution was updated. More detailed information regarding hail was provided.
- Tornadoes: Updated information concerning recent tornadoes.
- Wildfire: New data regarding probability of occurrence was added.
- The Extent of Each Identified Hazards table was updated.
- All previous occurrences were updated.
- Probabilities of Future Occurrences were updated.

*The Sumter County Water Authority, Sumter County Opportunity, Inc., and Sumter County School Systems' facilities are located throughout the County meaning their risks vary by location. It should be understood the water authority's and school systems' risk is a conglomeration of all jurisdictions risks.

IV. RISK ASSESSMENT

The risk assessment process is necessary to identify those natural hazards that pose a risk to Sumter County. The risk assessment of the current mitigation plan was reviewed by ATRC and the Sumter County EMA initially. Revisions were made based on the events of the past five years. The committee was then given a chance to review the assessment and propose any revisions they felt were necessary.

Table 4.1 designates which hazards were identified as possibly affecting each jurisdiction. The following section analyzes each hazard and identifies the risk level the steering committee assigned to each. Low risk hazards are those with low probabilities or minimal effects. Medium risk hazards have higher probabilities and increased effects. High risk hazards are those hazards with a high probability of occurring or those that have significant effects when they do occur. All hazards with identified risks are discussed in the occurrences, vulnerability, losses, and mitigation strategies sections of the plan.

Included as Appendix #2 is information concerning manmade and technological hazards for which the county is at risk. This information is included for informational purposes only. No past occurrence, probability, or mitigation strategies will be presented for these.

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Table 4.1 Hazard Identification Results

Hazard	Unincorporated	Cuba	Emelle	Epes	Gainesville
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes	X	X	X	X	X
Expansive Soils	X	X	X	X	
Extreme Heat and Drought	X	X	X	X	X
Flood(including Flash Flooding)	X	X	X	X	X
Hurricanes	X	X	X	X	X
Landslides	X	X	X	X	X
Land Subsidence	X	X	X	X	X
Severe Storms(thunder-storms, lightning, high wind, hail)	X	X	X	X	X
Severe Winter Storm (Snow and Ice)	X	X	X	X	X
Soil Erosion					
Tornado	X	X	X	X	X
Tsunamis					
Volcanoes					
Wildfire	X	X	X	X	X

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Table 4.1 Hazard Identification Results (continued from page 25)

Hazard	Geiger	Livingston	York
Avalanche			
Coastal Erosion			
Dam Failure		X	
Earthquakes	X	X	X
Expansive Soils	X	X	X
Extreme Heat and Drought	X	X	X
Flood (including flash flooding)	X	X	X
Hurricanes	X	X	X
Landslides	X	X	X
Land Subsidence	X	X	X
Severe Storms(thunder-storms, lightning, high wind, hail)	X	X	X
Severe Winter Storm(Snow and Ice)	X	X	X
Soil Erosion			X
Tornado	X	X	X
Tsunamis			
Volcanoes			
Wildfire	X	X	X

Table developed by the Alabama Tombigbee Regional Commission
August 15, 2014

*The Sumter County Water Authority, Sumter County Opportunity, Inc., and Sumter County School Systems' facilities are located throughout the County meaning their risks vary by location. It should be understood the water authority's and school systems' risk is a conglomeration of all jurisdictions risks.

A. IDENTIFICATION OF HAZARDS

Avalanche

Avalanches are masses of snow, which slide down mountain slopes. They occur when snow becomes dislodged or unstable on a mountain slope. Sumter County has neither steep slopes nor any regular snowfall; therefore, Sumter County is not at risk of this hazard.

Coastal Erosion

Coastal erosion is the breakdown and movement of rock and soil from coastal locations by processes such as weathering. Wind and water are two common moving forces in this process. Sumter County is not a coastal location; therefore, Sumter County is not at risk of this hazard.

Dam Failure

Dam failures usually occur when the spillway capacity is inadequate and water overtops the dam or when internal erosion through the dam foundation occurs (also known as piping). If internal erosion or overtopping cause a full structural breach, a high-velocity, debris-laden wall of water is released and rushes downstream, damaging or destroying whatever is in its path.

Dam failures may result from one or more the following:

- Prolonged periods of rainfall and flooding (the cause of most failures)
- Inadequate spillway capacity which causes excess overtopping flows
- Internal erosion erosions due to embankment or foundation leakage or piping
- Improper maintenance
- Improper design
- Negligent operation
- Failure of upstream dams
- Landslides into reservoirs
- High winds
- Earthquakes.

The State of Alabama is the only state without a dam safety program. A statewide dam safety program is needed to protect lives and property, assist local officials in planning and responding to emergency situations, and to help dam owners control their liability. In Alabama, dam information in the National Inventory of Dams is over thirty years old. The majority of dams in the state are deteriorating and over 30 years old. Numerous attempts have been made over the years to create a dam safety program in the state, but all have failed.

The National Inventory of Dams lists fifty-nine dams as being located in Sumter County. The NID consists of dams meeting at least one of the following criteria: 1) High hazard classification - loss of one human life is likely if the dam fails, 2) Significant hazard classification - possible loss of human life and likely significant property or environmental destruction, 3) Equal or exceed 25 feet in height and exceed 15 acre-feet in storage, 4) Equal or exceed 50 acre-feet storage and exceed 6 feet in height.

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Twelve dams are listed in the significant risk category meaning their failure or misoperation would probably not result in the loss of life, but would result in economic loss, environmental damage, and disruption of lifeline facilities. The remaining forty-seven dams in the county are listed as at low risk meaning that their failure or misoperation would not result in the loss of life and only low economic or environmental damage. A listing of all dams included in the NID for Sumter County is included as Appendix #3.

The Howell Heflin Local and Dam located in Gainesville is a high risk dam. This facility is listed as being located in Greene County in the NID, but it is truly located on the border of Greene and Sumter counties. The US Army Corps of Engineers operates this facility and has extensive plans and procedures in place. The dam's emergency plan was last updated in 2011. A map depicting the location of this dam, along with an aerial view of this facility are included as Figure 4.1 and Figure 4.2.

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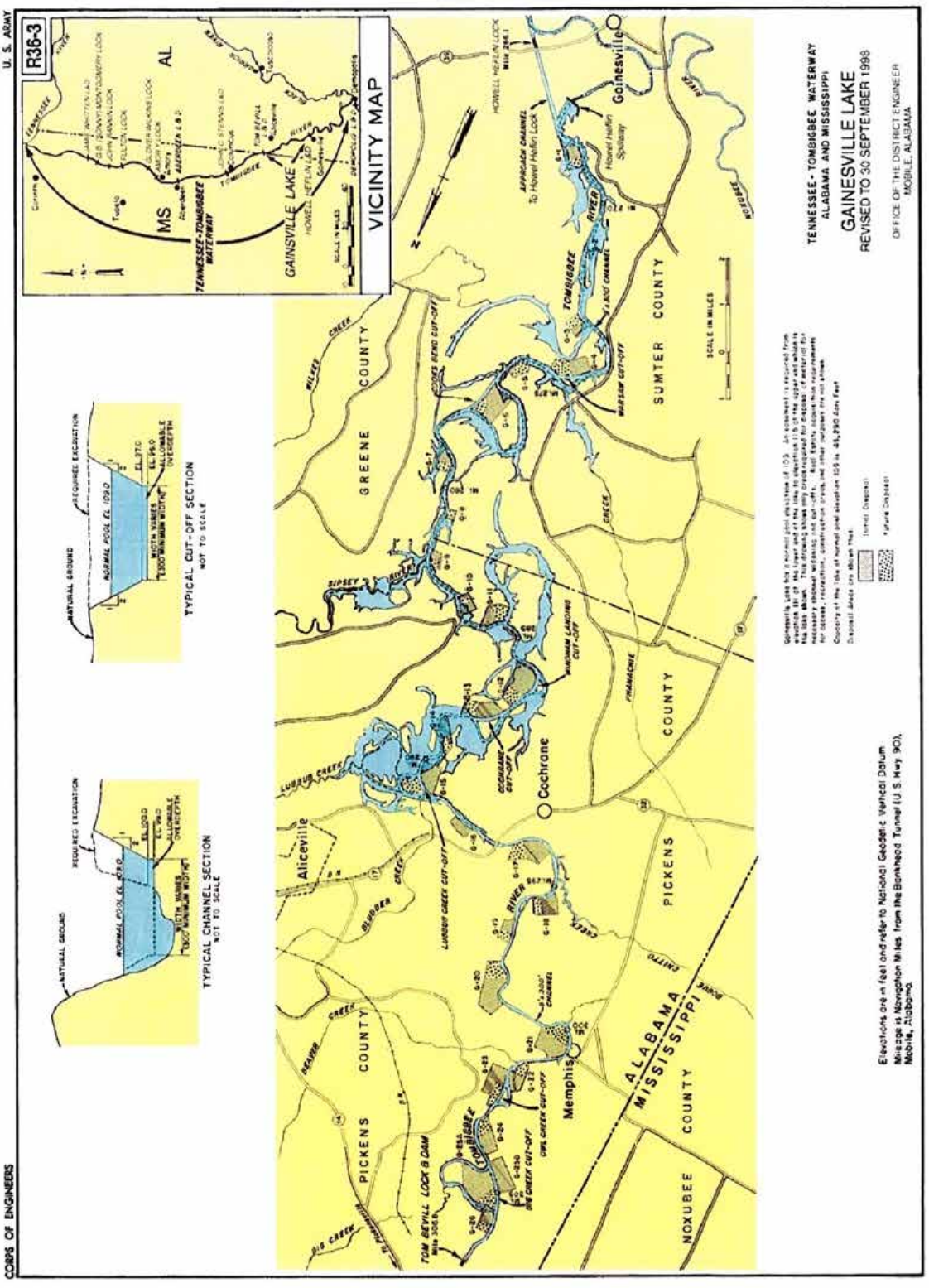
Figure 4.1 Heflin Lock and Dam Location Map



Source: US Army Corps of Engineers, August 2014

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Figure 4.2 Heflin Lock and Dam

Source: US Army Corps of Engineers, August 2014

While dam failure is not perceived to be a risk for the county as a whole, the City of Livingston and the University of West Alabama (UWA) raised concerns regarding the Lake L.U. dam on UWA's campus. The failure of this dam could potentially result in loss of life, injuries, and property damage due to the construction of apartment buildings four hundred feet from the structure. This high-density housing has raised concerns regarding the potential for loss of life in the event of the dam being compromised. In a report compiled by the Natural Resource Conservation Service (NRCS), it is anticipated that in the event the dam is compromised at least two of the building's bottom levels will be inundated with possibly up to six feet of water. It is also cited that with such proximity to the dam, water velocity would be high enough to cause significant structural damage to these buildings. Due to this information, dam failure is a high risk in Livingston. The Lake LU Emergency Action Plan is attached as Appendix 4.

Due to emergency operations plans already being in place for the Heflin Lock and Dam and the Lake LU dam, the committee has decided that dam failure is considered to be a low risk at this time for these facilities. The risk presented by these dam is being strictly monitored and emergency plans are in place.

The City of York identified concerns with the Lake Louise Dam located on Toomsuba Creek. Failure of this dam could affect 50- 60 residences in the City of York. The NID classifies the dam as a significant risk meaning possible loss of human life and likely significant property or environmental destruction would occur. The City of York has elected to classify dam failure as a

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moderate risk and address this in the mitigation strategies section of the plan.

Earthquakes

The USGS defines an earthquake as a sudden slip on a fault. Earth's tectonic plates are always moving relative to each other, but they can get stuck at their edges due to friction. When the stress on the edge overcomes the friction, there is an earthquake that releases energy in waves that travel through the earth's crust and cause the shaking that we feel. The hazards associated with earthquakes include anything that can affect the lives of humans, including surface faulting, ground shaking, landslides, liquefaction, tectonic deformation, tsunamis, and seiches.

Earthquakes are measured using the Mercalli Scale. Table 4.2 gives a description of this scale. The scale does not have a mathematical basis; instead it is an arbitrary ranking based on observed effects.

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Table 4.2 Mercalli Earthquake Measurement Scale

PGA (%g)	Magnitude (Richter)	Intensity (MMI)	Description (MMI)
<0.17 – 1.4	1.0 – 3.0	I	Not felt except by a very few under especially favorable conditions.
0.17 – 1.4	3.0 – 3.9	II – III	II. Felt only by a few persons at rest, especially on upper floors of buildings. III. 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.
1.4 – 9.2	4.0 – 4.9	IV – V	IV. 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 rock noticeably. V. Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
9.2 – 34	5.0 – 5.9	VI – VII	VI. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. VII. 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.
34 – 124	6.0 – 6.9	VIII – IX	VIII. 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. 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.
>124	7.0 and higher	VIII or Higher	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. XI. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. XII. Damage total. Lines of sight and level are distorted. Objects thrown into the air.
Source: United States Geological Survey http://earthquake.usgs.gov Last accessed 12/09/2014			

Although many areas of the United States are better known for their susceptibility, earthquakes do occur in Alabama. There are four seismic zones that affect the state; these zones are the New Madrid Seismic Zone, Southern Appalachian Seismic Zone, Bahamas Fracture Seismic Zone, and the South Carolina Seismic Zone (SCSZ) (Figure 4.3). Sumter County is not located within any of these zones; however, the Livingston Fault Zone is located within the county. This zone runs from Sumterville into the central-eastern part of the county.

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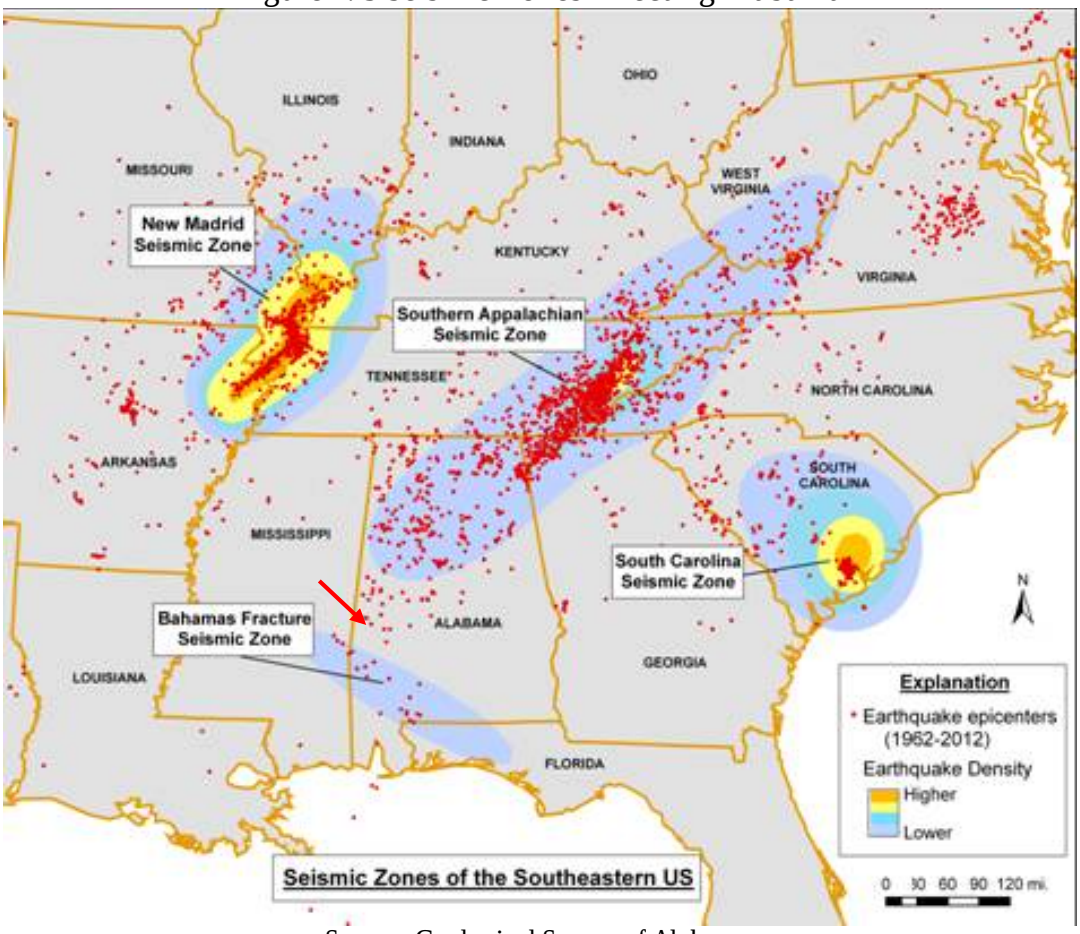
A description of this zone is provided by Brown and Groshong (1993):

"The Livingston fault zone trends across the Upper Cretaceous rocks of the coastal plain in Sumter County. Three bands of faulting have been recognized in the zone: a normal fault band to the northeast, a central reverse fault band, and another normal fault band to the southwest. All faults in the zone trend between 280 and 300 degrees and are purely dip slip. Dip slip is demonstrated by downdip striations and grooves on the fault surface.

A structure contour map, on the top of the Eutaw Formation, shows that the fault zone approximately coincides with the south-dipping steep limb of a monocline. Seismic profiles indicate that the monocline formed by inversion of an underlying Early Cretaceous half-graben. Initial sedimentation in the half-graben occurred during the Early Cretaceous and the master fault cuts the Paleozoic-Mesozoic unconformity. Inversion of the structure began during the earliest Late Cretaceous (Tuscaloosa Formation) and continued into the earliest Tertiary (Clayton Formation)."

Figure 4. 3 Seismic Zones Affecting Alabama



Source: Geological Survey of Alabama
http://gsa.state.al.us/gsa/geologichazards/Quakes_AL.htm#AdditionalInfo
Last Accessed on: 12/8/2014

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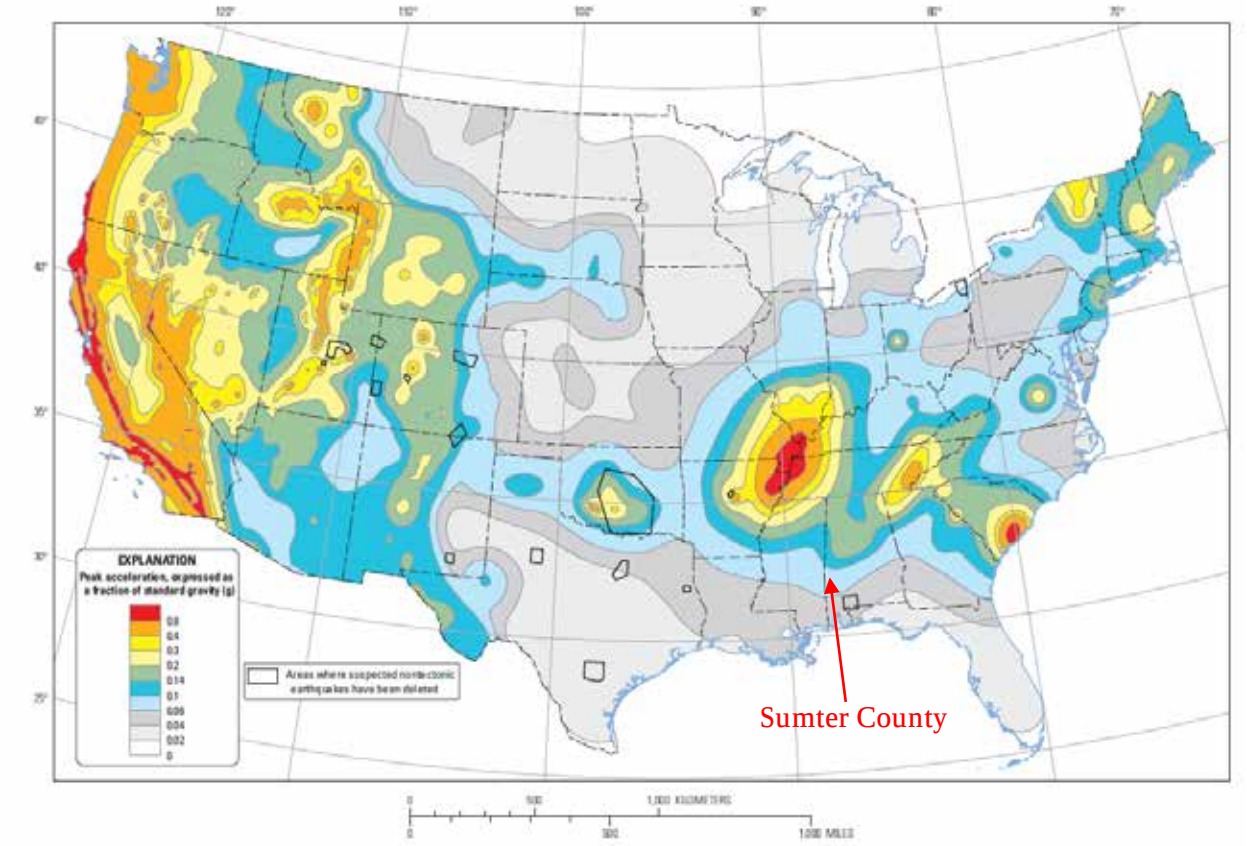
Earthquake risk is defined as the probability of damage and loss that would result if an earthquake caused by a particular fault were to occur. Figure 4.4 gives the peak acceleration values for Sumter County. This value is 0.14 in the northern part of the county and 0.10 in the southern section. Peak acceleration is a measure of how fast the rate of the earth's movement changes compared to the gravitational acceleration rate during an earthquake. Peak acceleration values of 0.14 and 0.10 translate into a moderate risk.

Figure 4.4 Peak Acceleration Values (2014)



Two-percent probability of exceedance in 50 years map of peak ground acceleration

Source: United States Geologic Survey
http://earthquake.usgs.gov/hazards/products/conterminous/2014/2014_pga2pct50yrs.pdf
Last Accessed: 12/8/2014

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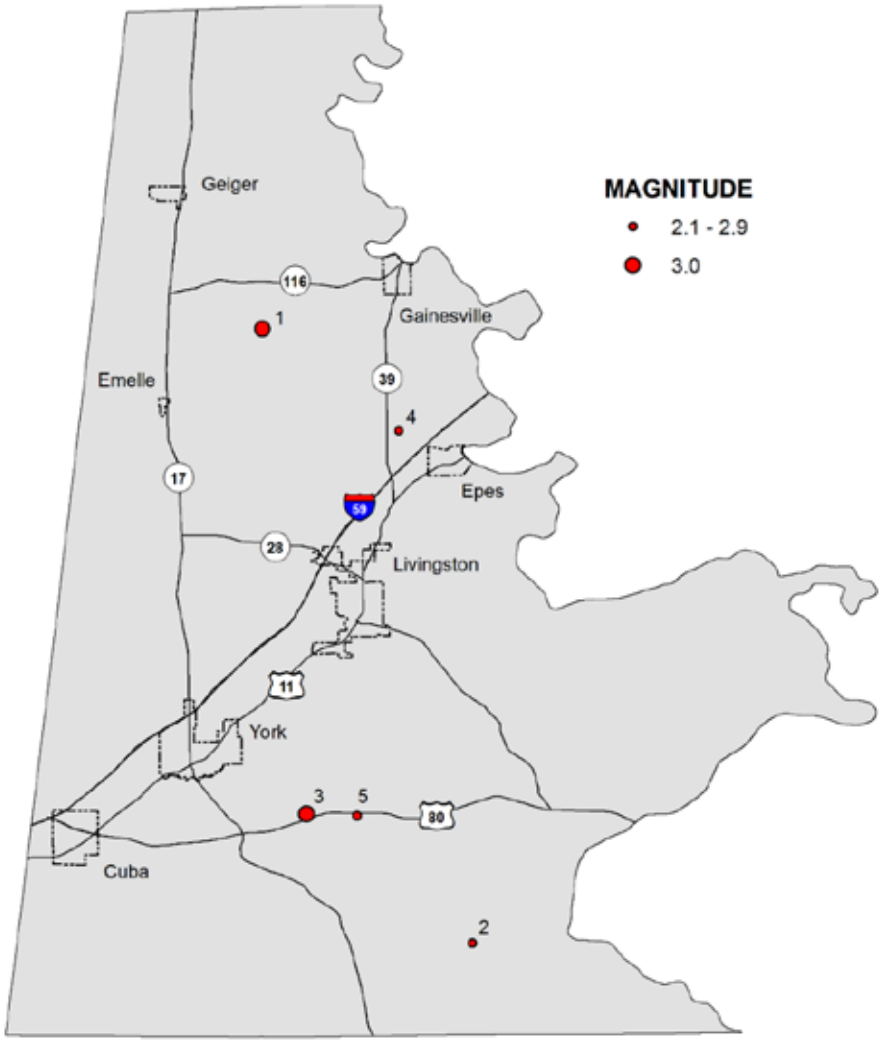
Figure 4.5 and Table 4.3 provide information on historical occurrences of earthquakes in Sumter County. There are six earthquakes on record.

Figure 4.5 Past Occurrences of Earthquakes in Sumter County, Alabama



Map by Alabama Tombigbee Regional Commission using Alabama Geological Survey Data, 2014

Table 4.3 Past Occurrences of Earthquakes in Sumter County

Map ID #	HYPOCENTER	EARTHQUAKE NAME	LATITUDE	LONGITUDE	DEPTH	MAGNITUDE
1	19780108	1978_Jan_08_SumterCo	32.7800	-88.2500	5 km	3
2	19980507	1998_May_07_Demopolis	32.3700	-88.1100	10 km	2.8
3	20020521b	2002_May_21_York	32.4560	-88.2210	27.4 km	3
4	20060311	2006_Mar_11_Livingston	32.7120	-88.1590	30.7 km	2.6
5	20090717	2009_Jul_17_York	32.4550	-88.1870	32 km	2.1

Source: Alabama Geological Survey, 2014

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In addition to the five events listed above, there is evidence of an earthquake related to the Cedar Creek streambed. The location of this quake would have been in the NW ¼ of the NW ¼ of Section 11, Township 19N, Range 2W. The flow of the creek was reportedly reversed due to this event.

Based on the information presented herein and the nature of the hazard, the Sumter County Natural Hazards Steering Committee feels that the county is susceptible to earthquakes, but has decided that due to the extent and magnitude of past occurrences they are a low risk at this time.

Expansive Soils

Expansive soils are soils that swell when they come in contact with water. The occurrence of clay is generally the cause of such behavior. Figure 4.6 shows the general soil areas for the state. Approximately sixty seven percent of the area covered by soil is covered by soil with shrink/swell potential. These soils are not suited for urban or residential construction. They are however suitable for crop cultivation, pasture land, and woodland.

Figure 4.7 and Table 4.4 give detailed information on Sumter County soils. The table shows that most of the soil groups in Sumter County do have shrink/swell potential. The shrink swell soils in Sumter County include the Wilcox-Mayhew, Luverne-Troup, and Kipling-Demopolis-Sucarnochee soil units. These soils occur throughout the County. Due to the nature of effects of this hazard, the steering committee has decided expansive soil is a low risk hazard.

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Figure 4.6 General Soils of Alabama

Source: Cartographic Research Lab, University of Alabama
http://alabamamaps.ua.edu/contemporarymaps/alabama/physical/soils_map.jpg
Last Accessed: 04/18/2014

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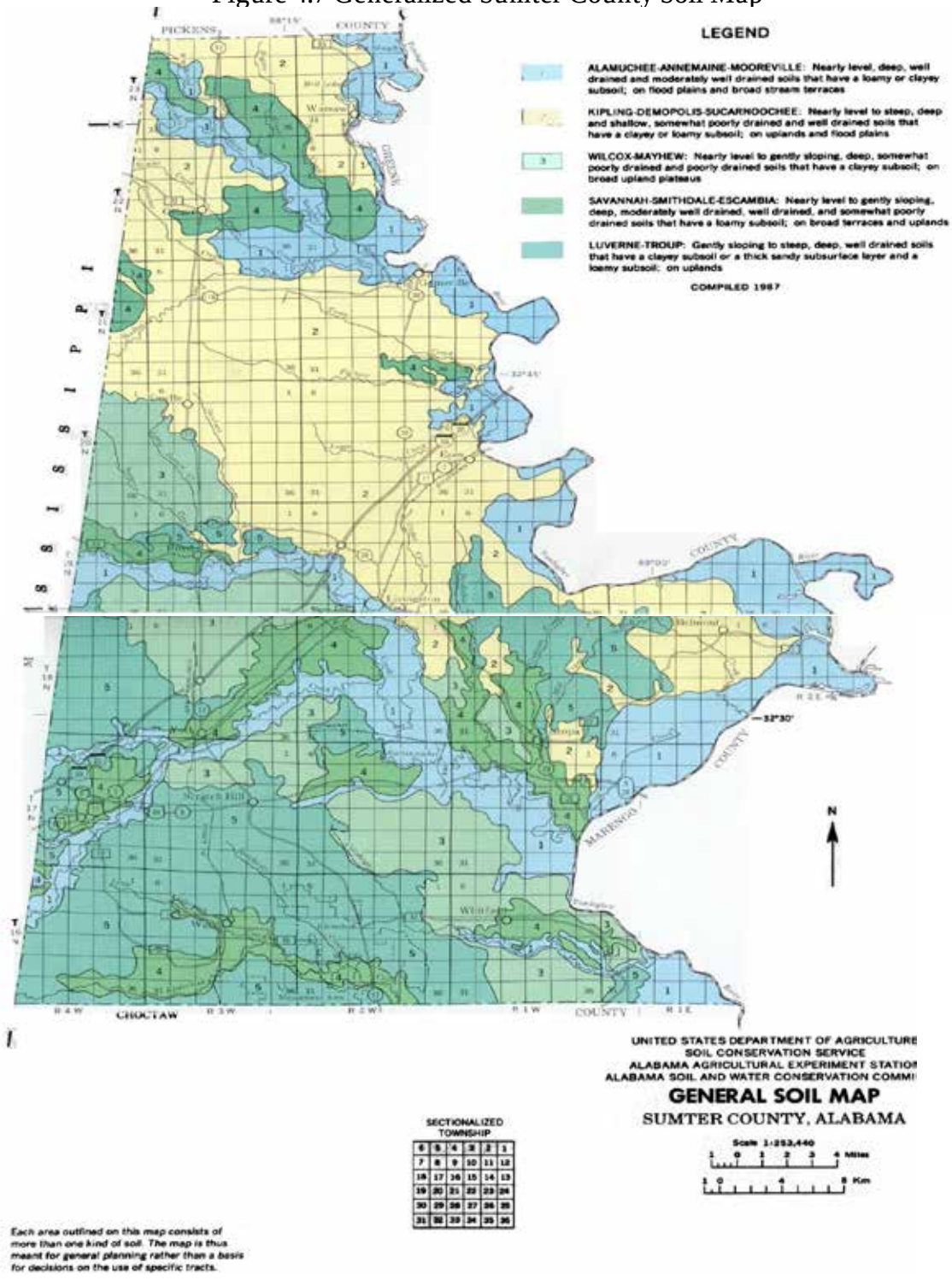
Figure 4.7 Generalized Sumter County Soil Map



Source: *Soil Survey of Sumter County, Alabama 1989*

*The Sumter County Water Authority, Sumter County Opportunity, Inc., and Sumter County School Systems' facilities are located throughout the County meaning their risks vary by location. It should be understood the water authority's and school systems' risk is a conglomeration of all jurisdictions risks.

Table 4.4 Suitability and Limitations of General Soil Units in Sumter County

Map unit	Extent of area	Cultivated crops	Pasture and hayland	Woodland	Urban uses	Intensive recreation areas	Extensive recreation areas
	Pct						
1. Alamuchee-Annemaine-Mooreville	20	Well suited to poorly suited: floods.	Well suited to poorly suited: floods.	Well suited: floods.	Poorly suited: floods.	Poorly suited: floods.	Poorly suited: floods.
2. Kipling-Demopolis-Sucarnoochee	31	Fairly suited to poorly suited: slope, wetness, poor tilth.	Fairly suited to poorly suited: slope, wetness, floods.	Well suited to poorly suited: too clayey, too alkaline.	Poorly suited: floods, high shrink-swell, depth to rock.	Poorly suited: floods, too clayey, slope.	Fairly suited: floods, too clayey, slope.
3. Wilcox-Mayhew	14	Fairly suited: wetness, poor tilth.	Fairly suited: wetness.	Well suited: too clayey.	Poorly suited: wetness, too clayey, high shrink-swell.	Poorly suited: wetness, too clayey, shrink-swell.	Poorly suited: wetness, too clayey.
4. Savannah-Smithdale-Escambia	13	Well suited-----	Well suited----	Well suited------	Well suited to poorly suited: wetness, percs slowly.	Well suited to poorly suited: wetness, percs slowly.	Well suited: wetness.
5. Luverne-Troup	22	Well suited to not suited: slope, droughty.	Well suited to not suited: slope, droughty.	Well suited: droughty.	Fairly suited: slope, percs slowly, shrink-swell, too sandy.	Fairly suited to poorly suited: slope, percs slowly, too sandy.	Fairly suited to poorly suited: slope, percs slowly, too sandy.

Source: *Soil Survey of Sumter County, Alabama 1989*

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Extreme Heat and Drought

The National Weather Service defines drought as a persistent and abnormal moisture deficiency having adverse impacts on vegetation, animals, and people. Meteorological, hydrological, and agricultural are the three types of droughts. Meteorological droughts occur when precipitation departs from normal amounts, high temperatures may also play a role in this type of drought. Hydrological droughts are deficiencies in surface or subsurface water levels. Agricultural droughts occur when there is not enough soil moisture to support crop growth. Some degree of drought is common in West Alabama during the summer months.

Drought can be measured numerous ways. Sumter County used local information along with information provided by the Drought Mitigation Center's Drought Monitor to assess risk. Table 4.5 provides a description of the monitor's classification scheme.

Table 4.5 US Drought Monitor Classification Scheme

Category	Description	Possible Impacts	Palmer Drought Index	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Standardized Precipitation Index (SPI)	Objective Short and Long-term Drought Indicator Blends (Percentiles)
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered	-1.0 to -1.9	21-30	21-30	-0.5 to -0.7	21-30
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested	-2.0 to -2.9	11-20	11-20	-0.8 to -1.2	11-20
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed	-3.0 to -3.9	6-10	6-10	-1.3 to -1.5	6-10
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions	-4.0 to -4.9	3-5	3-5	-1.6 to -1.9	3-5
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies	-5.0 or less	0-2	0-2	-2.0 or less	0-2

Source: United States Drought Monitor
http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx
Last Accessed on 12/09/2014

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High, subtropical temperatures are common in west Alabama. Under normal conditions, frequent afternoon thunderstorms produce enough precipitation to alleviate drought concerns. However over that past four years according to the US Drought Monitor, Sumter County has experienced some degree of drought conditions. Due to this information and historical occurrence, the Steering Committee feels this hazard is a high risk.

Extreme heat is defined as temperatures that are ten or more degrees or higher than average daily temperatures and last for several weeks. Extreme heat can damage an area economically by resulting in crop losses. The health of persons living and working within the area is also threatened. Health conditions that result from extreme heat range from mild to severe. These conditions include sunburn, heat cramps, heat exhaustion, and heat stroke.

Heat can be deadly regardless of the length of time it persists. The National Weather Service issues three types of heat related advisories:

- Excessive Heat Outlooks: are issued when the potential exists for an excessive heat event in the next 3-7 days. An Outlook provides information to those who need considerable lead time to prepare for the event, such as public utility staff, emergency managers and public health officials. See the mean heat index and probability forecasts maps.
- Excessive Heat Watches: are issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours. A Watch is used when the risk of a heat wave has increased but its occurrence and timing is still uncertain. A Watch provides enough lead time so that those who need to prepare can do so, such as cities officials who have excessive heat event mitigation plans.
- Excessive Heat Warning/Advisories are issued when an excessive heat event is expected in the next 36 hours. These products are issued when an excessive heat event is occurring, is imminent, or has a very high probability of occurring. The warning is used for conditions posing a threat to life. An advisory is for less serious conditions that cause significant discomfort or inconvenience and, if caution is not taken, could lead to a threat to life.

The National Weather Service's heat index chart is given below. The heat index is a measure of how hot it feels outside. Humidity is factored into this calculation.

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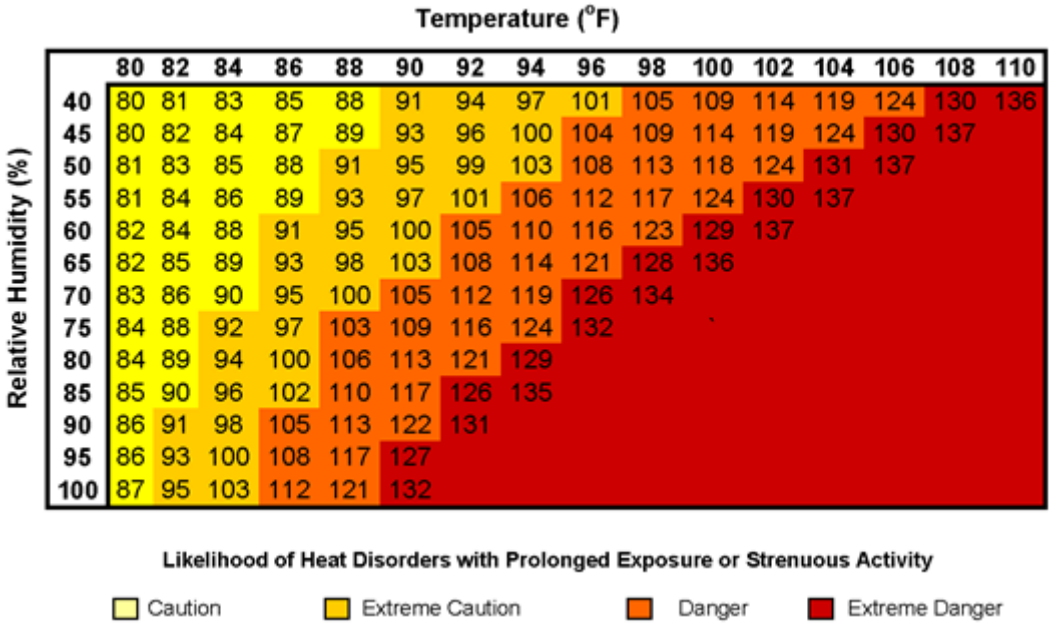
Table 4.6 NOAA's National Weather Service Heat Index



Source: National Oceanic and Atmospheric Administration
http://www.nws.noaa.gov/os/heat/index.shtml#heatindex
Last Accessed on 12/09/2014

In Sumter County, high temperatures and high humidity occur on a regular basis during the summer months making heat a high risk hazard.

Flood

According to the National Weather Service, the most common types of flooding in the United States are:

- Flash flooding: Flash floods generally develop within 6 hours of the immediate cause. Causes of flash flooding include heavy rain, ice or debris jams, and levee or dam failure. These floods exhibit a rapid rise of water over low-lying areas. In some cases, flooding may even occur well away from where heavy rain initially fell. There are many reasons that flash floods occur, but one of the most common is the result of copious amounts of rainfall from thunderstorms that cause flash flooding. This can also occur when slow-moving or multiple thunderstorms move over the same area. These sudden downpours can rapidly change the water levels in a stream or creek and turn small waterways into violent, raging rivers. Urban areas are especially prone to flash floods due to the large amounts of concrete and asphalt surfaces that do not allow water to penetrate into the soil easily.

- River flooding: River flooding occurs when river levels rise and overflow their banks or the edges of their main channel and inundate areas that are normally dry. River flooding can be caused by heavy rainfall, dam failures, rapid snowmelt and ice jams. The National Weather Service issues Flood Warnings for designated River Forecast Points where a flood stage has been established.

  River flooding is classified as Minor, Moderate, or Major based on water height and impacts

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along the river that have been coordinated with the NWS and local officials. Minor river flooding means that low-lying areas adjacent to the stream or river, mainly rural areas and farmland and secondary roadways near the river flood. Moderate flooding means water levels rise high enough to impact homes and businesses near the river and some evacuations may be needed. Larger roads and highways may also be impacted. Major flooding means that extensive rural and/or urban flooding is expected. Towns may become isolated and major traffic routes may be flooded. Evacuation of numerous homes and business may be required.

There is an additional level of flooding known as record flooding. In many cases this falls into the major flood category, but it doesn't have to. A record flood is simply one where the water reaches a level higher than it ever has been recorded before. Therefore, record flooding can cause extensive damage or even no damage or other negative impacts at all.

- Flooding from Tropical Systems/Hurricanes: When people think of tropical storms and hurricanes they typically think of strong winds, yet the highest percentage of all tropical cyclone deaths are due to flooding. Coastal flooding generally occurs with a land-falling or near-land system such as a Tropical Storm or Hurricane. Storm surge and large waves produced by hurricanes pose the greatest threat to life and property along the coast. The destructive power of storm surge and large battering waves can result in loss of life; destruction of buildings; erosion of beaches and dunes; and damage to roads and bridges along the coast. Storm surges undermine building foundations by constant agitation of the water piled high by the tropical cyclone. The end result can be a complete demolition of homes and businesses.

  Tropical cyclones can cause flooding in the U.S. each spring through fall. While the official hurricane Season runs from June to November in the Atlantic and May to November in the Pacific, tropical storms have been known to occur outside of this timeframe. Tropical cyclones can bring copious amounts of precipitation onshore. The majority of the heaviest rain occurs to the right of the center of the storm; however, it should be noted that rain bands on both sides of the system can produce heavy rain.

- Burn scars/debris flows: In areas where wildfires have occurred, vegetation may have been burned away and soil properties may have been altered, leaving behind bare ground that tends to repel water. This is called a burn scar. When rain falls over a burn scar, the ground is unable to absorb the moisture, leaving the water to collect or run across the surface of the ground towards the lowest point. Wildfires are common in the western U.S.; however, wildfires occur in all 50 states, so this type of flooding is possible anywhere.

  Without vegetation to hold the soil in place, flooding can produce mud and debris flows. When normally dry soil becomes overly saturated, it can reach a point where it turns to a liquid state and flows downhill, essentially becoming a river of mud. Mud and debris flows can destroy homes, wash out bridges and roadways, and knock down trees. They can also deposit large amounts of mud and other debris on previously clear surfaces, damaging or burying everything in their path. Areas where ground cover has recently changed dramatically, such as an area impacted by a wildfire, can be at a higher risk for mudflows.

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- Ice/Debris Jams: Ice jams are common during the winter and spring along rivers, streams and creeks in the higher latitudes of the continental U.S. as well as in Alaska. Many of the record flood events along major rivers in Alaska are the result of ice jams Debris jams can occur at any time of year and have the same implications as an ice jam. As ice or debris moves downstream, it may get caught on any sort of obstruction to the water flow. When this occurs, water can be held back, causing upstream flooding. When the jam finally breaks, flash flooding can occur downstream.

- Snowmelt: Snowmelt flooding occurs when the major source of water involved in a flood is caused by melting snow.

- Dry Wash: In dry areas of the U.S. significant rainfall can quickly cause flooding. For example, much of the year the desert southwest is very dry. However, each summer, the weather pattern changes, bringing moisture and thunderstorms into the area. Because of the heat and arid climate, the ground is quite hard and unable to absorb much of the precipitation that does fall. The water from these storms rushes to low-lying areas, often into a canyon or dried up river bed.

- Dam Breaks/Levee Failure: Dam failure or levee breaches can occur with little warning. Intense storms may produce a flash flood in a few minutes or hours while other failures and breaches can take much longer to occur, from days to weeks. Causes of dam failure vary from natural causes such as prolonged rainfall, landslides, earthquakes, or erosion to human causes such as improper maintenance and design, negligent operation, or sabotage and terrorism. Dam failures are categorized into three groups: overtopping, in which the water level exceeds the top of the dam; excessive seepage, in which water seeps through the ground; and structural failure, where part of the dam doesn't complete its job sufficiently.

The principal flood concerns for the county occur along the Sucarnochee River, Sandy Creek, and Whiterock Creek. The areas affected by the flooding of the Sucarnochee River are southeast Livingston and the Bellamy community. In the Bellamy area the following streets have been flooded in the past: Culbert, Lee Street, Parkway Street, Oak Street, Grove Street Davis Street, Haven Street, Hudson Street, Johnson Street, Reed Avenue, West Avenue, Gulley Street, South Street, and Pine Street. Information on residences and populations affected in this area can be found in the *Assessing Vulnerability* section of this plan. The primary areas of flooding from Sandy and Whiterock Creek are confined to the downstream reaches of the Sucarnochee River.

The county did suffer damages as a result of the Easter Floods of 1979, which affected many areas in Alabama, Mississippi, and Georgia. The primary areas affected were the Panola, Warsaw, and Mt. Pleasant communities in Sumter County. During this event, the Tombigbee River was higher at Epes than it had been since 1892. At Gainesville, the river was also at its highest since 1892 with measurements greater than that of a 100 year flood.

The *Alabama State Hazard Mitigation Plan* contains information on flood insurance properties and claims by county. Information from 1978-2012 was analyzed. There are 58 flood insurance

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properties in the county. Eleven claims totaling $111,222 have been filed with an average claim amount of $10,111. There is one repetitive loss property on file for Sumter County, which is a residential property.

The Sumter County Engineer was asked to provide a listing of county roads susceptible to flooding. The list he provided follows:

- Lock 3 Road
- Paces Landing Road
- Wire Rd 1 (near Cuba city limits)
- Snack Shop Road
- Sheffield Road- County Road 17
- Fred Dial Road
- Gainesville-Noxubee Road
- Turner's Estates Road.

NFIP flood maps for the entire county were reviewed. Zone A areas are subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Detailed hydraulic analyses have not been performed on these areas and no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply to these areas. Zone AE areas are subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Appendix #5 provides firmettes from flood maps illustrating flood areas in each jurisdiction. It is important to note that these are not full flood maps and do not cover all areas designated in the county. The following flood zones were identified:

- Cuba: A is along Alamuchee Creek in the southern portion of the city limits. See Appendix 2, map #1 and #2.
- Epes: Zone A runs along Jones and Wiggins Creek. The town is also susceptible to the effects of the Tombigbee River flooding. See Appendix 2, map #3.
- Gainesville: Zone A along Folsum Branch. Zone AE along Tombigbee River. See Appendix 2, map #4.
- Geiger: Zone A runs along Caney Creek on the east side of Geiger. Zone A along Hatchet Creek on the west side of Geiger. See Appendix 2, map #5.
- Livingston: Zone AE along Sandy Creek, Whiterock Creek, Sucaroochee River. Zone A along creeks and branches of Sucarnochee River. See Appendix 2, map #6-#15.
- York: Zones A in east side of York. Zone AE along Toomsuba and Alamuchee Creeks in southern York.
- Sumter County: Zone A runs along creeks in the county. Zone AE runs along the Tombigbee and Sucarnochee Rivers.

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Sumter County, Cuba, Livingston, Epes, Geiger and York all participate in the national Flood Insurance Program (NFIP). The Town of Gainesville is sanctioned by the program. The Town has chosen not participate due to concerns from residents regarding infringement of personal property rights. The Town also feels that it currently does not have access to the resources necessary for participation and compliance. The Town of Emelle is not mapped and classified as non-flood prone.

All municipalities, except Emelle, identified flooding when asked to designate hazards. The county also identified flooding as a concern in unincorporated areas. Flooding was classified as a moderate risk.

Hurricanes and Coastal Storms

Hurricanes are low-pressure systems over tropical or sub-tropical waters with organized convection present (http://www.aoml.noaa.gov/hrd/tcfaq/A1.html). The Atlantic hurricane season is from June through November. Hurricanes are ranked on the Saffir-Simpson Hurricane Wind Scale (Table 4.7).

Table 4.7 Saffir-Simpson Hurricane Wind Scale

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph 64-82 knot 119-153 km/h	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph 83-95 knot 154-177 km/h	Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3 (major)	111-129 mph 96-112 knot 178-208 km/h	Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4 (major)	130-156 mph 113-136 knot 209-251 km/h	Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5 (major)	157 mph or higher 137 knot or higher 252 km/h or higher	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Source: National Hurricane Center – NOAA
http://www.nhc.noaa.gov/aboutsshws.php
Last Accessed on 2/9/2015

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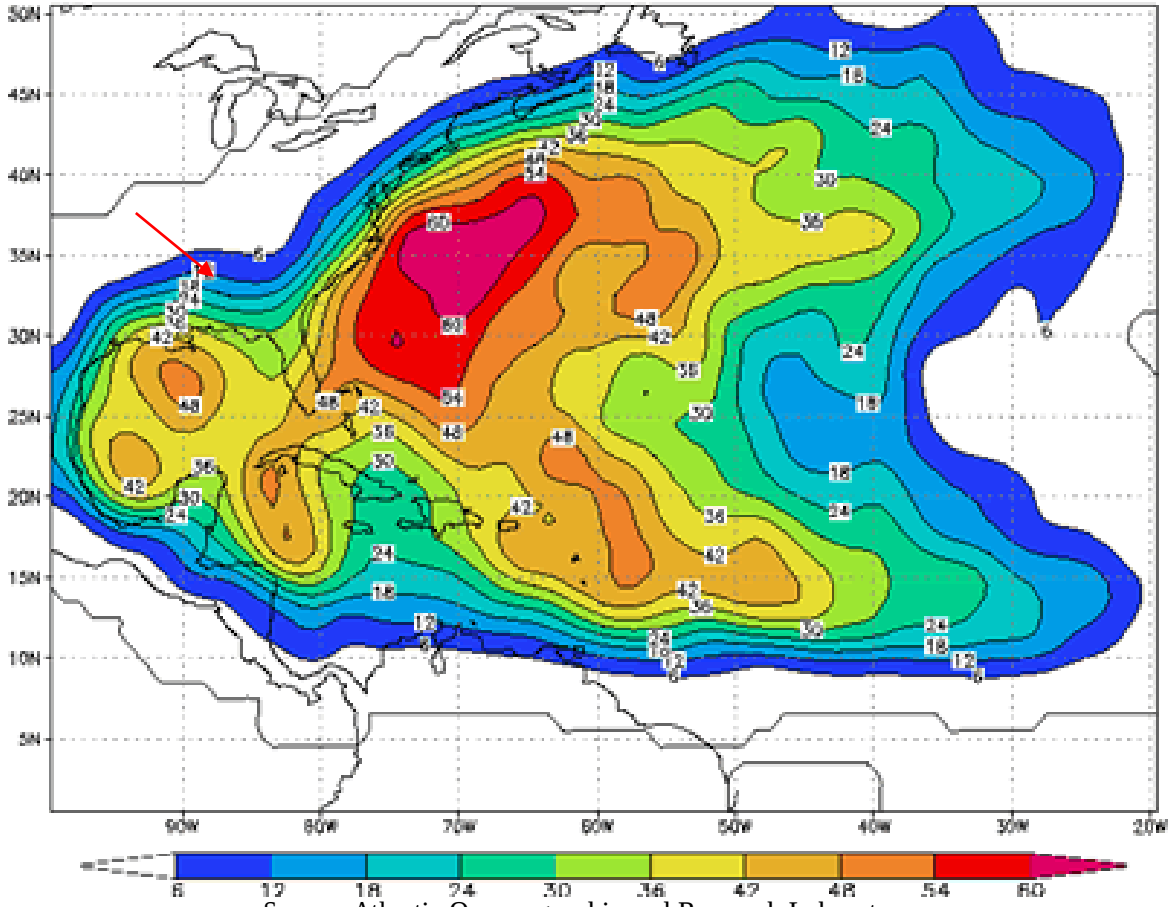
The Atlantic Oceanographic and Meteorological Laboratory analyzed hurricane activity from 1944-1999. A map showing probabilities of a strike that will affect the area sometime during the season was created. Figure 4.8 is the result of this analysis. It shows the results drawn from total hits from hurricanes or storms within one hundred miles of the location. Sumter County lies within the 12 and 18% probabilities.

Figure 4.8 Empirical Probability of a Named Storm



Source: Atlantic Oceanographic and Research Laboratory
http://www.aoml.noaa.gov/hrd/tcfaq/G11.html
Last accessed on 4/19/14

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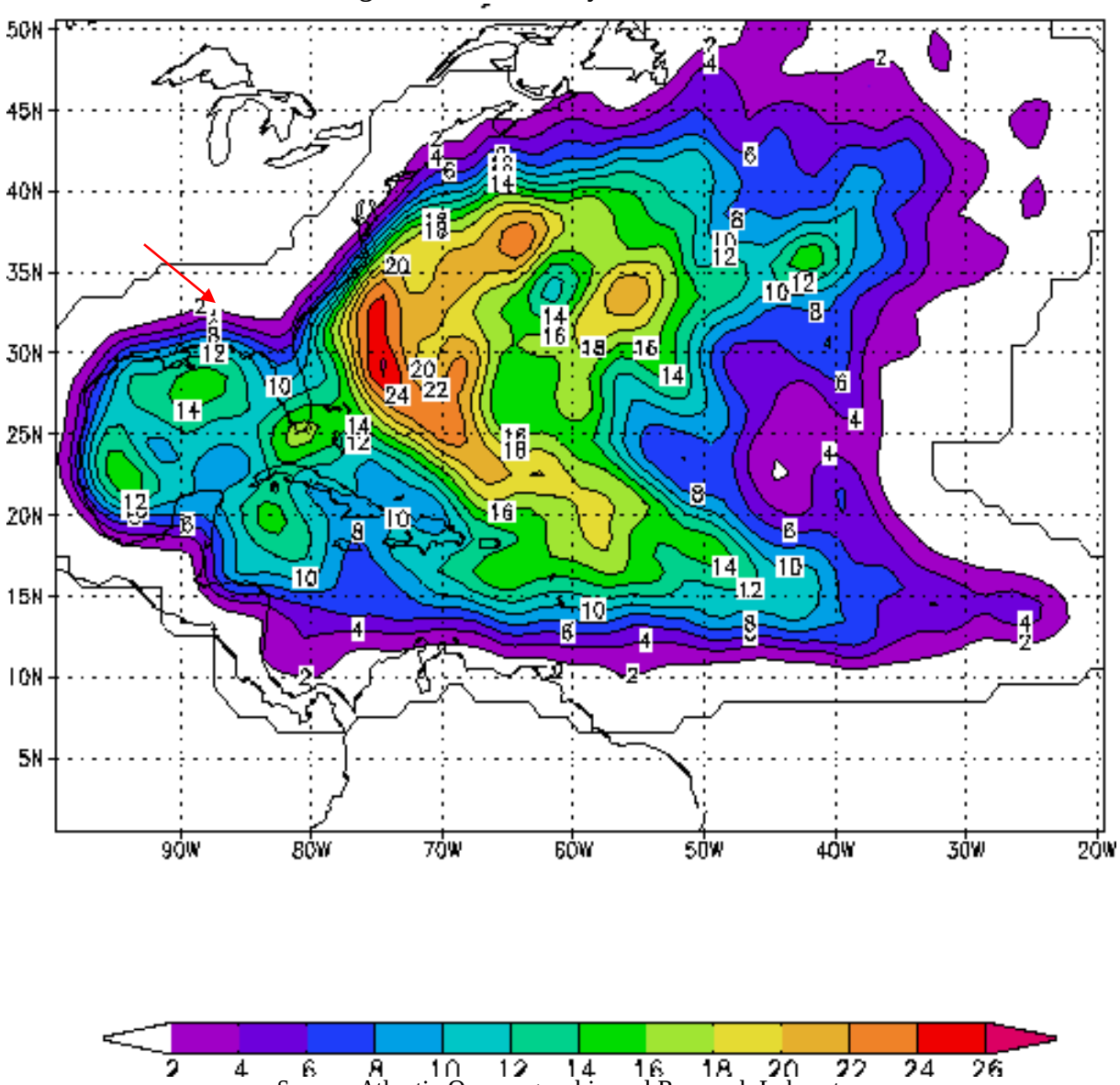
Figure 4.9 shows the results of analysis using hurricanes or storms that struck within sixty miles of a location. This figure illustrates that probability. Sumter County lies within the 2% probability.

Figure 4.9 Probability of a Hurricane



Source: Atlantic Oceanographic and Research Laboratory
http://www.aoml.noaa.gov/hrd/tcfaq/h_prob.gif
Last accessed on 4/19/14

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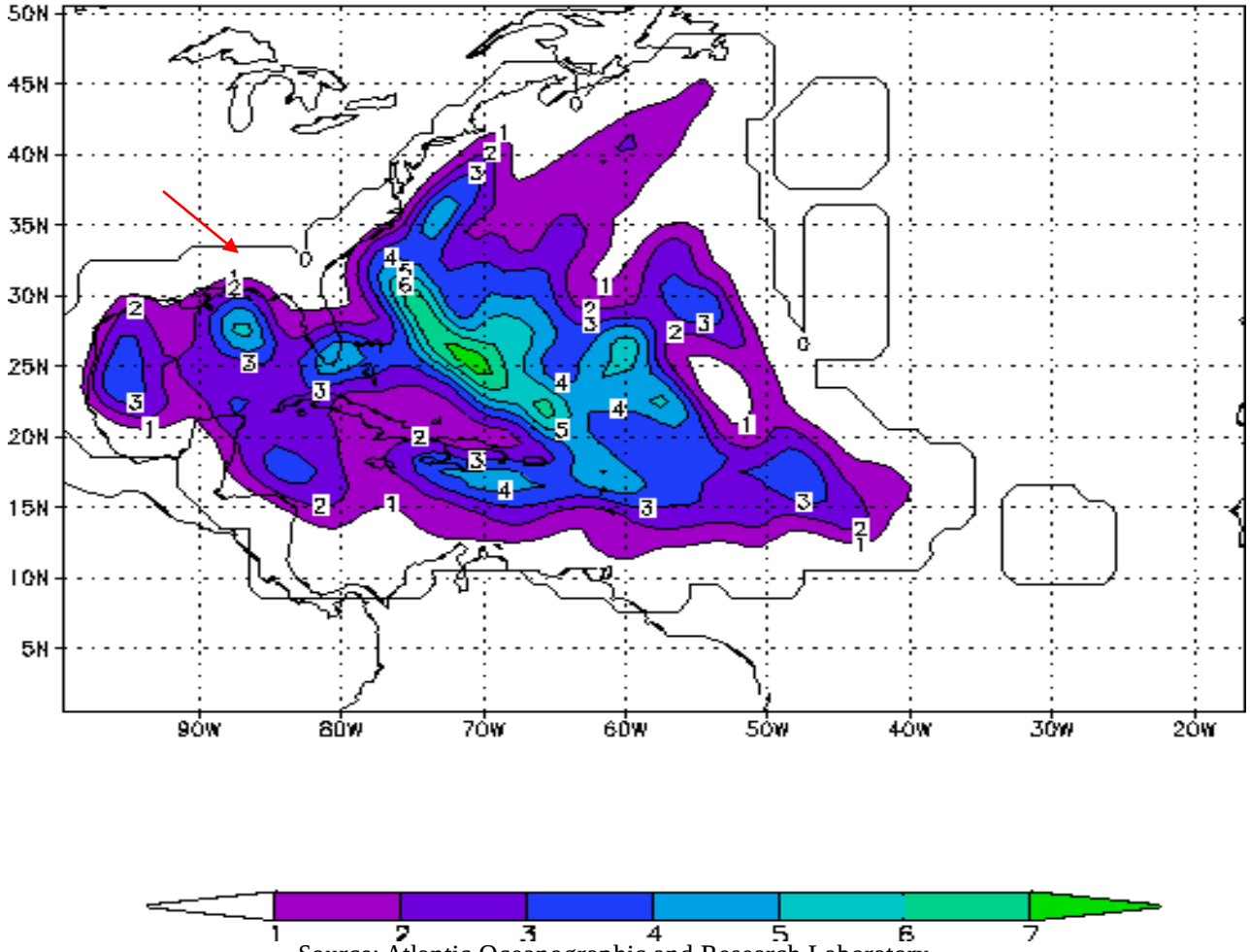
Figure 4.10 shows the probability of an intense hurricane affecting an area during the June through November season. An intense hurricane is defined as a Category 3, 4, or 5 storms. These probabilities were derived from analysis of hurricanes that hit within thirty miles of a location. Sumter County lies within the 0% probability.

Figure 4.10 Probability of an Intense Hurricane



Source: Atlantic Oceanographic and Research Laboratory
http://www.aoml.noaa.gov/hrd/tcfaq/ih_prob.gif
Last accessed on 4/19/14

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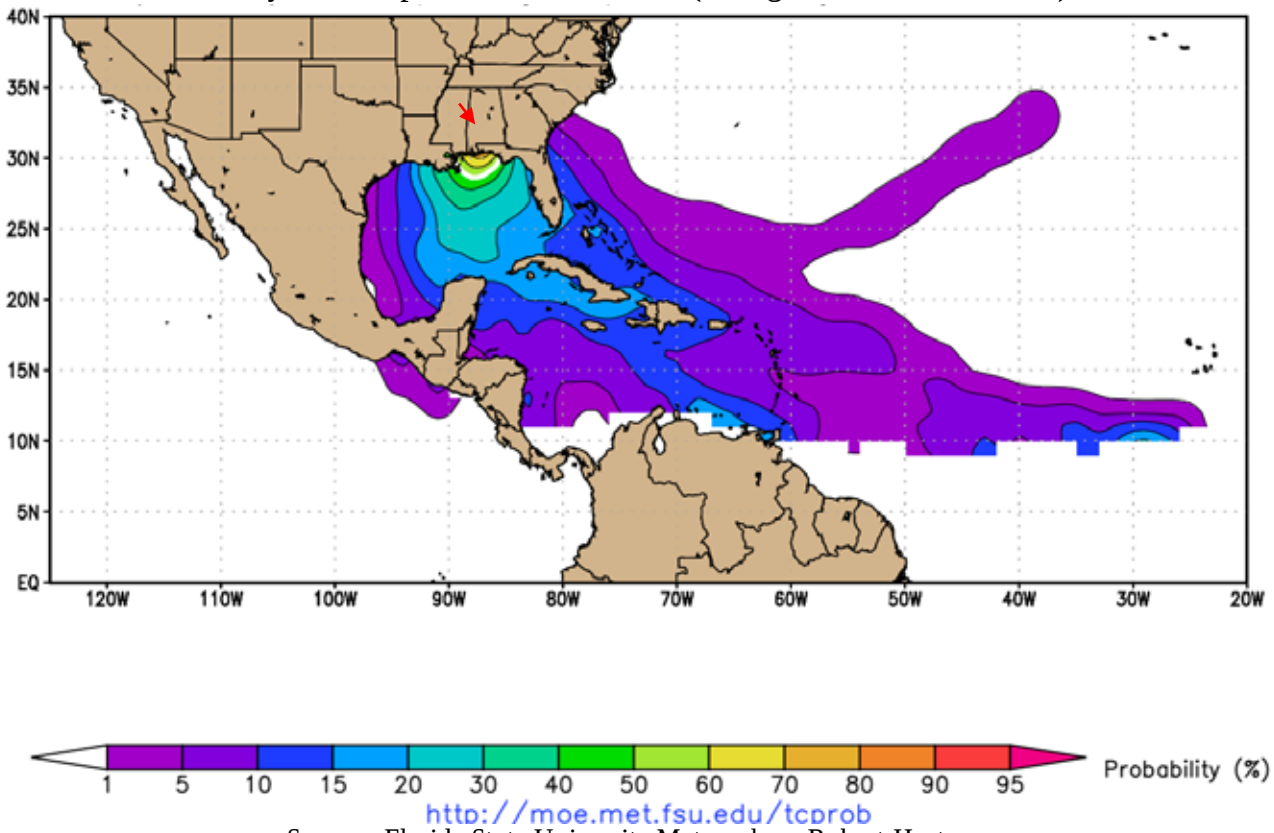
Florida State University's Meteorology Department also analyzed hurricane tracks. Their research included hurricanes occurring from 1886-2012. The following figures (4.11-4.13) depict the results of their research.

Figure 4.11 shows that based on FSU's research the probability of a hurricane of any intensity passing over Alabama is between 60% and 80%.

Figure 4.11 Probability of a Tropical Cyclone Eventually Passing over Alabama at Any Intensity Based upon a Given Position (Using 1886-2012 best track)



Source: Florida State University Meteorology-Robert Hart
http://moe.met.fsu.edu/tcprob
Last Accessed on 05/03/2014

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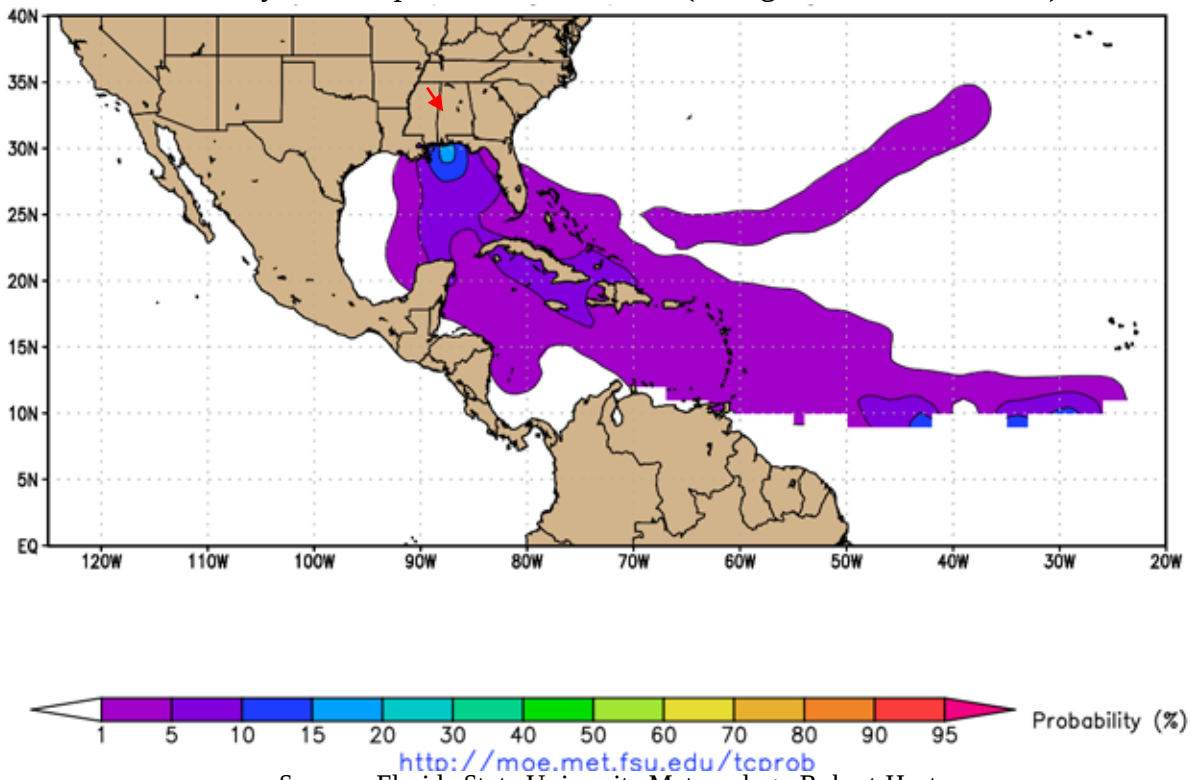
Figure 4.12 shows that the probability of a storm passing over Alabama with winds exceeding 64 knots (74 miles per hour) is between 15% and 20%.

Figure 4.12 Probability of a Tropical Cyclone Eventually Passing Ove Alabama at 64+ Knot Intensity Based upon a Given Position (Using 1186-2012 best track)



Source: Florida State University Meteorology-Robert Hart
http://moe.met.fsu.edu/tcprob
Last Accessed on 05/03/2014

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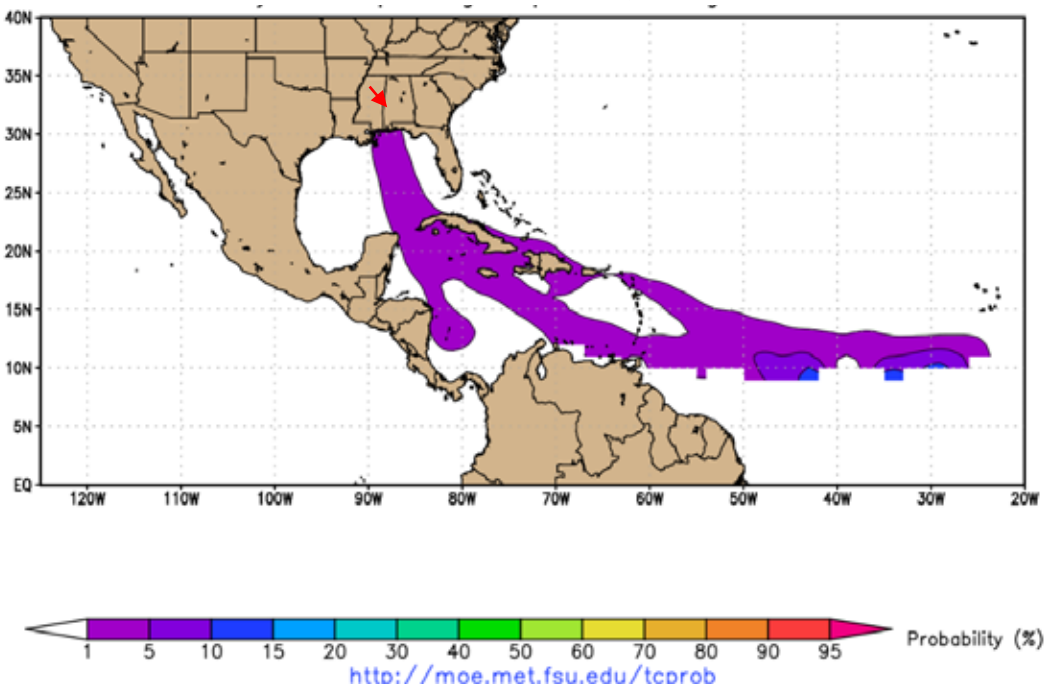
Figure 4.13 shows the probability of a cyclone passing over Alabama with winds greater than 96 knots (110 miles per hour) is between 1% and 5%.

Figure 4.13 Probability of a Tropical Cyclone Eventually Passing over Alabama at 96+ Knot Intensity Based upon a Given Position (Using 1186-2012 best track)



Source: Florida State University Meteorology-Robert Hart
http://moe.met.fsu.edu/tcprob
Last Accessed on 05/03/2014

In Sumter County the greatest threat from hurricanes and tropical storms is damage received from high winds, heavy rains, and spin off tornadoes. The landscape of Sumter County is heavily wooded, which leads to the possibility of significant tree damage and property damage. Debris removal becomes a major cost for local governments, especially due to impassable roads. According the county, the effects of the following storms have been felt in recent years:

- In 1995 Hurricane Opal brought high winds to Sumter County. Opal blew many trees down and left hundreds without power.
- In September 2004, Hurricane Ivan made landfall in Orange Beach, Alabama as a strong Category 3 hurricane. Sumter County felt the effects of Ivan also suffering significant property damage, due predominantly to high winds were widespread throughout the County. A significant amount of damage to the County's timber also occurred.
- In August 2005 Sumter County felt the after effects of Hurricane Katrina as trees and powerlines were damaged from strong storms.
- In August of 2008, the remnants of Tropical Storm Fay caused heavy rains and high winds in the county.
- In November of 2009, the remnants of Hurricane Ida caused heavy rains and high winds throughout the county.

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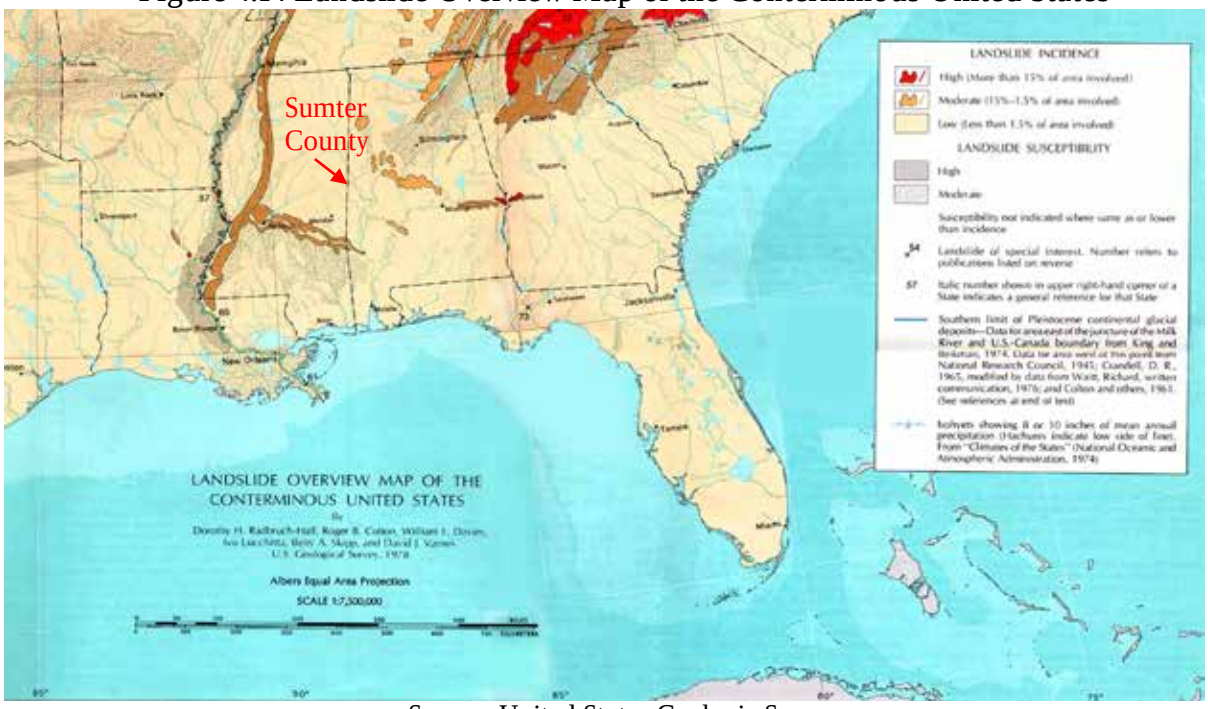
In Sumter County, the risk of damage from a hurricane occurring is the same countywide. The steering committee has designated hurricanes as a moderate risk.

Landslides

Landslides are the downward and outward movement of soil and rocks under the influence of gravity (http://www.gsa.state.al.us/). Naturally induced landslides occur as a result of weakened rock composition, heavy rain, changes in ground water levels, and seismic activity. Figure 4.14 is a landslide map of the conterminous United States illustrating susceptibility to landslides.

Figure 4.14 Landslide Overview Map of the Conterminous United States



Source: United States Geologic Survey
http://pubs.usgs.gov/pp/p1183/plate1.html
Last Accessed on 05/02/2014

Although Sumter County has no susceptibility and no incidence, the Geologic Survey of Alabama has had multiple reports of historic or current landslide incidences in the county. Table 4.8 and Figure 4.15 give basic information regarding the reported landslides.

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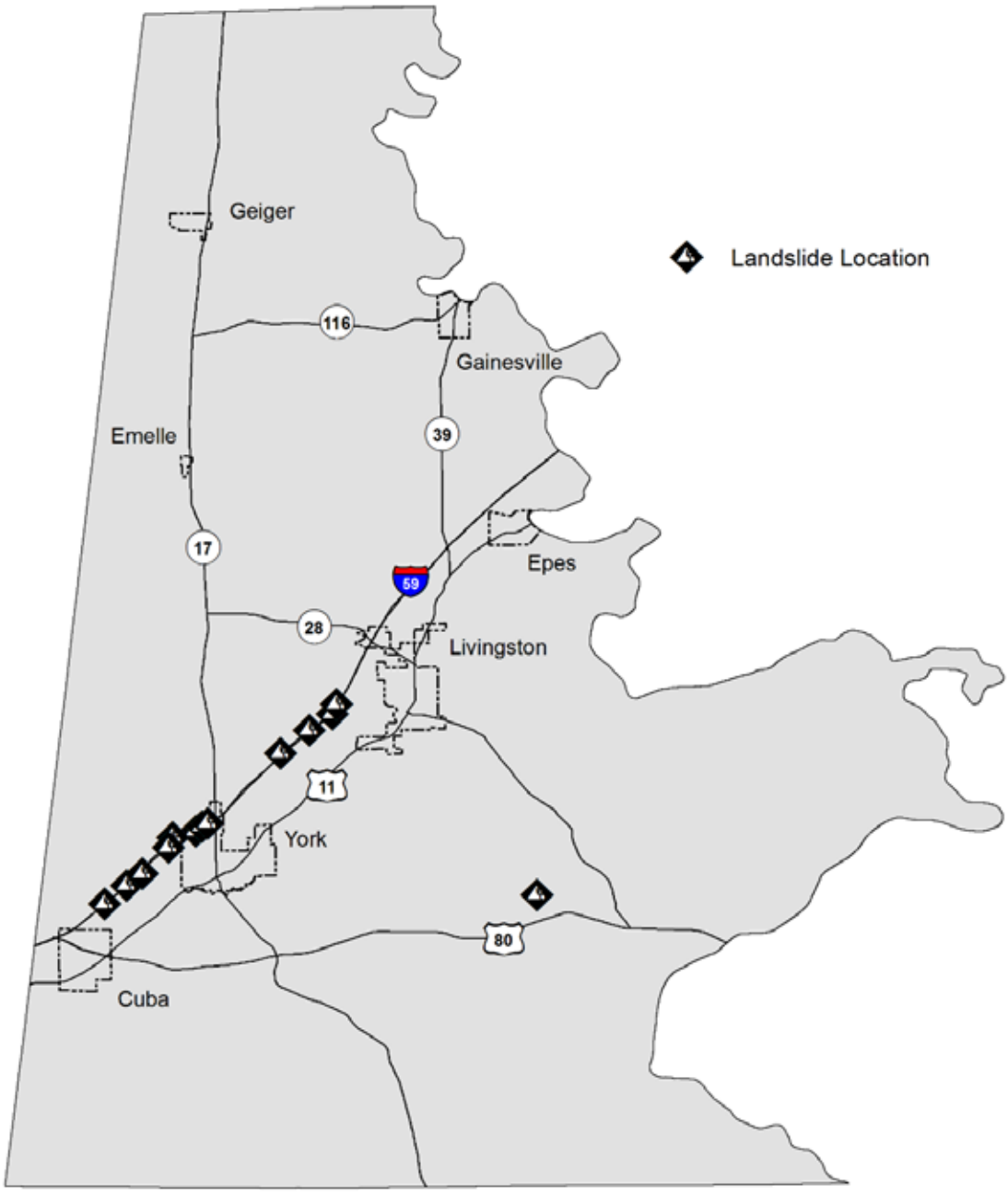
Figure 4.15 Past Occurrences of Landslides in Sumter County



Map created by the Alabama Tombigbee Regional Commission with data from Alabama Geological Survey, 2014

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Table 4.8 Past Occurrences of Landslides in Sumter County

General Location	Township, Range, Section	Geologic Formation
County Road 2	T18N, R4W, Section 36	Naheola Formation
County Road 21	T17N, R1W, Section 5	Porters Creek and Clayton Formations undifferentiated
United States Highway 80	T17N, R3W, Sections 20,21,&22	Naheola Formation, Nanafalia Formation, Alluvial and low terrace deposits
United States Highway 80	T17N, R1W, Sections 13 & 14	Naheola Formation
United States Highway 80	T17N, R1W, Sections 7	Alluvial and low terrace deposits
Alabama Highway 17	T17N, R3W, Section 9	Porters Creek & Clayton Formations.; alluvial and low terrace deposits
Alabama Highway 17	T19N, R3W, Sections 28,29,32, & 33	Porters Creek & Clayton Formations
Interstate 59	T17N, R4W, Sections 1&2	Naheola Formation
Interstate 59	T18N, R3W, Sections 19 & 30	Naheola Formation
Interstate 59	T18N, R3W, Section 20	Porters Creek & Clayton Formations
Interstate 59	T18N, R3W, Section 2	Porters Creek & Clayton Formations
Interstate 59	T19N, R3W, Section 36	Porters Creek & Clayton Formations
Interstate 59	T19N, R2W, Section 30 & 31	Porters Creek & Clayton Formations

Source: Geological Survey of Alabama, 2014

As seen in Figure 4.15, landslide occurrences in the county are mainly along highways and have been the result of human action. The Alabama Department of Transportation and Sumter County Engineer's office monitors roads within the county and follows established protocol when a slide is detected. Based on this information provided, the committee has decided landslides are a low risk hazard.

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Land Subsidence

Land subsidence is the collapse of the ground generally in areas with carbonate bedrock or underlying abandoned mines. Sumter County has an area in the northeastern portion of the county, which is underlain by carbonate rocks (Figure 4.16). There are no active areas of subsidence in central Sumter County (Figure 4.17); however, there are sinkholes in the county. Figure 4.18 shows the locations of these sinkholes. Due to no active areas of subsidence, the committee feels they are no risk to the county.

Figure 4.16

Figure 4.17

Source: Geological Survey of Alabama
http://www.gsa.al.state
Last accessed on 04/04/2014

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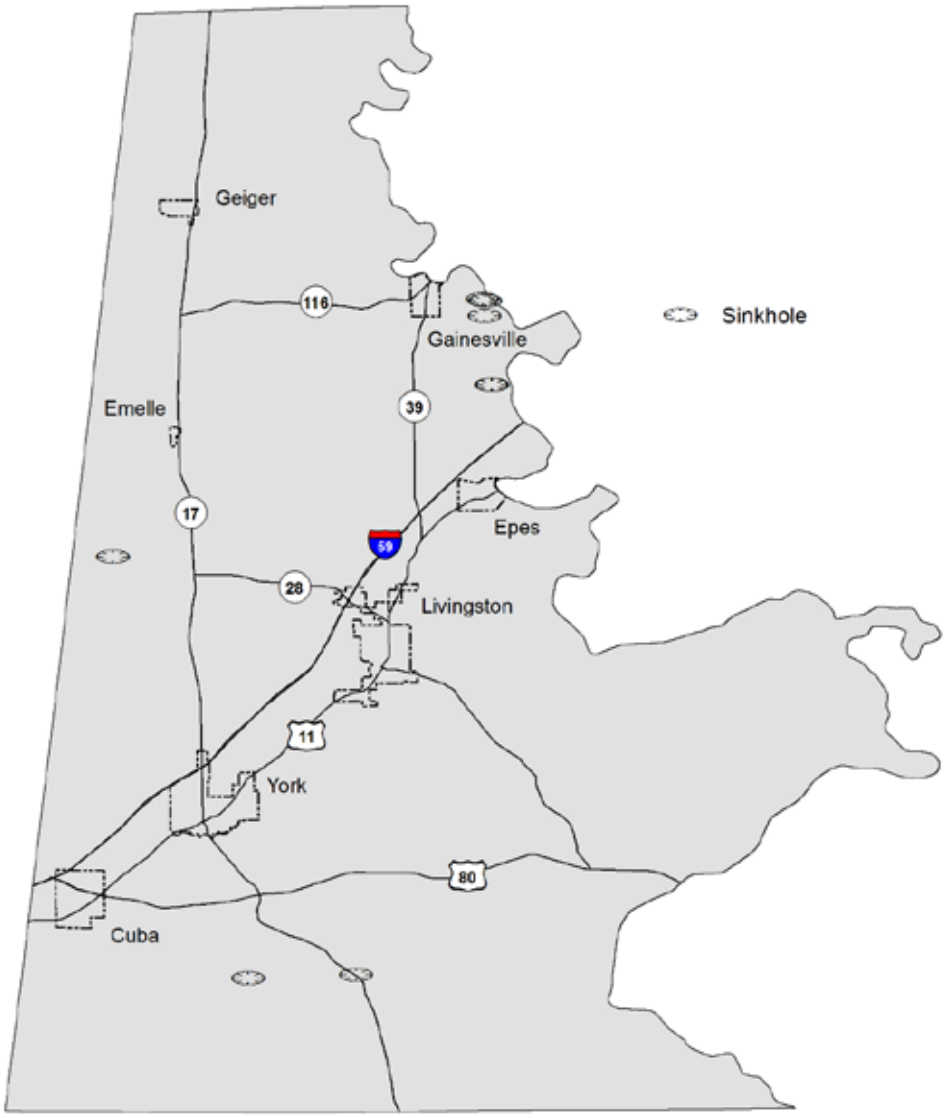
Figure 4.18 Sinkholes Identified in Sumter County



Map created by the Alabama Tombigbee Regional Commission with data from Alabama Geological Survey, 2014

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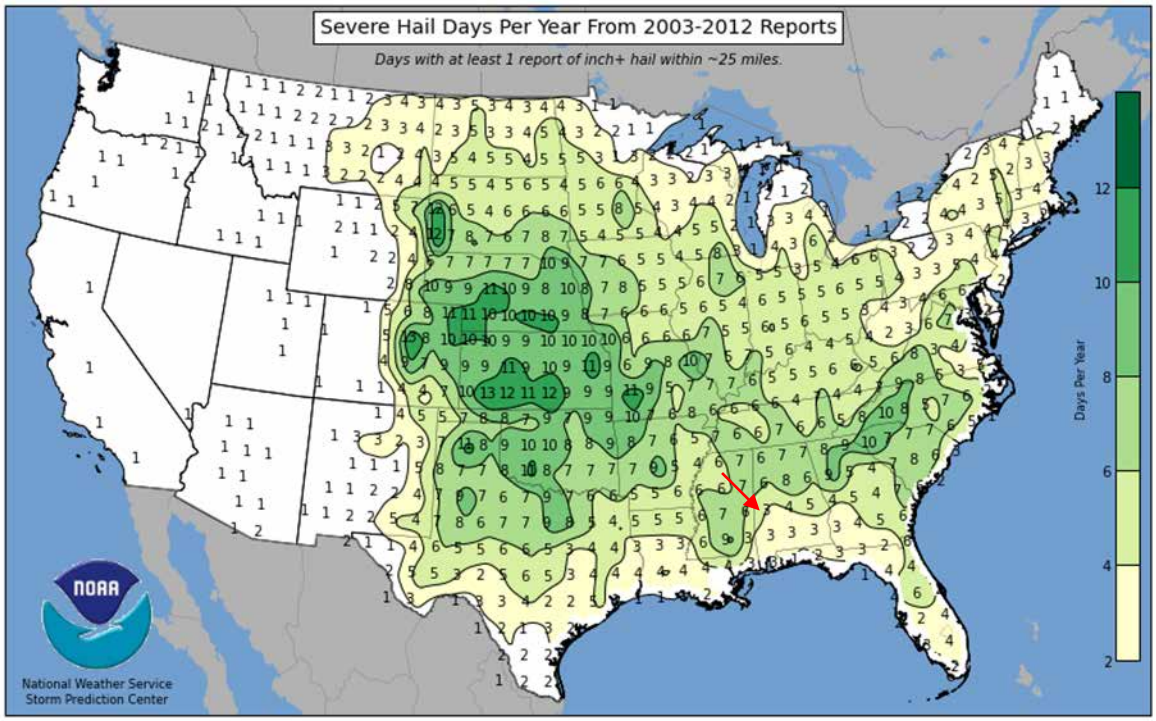
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)

Thunderstorms, lightning, hail, and high winds will all be grouped into the category of severe storms in this analysis. These type of storm events occur often especially during the spring and summer in Sumter County.

Hail is precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter. Hail forms when thunderstorm updrafts are strong enough to carry water droplets well above the freezing level. This freezing process forms a hailstone, which can grow as additional water freezes onto it. Eventually, the hailstone becomes too heavy for the updrafts to support it and it falls to the ground. Figure 4.19 illustrates the average number of severe hail days each year. Sumter County lies within the 3 days per year range.

Figure 4.19 Severe Hail Days per Year from 2003-2012 Reports



Source: National Oceanic and Atmospheric Administration
http://www.spc.noaa.gov/wcm/2013/HAIL.png
Accessed: 11/23/2014

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Tables 4.9 and 4.10 provide information on the Torro Hail Intensity Scale. In the past Sumter County has experienced hail up to H6 or hen egg size.

Table 4.9 TORRO Hailstorm Intensity Scale

	Intensity Category	Typical Hail Diameter (mm)*	Probable Kinetic Energy, J-m^2	Typical Damage Impacts
H0	Hard Hail	5	0-20	No damage
H1	Potentially Damaging	5-15	>20	Slight general damage to plants, crops
H2	Significant	10-20	>100	Significant damage to fruit, crops, vegetation
H3	Severe	20-30	>300	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	25-40	>500	Widespread glass damage, vehicle bodywork damage
H5	Destructive	30-50	>800	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40-60		Bodywork of grounded aircraft dented, brick walls pitted
H7	Destructive	50-75		Severe roof damage, risk of serious injuries
H8	Destructive	60-90		(Severest recorded in the British Isles) Severe damage to aircraft bodywork
H9	Super Hailstorms	75-100		Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	>100		Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

Source: The Tornado and Storm Research Organisation
http://www.torro.org.uk/site/hscale.php
Last Accessed 12/20/2014

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Table 4.10 Hail size and diameter in relation to TORRO Hailstorm Intensity Scale		
Size code*	Maximum Diameter (mm)	Description
0	5-9	Pea
1	10-15	Mothball
2	16-20	Marble, grape
3	21-30	Walnut
4	31-40	Pigeon's egg > squash ball
5	41-50	Golf ball > Pullet's egg
6	51-60	Hen's egg
7	61-75	Tennis ball > cricket ball
8	76-90	Large orange > Soft ball
9	91-100	Grapefruit
10	>100	Melon

* The Size Code is the maximum reported size code accepted as consistent with other reports and evidence.
Source: The Tornado and Storm Research Organisation
http://www.torro.org.uk/site/hscale.php
Last Accessed 12/20/2014

High winds are defined as winds 40 mph or greater lasting for an hour or longer, or winds of 58 mph or greater for any duration. During the spring and summer months these conditions are common in Sumter County. High winds can lead to tree damage, utility outages, and pose a risk to drivers.

"Lightning is a rapid discharge of electrical energy in the atmosphere. The resulting clap of thunder is the result of a shock wave created by the rapid heating and cooling of the air in the lightning channel. (http://www.lightningsafety.noaa.gov/resources/lightning3_050714.pdf)". During thunderstorms, winds within the storms cause collisions between various precipitation particles in the storm cloud. These collisions lead to very small ice crystals losing electrons and larger hail particles gaining electrons. Winds redistribute these causing a negative charge buildup near the middle and lower part of the storm and a positive buildup on the ground beneath the storm cloud. The charge difference eventually increases and the negative charge starts moving toward the ground. Its movement creates a conductive path toward the ground. When the negative charge from the cloud makes contact with the positive charge on the ground, current surges creating a visible flash of lightning.

Figure 4.20 shows the worldwide distribution of lightning strikes. Sumter County lies within the 20 flashes/km2/year range, which is significant.

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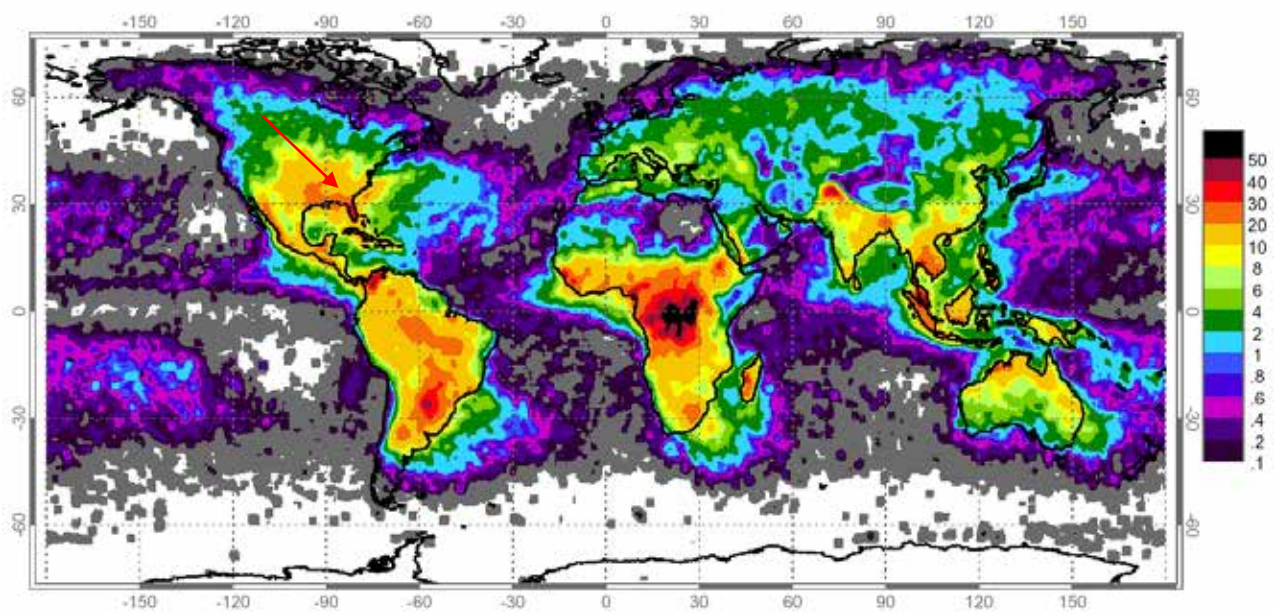
Figure 4. 20 Distribution of Worldwide Lightning Strikes
Units: flashes/km^2/yr.



Source: National Aeronautics and Space Administration
http://science.nasa.gov/media/medialibrary/2001/12/02/ast05dec_1_resources/lightningmap_large.gif
Accessed: 12/08/2014

"A thunderstorm is a local storm produced by a cumulonimbus cloud and accompanied by lightning and thunder (http://w1.weather.gov/glossary/index.php?letter=t)." According to the National Weather Service there are four types of thunderstorms:

- Ordinary Cell: A single cell consisting of a onetime updraft and onetime downdraft. They are short lived and typically not severe.
- Multi-cell Cluster: Thunderstorms that form in clusters with numerous cells in various stages of development merging together.
- Multi-cell Line: Thunderstorms which form in a line which can extend laterally for hundreds of miles. Also known as "squall lines', they can persist for many hours and produce damaging winds and hail. Tornadoes may form on the leading edge of squall lines, but they primarily produce "straight line" winds. Derechos are long-lived strong squall lines that can travel hundreds of miles and can produce considerable wind and hail damage.
- Supercell: Highly organized storms characterized by updrafts that can attain speeds over 100 mph. They are able to produce large hail and strong, violent tornadoes that can produce damaging outflow in excess of 100 mph.

Sumter County is susceptible to each of the four types of thunderstorms described here.

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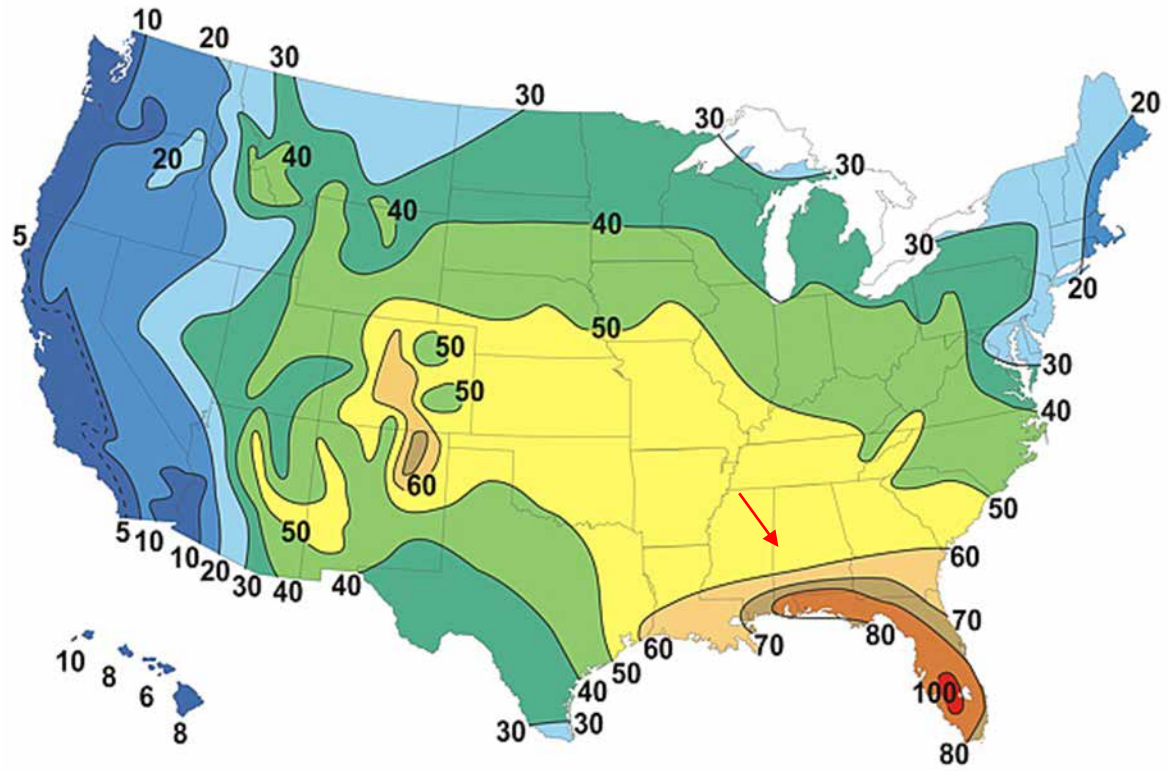
Figure 4.21 illustrates the average number of days of thunderstorms per year for the United States. Sumter County lies within the 50 days per year range.

Figure 4.21 Average Number of Thunderstorm Days Each Year



Source: National Oceanic and Atmospheric Administration
http://www.srh.noaa.gov/jetstream/tstorms/tstorms_intro.htm
Accessed on 11/23/2014

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All of these events have occurred historically in Sumter County. These events have resulted in property and crop damage on numerous occasions. These events are expected to occur in the future; therefore, they are considered a high risk hazard.

Severe Winter Storms (Snow and Ice)

Severe winter storms are associated with strong winds, extreme cold, ice, and snow. These storms are uncommon in Sumter County, but when they occur they have wide ranging impacts. Ice damages vegetation and often causes limbs to break and trees to fall. Motorists are unaccustomed to traveling in this weather, so accidents occur as a result. Also many homes and buildings, especially in rural areas, lack proper insulation or heating leading to risk of hypothermia. Municipalities generally do not have the resources on hand to deal with winter weather, such as salt, sand, and snow removal equipment. Due to the probability of occurrence being low, the county ranks snow and ice as a low risk hazard.

Soil Erosion

Soil erosion is the movement of soil by wind and water. The process is a natural one, but is often accelerated by human actions. The City of York has identified soil erosion as a natural hazard. The city is located on United Highway 11 in the western part of the county. The city has a rolling topography. During periods of heavy rainfall large amounts of soils are eroded off the slopes. Soil erosion is a low risk hazard for only the City of York.

Tornadoes

The National Weather Service defines a tornado as, "A violently rotating column of air in contact with the ground and extending from the base of a thunderstorm http://www.srh.noaa.gov/oun/severewx/glossary4.php#Tornado." The occurrence of tornadoes cannot be predicted, but past occurrences and basic weather patterns can be used to identify areas more susceptible.

Table 4.11 shows the Fujita-Pearson scale. The scale gives wind speeds and general damage descriptions. The original F scale uses damage caused by a tornado and relates the damage to the fastest 1/4-mile wind at the height of a damaged structure. The EF or Enhanced Fajita scale is an update to the original F-scale by a team of meteorologists and wind engineers, it was implemented in the U.S. in February 2007. It uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage to 28 indicators. Historically, the strongest tornado the county has experienced has been an EF-3.

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Table 4.11 Fujita- Pearson Tornado Scale

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: http://www.spc.noaa.gov/faq/tornado/ef-scale.html
Last Accessed on 2/9/2015

Figure 4.22 shows tornado activity per 1,000 square miles, Sumter County falls in the one to five tornados per square mile range. The United States Wind Zone map (Figure 4.23) shows how intense and frequent strong winds occur across the United States. Sumter County is lies in Wind Zone IV, which has design wind speed of 250 miles per hour. Design wind speed is the wind speed that homes should be constructed to withstand. Locations within this zone have historically had the most intense and frequent occurrences of tornadoes and strong winds.

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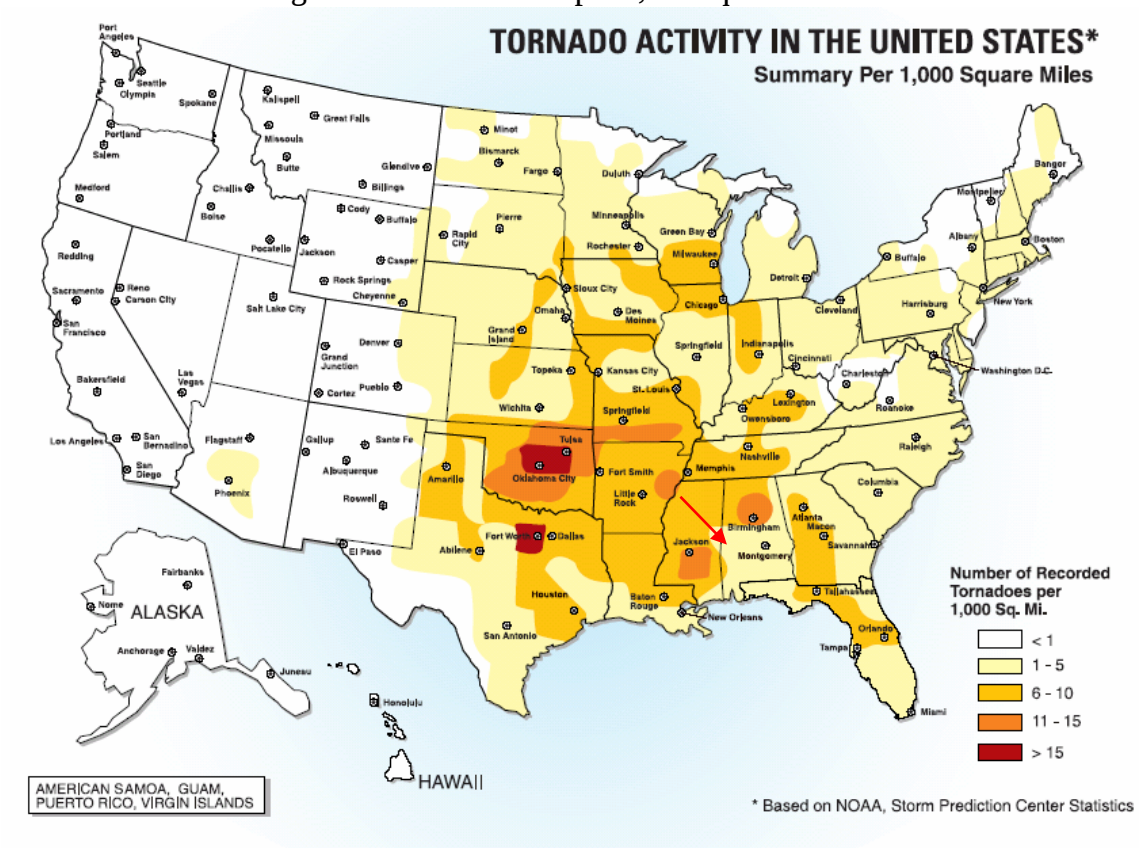
Figure 4.22 Tornadoes per 1,000 square miles.



Source: Federal Emergency Management Agency
http://www.fema.gov/pdf/library/2ismsec1.pdf
Last accessed on 07/27/2014

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Figure 4.23 Wind Zones in the United States

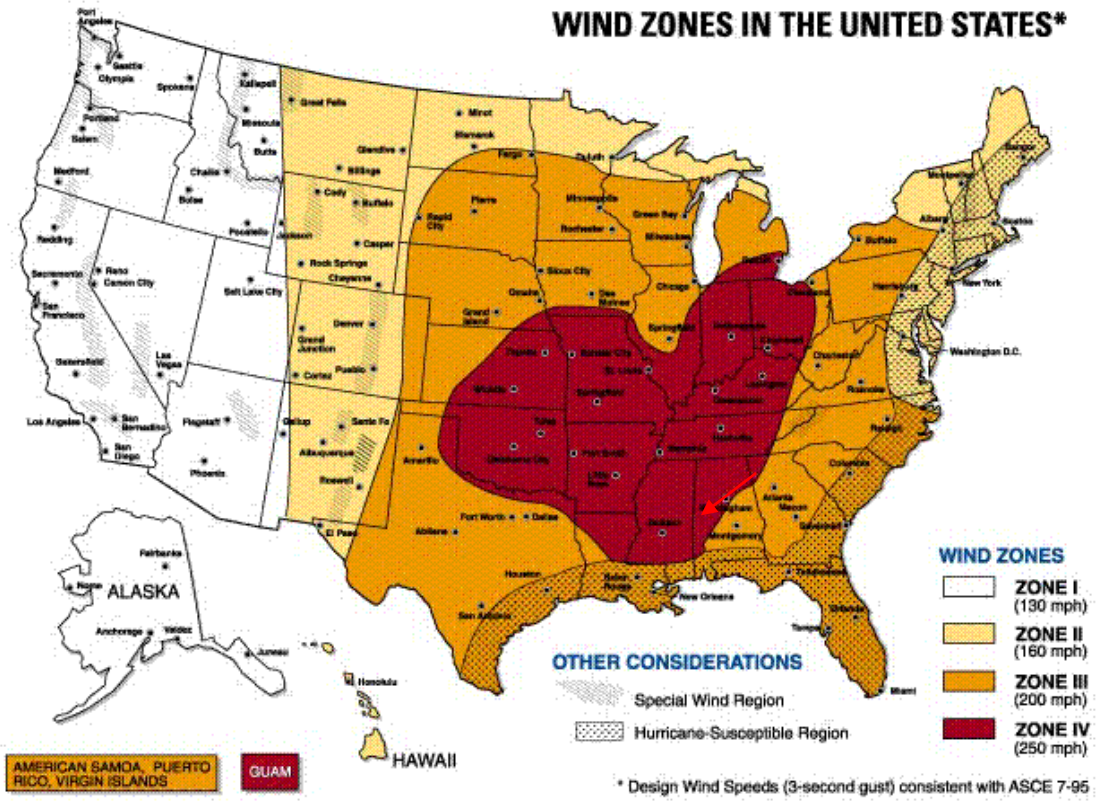

Figure I.2 Wind zones in the United States

Source: Federal Emergency Management Agency
http://www.fema.gov/graphics/fima/tsfsm01.gif
Last accessed on 07/27/2014

Since the last mitigation plan update, there have been numerous tornadoes in Sumter County. The county was hit especially hard in the spring of 2011. The following is a brief description of these events:

- On April 24, 2010 straight line winds affected Sumter County. Also a brief EF-0 tornado was reported near the intersection of CR 16 and CR10. A path of sporadic tree damage, as well as minor damage to the roof of a home in Ward occurred as a result of these straight line winds. A woman was trapped in her vehicle because of falling trees near AL17 and CR 42. No damage that occurred was directly related to the tornado. Straight line winds were estimated to be around 80 mph and the width of the damage path was 1000 yards at its widest point.

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NWS Birmingham

NWS Birmingham

Ø On April 15, 2011 an EF-2 tornado touched down near US Highway 80 at Mile Marker 3 where several large trees were snapped. The tornado continued northeast where it crossed Alabama Highway 17 where significant damage was sustained to two residences and two outbuildings were completely destroyed. Further northeast, the tornado lifted near County Road 13 about 7 miles south of Livingston.

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Ø On April 15, 2011 an EF-2 tornado touched down along Dan Mitchell Road south of Alabama Highway 116, six miles west southwest of Gainesville. It produced major roof damage to a house in this area. The tornado moved east where it snapped or uprooted dozens of hardwood trees and damaged several houses. The tornado lifted 0.5 miles west of State Route 39, one mile south of Gainesville.

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- On April 15, 2011 an EF-3 tornado affected Sumter County. Winds were estimated around 150 mph and this tornado was witnessed by dozens of people and storm spotters. The tornado touched down in Neshoba County Mississippi. The tornado continued into Alabama, specifically the Geiger area. Several homes and businesses sustained extensive damage. The tornado continued east where thousands of trees were either snapped or uprooted. The tornado eventually lifted near the Tombigbee River near the Sumter and Greene County Line. The total tornado damage path was 48.52 miles and was rated an EF3 in Kemper County Mississippi and in Sumter County Al.

- On April 27, 2011 an EF-2 tornado left a path of continuous damage from extreme southeast Sumter County across central and northeast Marengo County into extreme southwest Perry County. The tornado moved out of northern Choctaw County just north of Oakchia, then it crossed extreme southeast Sumter County south of County Road 42 and Lock 3 Road. The tornado was an EF-2 tornado at this point, where it uprooted and snapped trees in a 350 yard wide path.
- On April 27, 2011 an EF-2 tornado touched down in Kemper County Mississippi, near Scooba, and tracked northeast into Sumter County, Alabama at a point just north of Henley Road, northwest of Geiger. The tornado continued as an EF2 rating as it entered Alabama, with winds of 130 mph. It knocked down trees along Mt Tabor Road and AL Hwy 17. The tornado caused extensive tree damage along CR 34, near Panola, where it knocked down an entire section of pine forest. The average path width in Sumter County is 0.5 mile (880yds). The tornado continued northeast across north Sumter County and moved into southern Pickens County just west of CR 85.
- Whitfield: On November 16, 2011 an EF-2 tornado touched down in Whitfield and moved to the northeast. Along its path, approximately 150 softwood trees were snapped, 50 hardwood trees were uprooted, and five outbuildings were damaged. Six homes and one double wide mobile home were also damaged. One home along County Road 42 was destroyed causing 1 injury.

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- On January 12, 2012 an EF-0 tornado with winds of 75 MPH, touched down along Highway 11 about 5 miles northeast of Livingston, snapping and uprooting a few small soft and hardwood trees. The tornado then traveled northeast toward County Road 39 and McCainville Road, where additional trees were damaged, along with minor damage to an outbuilding. The tornado lifted along McCainville Road.

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- On January 23, 2012 an EF-0 tornado with maximum winds speeds of 85 mph touched down just southeast of Panola, along S. H. and G. Drive, where it caused significant roof damage to one single family residence. As the tornado moved northeast towards Marby Heights, another home sustained minor siding damage. The tornado lifted shortly after crossing Marby Heights.

- On January 3, 2015 an EF0 tornado touched down just west of Pretty Branch Road along the Norfolk Southern Railroad, about 0.5 miles east of Cuba. The tornado tracked northeast downing several large hardwoods and caused damage to the roof and anchoring system of a manufactured home as it crossed Pretty Branch Road and the railroad track. The tornado moved parallel to the railroad track downing approximately one dozen trees. The tornado lifted just west of Old Livingston Road.

- On January 3, 2015 an EF1 tornado touched down along State Highway 116 between Old Bodka Road and State Highway 17. The tornado traveled northeast and lifted near Old Bodka Road and Bodka Creek. The most concentrated damage was near Old Bodka Road where hundreds of trees were snapped off or uprooted.

The *State of Alabama Hazard Mitigation Plan* identifies Sumter County as one of the seven most threatened counties with regards to high wind. Due to the county's historical occurrences, climate, and location the county considers tornadoes a high risk hazard.

Tsunamis

"A tsunami is a sea wave of local or distant origin that results from large-scale seafloor displacements associated with large earthquakes, major submarine slides, or exploding volcanic islands (http://earthquake.usgs.gov/image_glossary/tsunami.html)." Tsunamis occur predominately in the Pacific Ocean and more specifically as a result of seismic activity in the "Ring of Fire" of the Pacific Rim. Sumter County is not located in an area at risk for tsunamis.

Volcanoes

Volcanoes are accumulations of volcanic materials erupted through volcanic vents on Earth's surface. Within the United States the risk from volcanic activity is only prevalent in the Pacific Northwest, Alaska, and Hawaii. The state of Alabama, including Sumter County, is not identified as being at risk for volcanic activity.

Wildfire

Wildfires are responsible for burning thousands of acres of land each year. These fires are uncontrolled and in dry conditions can spread rapidly through the surrounding vegetation and in some cases structures. There are two types of wildfires; these are wildland fires and urban-wildland interface fires. Wildland fires are those fires that occur in areas where the only development is utilities or infrastructure. Urban-wildland fires occur in areas were development occurs near or within the vegetative cover.

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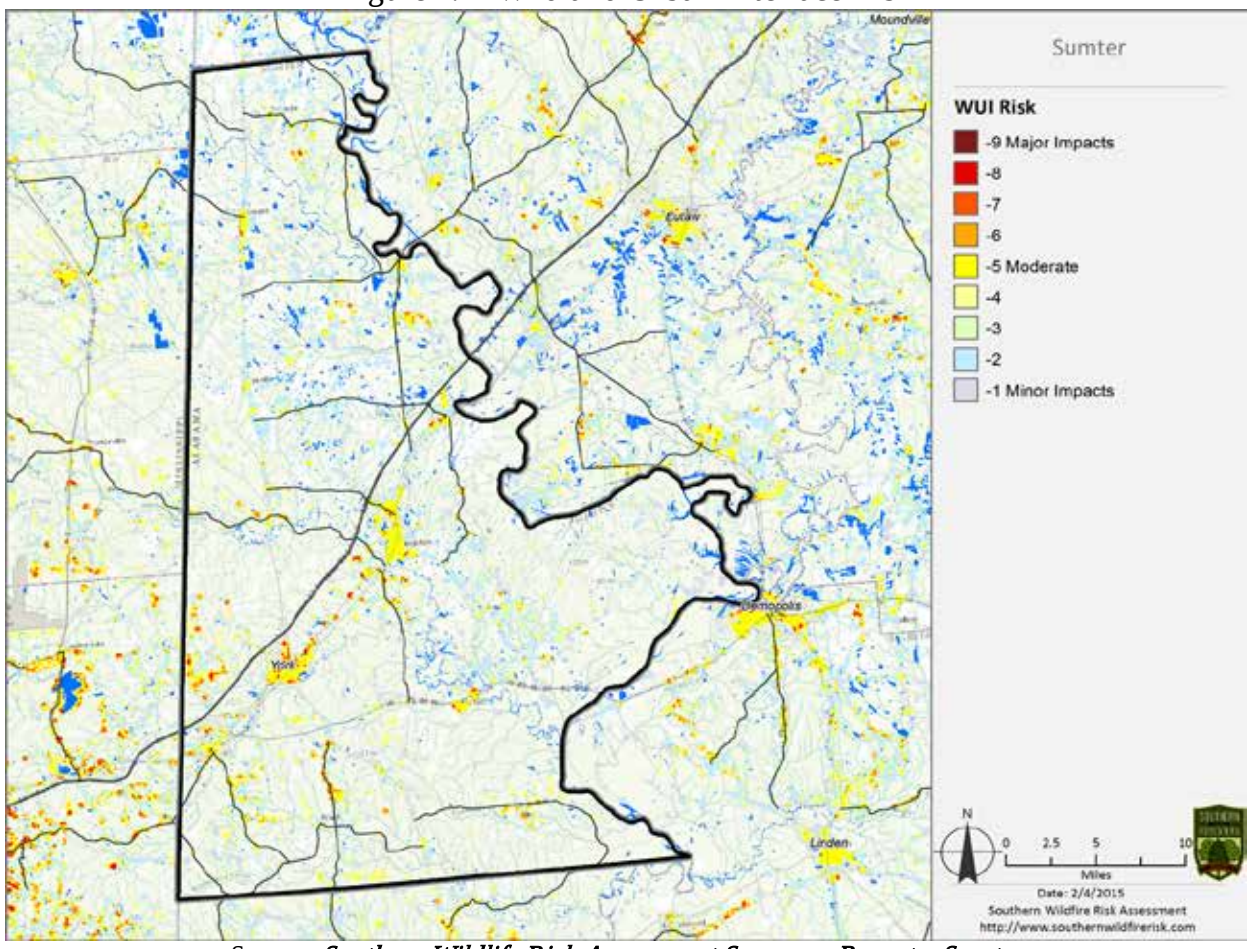
Sumter County used the *Southern Wildlife Risk Assessment Summary Report – Sumter* to analyze the county's susceptibility to wildfires. Figure 4.24 illustrates the Wildland Urban Interface (WUI) Risk Index layer. The WUI Risk is a rating of the potential impact a wildfire would have on people and their homes. It can be seen that two of the larger areas of greater impact are in and around York and Livingston. There are also a number of unincorporated areas classified with at least a moderate risk. Table 4.12 shows that approximately 96,723 acres of the land area in the county is classified as experiencing moderate or above impacts from WUI fires.

Figure 4.24 Wildland Urban Interface Risk



Source: ***Southern Wildlife Risk Assessment Summary Report – Sumter***
Report generated 2/4/2015

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Table 4.12 Wildland Urban Interface Risk Index for Sumter County

Class	Acres	Percent
-9 Major Impacts	3	0.0%
-8	483	0.5%
-7	1,521	1.6%
-6	2,475	2.6%
-5 Moderate	11,137	11.5%
-4	20,555	21.3%
-3	11,300	11.7%
-2	31,719	32.8%
-1 Minor Impacts	17,530	18.1%
Total	**96,723**	**100.0%**

Source: ***Southern Wildlife Risk Assessment Summary Report – Sumter***
Report generated 2/4/2015

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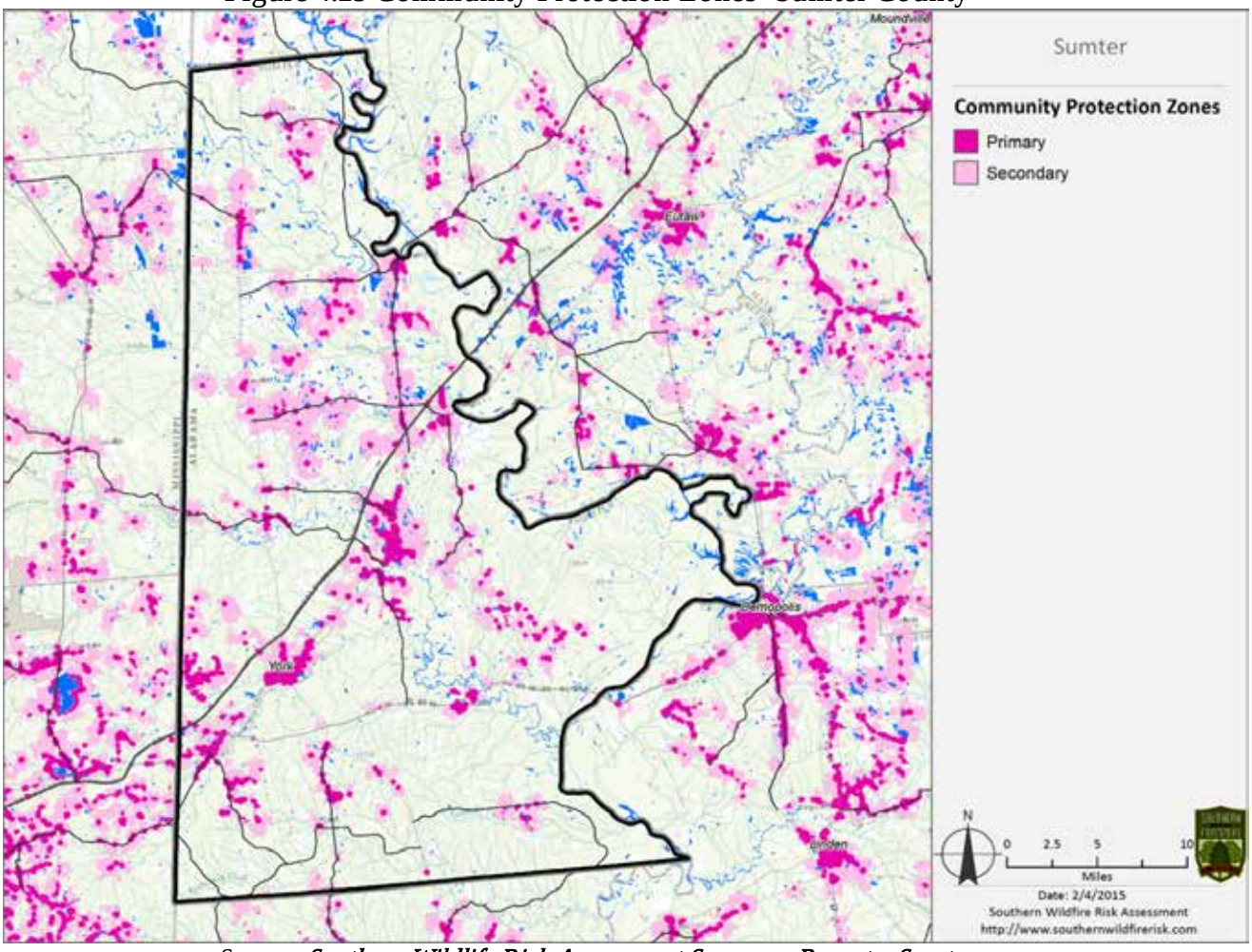
Figure 4.25 depicts Community Protection Zones (CPZ) in Sumer County. These zones represent those areas considered the highest priority for mitigation planning activities. These zones are based on population densities and surrounding fire behavior potential. Secondary CPZs are designated using rate of spread data to determine the areas that are within a 2-hour fire spread distance. It can be seen that primary CPZs are primarily designated in incorporated areas. As seen in Table 4.13, approximately 25,181 acres of land in the county is in a primary CPZ.

Figure 4.25 Community Protection Zones- Sumter County



Source: ***Southern Wildlife Risk Assessment Summary Report – Sumter***
Report generated 2/4/2015

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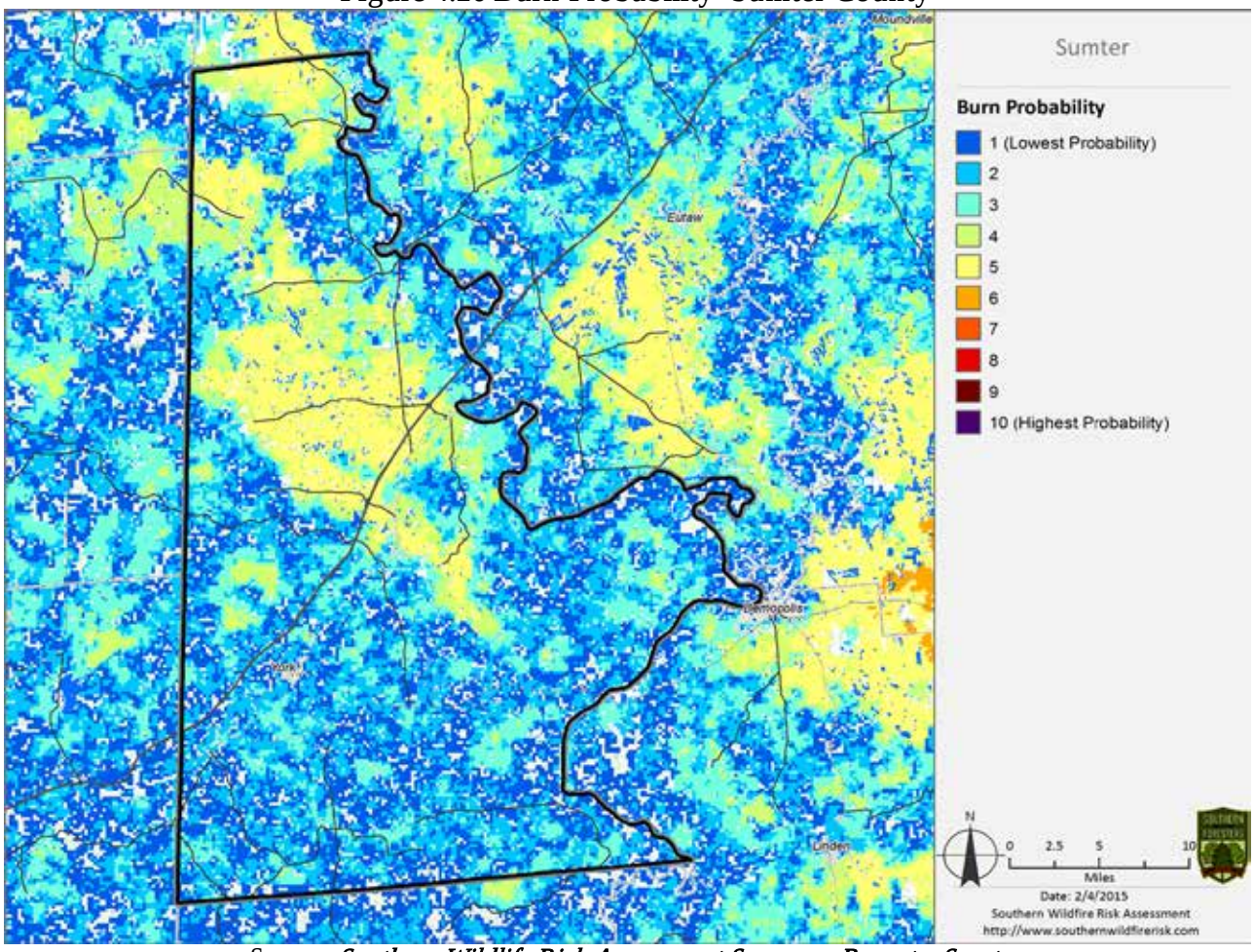
Table 4.13 Acres in Primary and Secondary CPZs for Sumter County

Class	Acres	Percent
Primary	25,181	24.7%
Secondary	76,806	75.3%
Total	**101,987**	**100.0%**

Source: ***Southern Wildlife Risk Assessment Summary Report – Sumter***
Report generated 2/4/2015

Figure 4.26 shows the burn probability for Sumer County. The burn probability of an area is the probability of an area burning given current landscape conditions, percentile weather, historical ignition patterns and historical fire prevention and suppression efforts. The areas with the highest burn probability are located in the northern half of the county. Table 4.14 shows that the no area in the county has over a moderate burn probability.

Figure 4.26 Burn Probability- Sumter County



Source: ***Southern Wildlife Risk Assessment Summary Report – Sumter***
Report generated 2/4/2015

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Table 4.14 Acres in Each Burn Probability Category for Sumter County

Class	Acres	Percent
1	136,452	26.6%
2	160,055	31.2%
3	99,018	19.3%
4	54,736	10.7%
5	62,358	12.2%
6	0	0.0%
7	0	0.0%
8	0	0.0%
9	0	0.0%
10	0	0.0%
Total	**512,618**	**100.0%**

Source: ***Southern Wildlife Risk Assessment Summary Report – Sumter***
Report generated 2/4/2015

The Sumter County Forestry Commission Office provided fire occurrence and acres burned for the years 2010-2014. Over the five year period the Forestry Commission responded to 68 fires, which burned 351 acres. More detail of fires and acres burned by year is provide in Appendix #6. Based on the data provided by the forestry office and the *Southern Wildlife Risk Assessment Summary Report – Sumter*, the committee classifies wildfire has a high risk.

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B. AREA AFFECTED BY EACH HAZARD

Table 4.15 illustrates the geographic areas susceptible to each hazard identified in the risk assessment. Although all areas are susceptible to the same hazards, the extent to which they are susceptible varies. The susceptibility also may vary within a jurisdiction. An example is wildfire susceptibility, while all areas are in fact susceptible; those areas with little or no defensible space are more susceptible. Areas also may have different susceptibility to flooding. Areas of lower elevation or poor drainage are more susceptible than higher better-drained areas.

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Table 4.15 Hazard Summary for Sumter County

Hazard	Where Identified	How Identified	Why Identified	Why Not Identified
Avalanche (no risk)				Location
Coastal Erosion (no risk)				Location
Dam Failure (low risk)	UWA Lake LU dam is a high risk dam, Heflin Lock & Dam in Gainesville is high risk, Lake Louise dam is a high risk for York	National Inventory of Dams, Local officials	Potential for property loss and loss of life	
Earthquakes (low risk)	Livingston Fault Zone	Geological Survey of Alabama	One fault zone in county, past occurrences	
Expansive Soils (low risk)	Some Unincorporated areas; sections of Livingston, Emelle and York	Review of Sumter County soil survey	Presence in county	
Extreme Heat & Drought (high risk)	Entire County and all jurisdictions	Local input FEMA Extreme Heat & Drought Backgrounder	Local concern Occurrences over past four years	
Flood (including flash flooding) (Flash flooding is a high risk, while river flooding is considered to be a low risk)	Unincorporated areas along Tombigbee River Areas in Bellamy and City of Livingston; along Sucarnochee River	FIRM maps Local officials	Bellamy flood zones Flash flooding: local concern, probability of occurrence River flooding: along Tombigbee River, Sucarnochee River	

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Table 4.15 Hazard Summary for Sumter County

Hazard	Where Identified	How Identified	Why Identified	Why Not Identified
Hurricanes (moderate risk)	Entire county including all jurisdictions	Past occurrences Local input Risk assessment	Past effects and damage	
Landslides (low risk)	Areas throughout the county	Past occurrences, local input	Past occurrences, local input	
Land Subsidence (no risk)				Location
Severe Storms (hail, high winds, lightning, & thunderstorms) (high risk)	Entire County and all jurisdictions	Local input Past occurrences	Frequency, Local concern, past damages	
Severe Winter Storms (Snow and Ice) (low risk)	Entire County and all jurisdictions	Local input	Local input	
Soil Erosion (low risk-York)	City of York	Local input	Local input	
Tornado (high risk)	Entire County and all jurisdictions	Local input Past occurrences Risk assessment	Frequency Local concern Deadliness Wind zone designation	

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Table 4.15 Hazard Summary for Sumter County

Hazard	Where Identified	How Identified	Why Identified	Why Not Identified
Tsunami (no risk)				Location
Volcano (no risk)				Location
Wildfire (high risk)	Entire County and all jurisdictions	Local input Risk assessment by Alabama Forestry Commission	Amount of forested land Risk Factors	

*The Sumter County Water Authority, Sumter County Opportunity, Inc., and Sumter County School Systems' facilities are located throughout the County meaning their risks vary by location. It should be understood the water authority's and school systems' risk is a conglomeration of all jurisdictions risks.

C. EXTENT AND IMPACT OF EACH IDENTIFIED HAZARD

The extent and impact of each hazard is addressed in Table 4.16. The information in this table is based on how bad each hazard could be in the county.

Table 4.16 Extent and Impact of Identified Hazards

Hazard	Unincorporated	Cuba	Emelle	Epes	Gainesville	Geiger	Livingston	York
Avalanche								
Coastal Erosion								
Dam Failure					Heflin Lock & Dam failure could cause extensive environmental damage, damages to utilities		Lake LU dam could cause extensive damage on UWA campus, loss of life, inundation of apartments	Lake Louise dam failure could cause death and property loss in York, inundation of 50-60 houses
Earthquakes								
Expansive Soils	Structural Damage to structures built on soil	Structural Damage to structures built on soil	Structural Damage to structures built on soil	Structural Damage to structures built on soil	Structural Damage to structures built on soil	Structural Damage to structures built on soil	Structural Damage to structures built on soil	Structural Damage to structures built on soil
Extreme Heat and Drought	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility	Temperatures above 100°,D4 drought, crop loss, public health concern, wildfire susceptibility
Flood (inc. flash)	Up to 7-8 feet of water leading to road closures, property	Up to 7-8 feet of water leading to road closures, property	Up to 7-8 feet of water leading to road closures, property	Up to 7-8 feet of water leading to road closures, property	Up to 7-8 feet of water leading to road closures, property	Up to 7-8 feet of water leading to road closures, property	Up to 7-8 feet of water leading to road closures, property	Up to 7-8 feet of water leading to road closures, property

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Table 4.16 Extent and Impact of Identified Hazards

	damage, injury and loss of life	damage, injury and loss of life	damage, injury and loss of life	damage, injury and loss of life	damage, injury and loss of life	damage, injury and loss of life	damage, injury and loss of life	damage, injury and loss of life
Hurricanes	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss	Category 3 hurricane leading to catastrophic damage. Sustained winds greater than 129 mph. Heavy flood and wind damage, loss of life, injuries, temporary loss of utilities, timber loss
Landslides	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size	Damage to transportation infrastructure and wildlife habitats; 3-4 acres in size
Land Subsidence								
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on TORRO Scale	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on	Winds up to 250 mph (Wind Zone IV), Hail up to H6 on

*The Sumter County Water Authority, Sumer County Opportunity, Inc. and Sumter County School Systems' facilities are located throughout the County meaning their risks vary by location. It should be understood the water authority's and school systems' risk is a conglomeration of all jurisdictions risks.

Table 4.16 Extent and Impact of Identified Hazards

	(hen's egg), Large hail, wind damage, property damage, crop loss, death, injury	TORRO Scale (hen's egg), Large hail, wind damage, property damage, crop loss, death, injury	TORRO Scale (hen's egg), Large hail, wind damage, property damage, crop loss, death, injury	TORRO Scale (hen's egg), Large hail, wind damage, property damage, crop loss, death, injury	TORRO Scale (hen's egg), Large hail, wind damage, property damage, crop loss, death, injury	TORRO Scale (hen's egg), Large hail, wind damage, property damage, crop loss, death, injury	TORRO Scale (hen's egg), Large hail, wind damage, property damage, crop loss, death, injury	TORRO Scale (hen's egg), Large hail, wind damage, property damage, crop loss, death, injury
Severe Winter Storms (Snow and Ice)	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury	Between 6-8" of snow leading to tree damage, utility damage, property damage, death and serious injury
Soil Erosion								1/32 of an inch of topsoil loss; Eutrophication of nearby water areas, soils depleted of nutrients leading to land infertility, wildlife habitats destroyed

*The Sumter County Water Authority, Sumer County Opportunity, Inc. and Sumter County School Systems' facilities are located throughout the County meaning their risks vary by location. It should be understood the water authority's and school systems' risk is a conglomeration of all jurisdictions risks.

Table 4.16 Extent and Impact of Identified Hazards

Tornado	F0-F5 Extensive property damage possible, death, injury	F0-F5 Extensive property damage possible, death, injury	F0-F5 Extensive property damage possible, death, injury	F0-F5 Extensive property damage possible, death, injury	F0-F5 Extensive property damage possible, death, injury	F0-F5 Extensive property damage possible, death, injury	F0-F5 Extensive property damage possible, death, injury	F0-F5 Extensive property damage possible, death, injury
Tsunamis								
Volcanoes								
Wildfire	¼ of county's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.	¼ of Town's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.	¼ of Town's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.	¼ of Town's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.	¼ of Town's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.	¼ of Town's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.	¼ of City's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.	¼ of City's land charred by wildfire leading to property loss, timber destruction, revenue losses, deaths, and injury.

Table developed by the Alabama Tombigbee Regional Commission using local information
September 2014

*The Sumter County Water Authority, Sumer County Opportunity, Inc. and Sumter County School Systems' facilities are located throughout the County meaning their risks vary by location. It should be understood the water authority's and school systems' risk is a conglomeration of all jurisdictions risks.

D.PREVIOUS OCCURRENCES

There are previous occurrences on record for each type of hazard identified in this risk assessment. The Sumter County EMA does not keep records of storm events. The best available data was taken from the National Weather Service. Once a total review of all National Weather Service records was completed, it was evident that all occurrence numbers were low (Table 4.17). The lack of historical records of storm events was included in the mitigation strategies of the last plan, but due to funding and staffing inadequacies these have not been fully implemented. Insufficient data is also addressed in the mitigation strategies section of this plan.

There are no occurrences of expansive soils listed in this section due to the nature of that hazard. Data on wildfire is provided in Appendix #6. Dam failure was not available and not listed in this section. The previous occurrence data for earthquakes and landslides is contained in the risk assessment portion of this plan.

Appendix #6 contains the past occurrence data on record with the National Weather Service.

Table 4.17 Previous Occurrences - Sumter County

Hazard	Unincorporated	Cuba	Emelle	Epes	Gainesville	Geiger	Livingston	York
Avalanche								
Coastal Erosion								
Dam Failure							Data not available	0
Earthquakes	See pg.26							
Expansive Soils								
Extreme Heat and	16	16	16	16	16	16	16	16
Flood (inc. flash)	15	15	15	16	15	15	16	16
Hurricanes	6	6	6	6	6	6	6	6
Landslides	See pg. 47-48	See pg. 47-48					See pg. 47-48	See pg. 47-48
Land Subsidence	See pg. 50							
Severe Storms (Hail, High Winds, Lightning	119	105	88	87	88	87	110	110
Severe Winter Storms	7	7	7	7	7	7	7	7
Soil Erosion								Data not available
Tornado	20	1			1	2	1	1
Tsunamis								
Volcanoes								
Wildfire	Data not available	Data not available	Data not	Data not available	Data not available	Data not available	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events information- September 2014

E. PROBABILITY OF FUTURE OCCURRENCES

By calculating the probability of future occurrences one can empirically provide the probability that a certain type of hazard will occur. Due to the insufficient amount of past occurrence data available, these probabilities are only rough estimates. Tables 4.18-4.25 provide probabilities calculated from the historic numbers. Some hazards do not have historic occurrences and/or damage values available; therefore, these cells are grayed out. The formulas used in these tables are as follows:

Probability of Occurrence = Number of historic occurrences/ Time frame in which they occurred

Expected Damages= Damages from historic occurrences/ Number of historic occurrences.

Table 4.18 Probability of Future Occurrence Based on Historical Data
Sumter County

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes	5	31	16%	Data not available	Data not available
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	22	14	>100%	$696,000	$31,636
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	221	58	>100%	$4,197,200	$18,992
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado	26	133	20%	$17,927,500	$689,519
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Table 4.19 Probability of Future Occurrence Based on Historical Data-Cuba

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes					
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	9	14	64%	Data not available	Data not available
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	28	9	>100%	$169,000	$6,035
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado	1	133	<1%	$3,910,000	$3,910,000
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Table 4.20 Probability of Future Occurrence Based on Historical Data-Emelle

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes					
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	16	16	%100	Data not available	Data not available
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	5	16	31%	$5,000	$1,000
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado					
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Table 4.21 Probability of Future Occurrence Based on Historical Data-Epes

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes					
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	17	16	>100%	$10,000	<$1,000
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	4	19	21%	$17,000	$4,250
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado					
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Table 4.22 Probability of Future Occurrence Based on Historical Data-Gainesville

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes					
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	16	16	%100	Data not available	Data not available
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	5	15	33%	N/A	N/A
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado	1	20	5%	$500,000	$250,000
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Table 4.23 Probability of Future Occurrence Based on Historical Data-Geiger

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes					
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	17	16	>100%	Data not available	Data not available
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	4	12 years	29%	$13,000	$3,250
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado	2	79	3%	$500,000	$250,000
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Table 4.24 Probability of Future Occurrence Based on Historical Data-Livingston

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes					
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	17	16	>100%	Data not available	Data not available
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	27	19	>100%	$112,000	$4,148
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado	N/A	N/A	N/A	N/A	N/A
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Table 4.25 Probability of Future Occurrence Based on Historical Data-York

Hazard	Occurrences	Time Period (years)	Probability	Damages	Estimated Damages
Avalanche					
Coastal Erosion					
Dam Failure					
Earthquakes					
Expansive Soils	Data not available	Data not available	Data not available	Data not available	Data not available
Extreme Heat and Drought	5	5	100%	Data not available	Data not available
Flood (inc. flash)	17	16	>100%	Data not available	Data not available
Hurricanes or Tropical Storms	4	9	44%	Data not available	Data not available
Landslides	Data not available	Data not available	Data not available	Data not available	Data not available
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	24	19	>100%	$58,500	$2,437
Severe Winter Storms (Snow and Ice)	7	18	39%	$46,000	$6,571
Soil Erosion					
Tornado	1	69	1%	N/A	N/A
Tsunamis					
Volcanoes					
Wildfire	68	5	>100%	Data not available	Data not available

Table developed by the Alabama Tombigbee Regional Commission using NWS Storm Events Database Information- September 2014

Due to insufficient storm event data the Sumter County EMA feels these probabilities are low. Table 4.26 also gives probabilities, but these are based on estimated numbers and research. These probabilities apply to all areas within the county, unless otherwise noted.

Table 4.26 Alternate Probabilities by Type of Event (Countywide)

Hazard	Probability of Occurrence (per year)
Avalanche	-
Coastal Erosion	-
Dam Failure	<5%
Earthquakes	0
Expansive Soils	-
Extreme Heat and Drought	100%
Flood (Inc. flash)	100%
Coastal Storm and Hurricane	25%
Landslides	0
Land Subsidence	0
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	100%
Snow and Ice	<10%
Tornado	50%
Tsunamis	-
Volcanoes	-
Wildfire	100%

Table developed by the Alabama Tombigbee Regional Commission using local information- September 2014

Summary of Changes Made in Plan Update
Section V. Assessing Vulnerability

The Assessing Vulnerability section of this plan addresses federal requirement §201.6 (c) (2) (ii) - an overall summary of each hazard and its impact on the community. It also addresses §201.6 (c) (2) (ii) (A) by providing the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas. §201.6 (c) (2) (ii) (B) is also addressed by providing an estimate of the potential dollar losses to vulnerable structures identified and a description of the methodology used to prepare the estimate. §201.6 (c) (2) (ii) (B) is addressed by providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

The most up-to-date data available for Sumter County is the 2008-2012 American Community Survey Five Year Estimates from the Census Bureau. Changes to this section were made by the Alabama Tombigbee Regional Commission under the direction of the Sumter County EMA.

- Updated vulnerability section on hazards
- Updated vulnerable populations
- Updated critical facilities

V. ASSESSING VULNERABILITY

A. OVERVIEW OF HAZARD AND VULNERABILITY IMPACT

Dam Failure

In Sumter County, there are three areas at risk from dam failure. One is the City of Livingston. The Natural Resource Conservation Service considers the Lake L.U. dam a high-risk dam. This designation was assigned due to the construction of apartment buildings in close proximity to the dam. In the event the dam was to be compromised, substantial property damage would result. Not only would resident's personal property be damaged, but also there is potential for structural damage to the buildings themselves. Injuries and death may also occur in the vicinity of the dam. Appendix #4 contains the Emergency Action Plan for this dam. The plan states that four apartments could be affected by a breach of the dam within one minute.

The City of York also has an area at risk from dam failure. This area is adjacent to the Lake Louise dam. It is estimated that 50-60 houses could be potentially impacted by the failure of this dam. Property damage, injuries, and even death are possible if this dam were to fail.

The Heflin Lock & Dam is also a high risk dam whose failure could affect Sumter County. Failure of this dam would cause environmental damage, utility damage, and property damage. Human lives could potentially be at risk as a result of this failure.

Earthquakes

The county has peak acceleration values of 0.14 and 0.10. The towns of Geiger and Gainesville lie within the 0.10 peak acceleration value, while the remainder of the county lies in the 0.10 zone. The areas with the 0.14 peak acceleration have a higher probability of a quake occurring, approximately 1,700 people live in this area. A quake would cause minimal damage consisting mainly of broken household items.

Expansive Soils

Expansive soils lead to greater risk of property damage. These soils may lead to foundation cracks and other damage to structures built on them. Approximately 67% of Sumter County soils have high shrink-swell potential. It is estimated this hazard affects approximately 9,500 residents throughout the county and 4,500 housing units. Page 38 contains a map that identifies areas with this soil type.

Extreme Heat and Drought

Both extreme heat and drought could occur at any location in the continental United States according to FEMA. Droughts would most greatly affect agriculture and water supply. Extreme heat could lead to heatstroke, heat cramps, and heat exhaustion. The Sumter County Natural Hazards Steering Committee feel the elderly population, in particular, is extremely vulnerable to these conditions. A widespread extreme heat event could possibly overcrowd local clinics and emergency rooms with persons suffering from the heat's effects. Increased use of electricity to run fans and air conditioners may also put a strain on electric utilities. In addition, during droughts the risk of wildfire is greater. All 13,669 residents of Sumter County are at risk to the effects of extreme heat and drought.

River Floods/Flash Floods

Flash floods may lead to property damage or loss depending on severity. Their rapid onset makes them even more deadly. Often waters rise so quickly that people have little time to protect themselves. These floods can also lead to death and injury. Flash flooding on roadways is a major risk. Many times drivers underestimate water depth and become stranded in floodwaters. Due to the nature of flash floods, every resident of the county is at risk. Lower areas and areas with poor drainage are at higher risks, but it is impossible to give an approximate number of residents living in these areas.

River flooding is also a risk in the Bellamy and Livingston areas. Floods are "a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from: overflow of inland or tidal waters, unusual and rapid accumulation or runoff of surface waters from any source, or a mudflow (http://www.fema.gov/hazards/floods/)." Floods may lead to property damage or loss depending on severity. Floods may also lead to death and injury.

The areas at risk for river flooding include East Livingston and the Bellamy area. An estimated twenty-six residences are at risk in East Livingston and an estimated fifty-seven are at risk in Bellamy. Using the same methodology used in the dam failure section, an estimate of potential persons affected can be made. This estimate was calculated by multiplying average household size for the census tract in which the area lies by the number of residences affected. In East Livingston this equals approximately 59 persons and in Bellamy this amounts to approximately 129 persons. No other areas in the county are at risk for river flooding.

Hurricanes

Atlantic hurricane season is from June 1 to November 30. According to NOAA the highest number of Atlantic hurricanes to make landfall in the United States is six (in 1960 and 1985), while the lowest is zero, which has occurred often (http://www.aoml.noaa.gov/hrd/tcfaq/E9.html). Over the past fifty years Sumter County has been affected by hurricanes. Severe storms, tornadoes, high winds, hail, torrential rains, river flooding, and flash flooding are all associated with hurricanes as they move inland. Potentially all of Sumter County's residents and structures are at risk. The loss of life, property and possessions is common. Interruption of utility and communication service is expected. Sumter County is far enough inland that advance warning of the approaching storm can be heeded and residents can prepare themselves. In instances such spawned tornadoes and flash flooding where warning time may be short or nonexistent the risk factors are higher. In addition, low-lying areas and areas prone to flooding are at higher risk of hurricane related flood damage but it is impossible to give an approximate number of residents living in these areas.

Severe Storms

Damage from severe storms can have a wide range of severity. Common incidences are a result of falling trees and flying debris. Lightning can cause substantial property damage and death. Utility disruption and blocked roadways are common. Historically Sumter County has experienced these storms every year with varying frequency and intensity. Winds of sixty knots have been recorded during these events within the county. Hailstorms as large as two inches have occurred in the area. Generally severe storms follow no common track or an exact pathway; therefore, the whole county (population and building stock) is at risk.

Landslides
The areas identified as being affected by landslides are located throughout the county mainly on county roads. These slides main impact would be disruption of traffic and possible environmental habitat damage.

Severe Storms (Hail, High Wind, Lightning, and Thunderstorms)
Damage from severe storms can have a wide range of severity. Common incidences are a result of falling trees and flying debris. Lightning can cause substantial property damage and death. Utility disruption and blocked roadways are common. Historically Sumter County has experienced these storms every year with varying frequency and intensity. Generally severe storms follow no common track or an exact pathway; therefore, the whole county (population and building stock) is at the same risk.

Severe Winter Storms (Snow and Ice)
Winter storms are a rare occurrence in Sumter County, but when they do occur they have a significant impact. Local governments do not have snow removal equipment on hand. Local drivers are not used to driving in those adverse conditions and automobile accidents are common occurrences. Ice and snow can weigh down limbs and power lines causing them to break under pressure, resulting in power failure and property damage. During extended times of power failure, residents and businesses are not equipped with backup generators. Also many homes may not be properly insulated leading to health concerns. The impacts of these storms are generally the result of the infrequency of their occurrence. All residents of Sumter County are vulnerable to severe winter storms because these storms have no defined track.

Soil Erosion
The City of York has identified areas of soil erosion. This erosion can cause property and environmental damage. The City is pursuing projects to rectify these problems. It is impossible to give an exact number of residents or structures vulnerable to this hazard.

Tornadoes
There are two tornado seasons in Alabama; these are in May and November. Tornadoes are not constrained to follow any definite path, so every area and every resident of Sumter County is at risk. A tornadoes path is generally 300-400 yards wide and four miles long (NOAA 1973). Areas within that path may suffer from slight to severe damage depending on the tornadoes strength. Injury and death can occur as a result of even the weakest tornado. In Sumter County, historically there have been F0, F1, F2, F3, and F4 tornadoes recorded.

The effects of any tornado may be far reaching. Life, property, and personal items are all at risk. Interruption of electric, telephone and other utility and communications services may occur. Transportation corridors may be blocked or in some cases destroyed. Debris must be removed and this is often a costly task. Citizens may suffer from posttraumatic syndrome, depression, anxiety, and grief for lost loved ones. Also another concern in rural areas, such as Sumter County, is housing and providing for storm victims. When large storms with widespread damage and injuries occur, these areas have a more difficult time providing adequate aid to all who are in need.

Overall, the entire county is at the same risk for severe storms, but some populations and structures are at a higher risk. The highest potential for death or injuries resulting from tornadoes occurs in areas with higher population densities. As reviewed in the County Profile section of this report, the

area that is the most densely populated is Livingston. The occurrence of dense housing also increases the probability of not only death or injury, but also property damage. Livingston also has the highest housing density in the county. Other areas that are more vulnerable to damage from a tornado include areas with high percentages of mobile homes. These structures are not capable of withstanding the strong winds associated with tornadoes as well as traditional housing. In Sumter County there are high percentages of mobile homes in the northern portion of the county. In this area over fifty percent of the housing stock consists of mobile homes.

Wildfire

Due to the large areas of forest-covered land in Sumter County, wildfires are a real threat to all residents of Sumter County. These fires can ignite and spread quickly, charring everything in their path. In Sumter County, wildfires are a threat to the residents' property and health. Although a fire has not destroyed private residences in the county within the last twenty years, the potential is there. These fires not only threaten the lives of residents, but also may cause respiratory problems for many residents. Smoke from these fires may lead to limited visibility along roadways increasing the probability of accidents. In addition to these effects, wildfires in Sumter County threaten the economic livelihood of the county. The economy has a large timber component that could be damaged by wildfire.

B. OVERVIEW OF AFFECTED POPULATIONS AND STRICTURES BY HAZARD

The population affected by natural disasters varies by hazard type. Table 5.1 gives a broad overview of the estimated populations that are at risk from each designated hazard. These estimates include the entire populations, but information given in the previous section gives more detailed estimates for flooding. Table 5.2 gives a broad overview of structures vulnerable to each hazard.

Table 5.1 Population Affected by Individual Hazards

Hazard	Unincorporated	Cuba	Emelle	Epes	Gainesville	Geiger	Livingston	York
Avalanche								
Coastal Erosion								
Dam Failure							See Appendix 2	180
Earthquakes								
Expansive Soils	6,645	0	19	89	208	164	3,456	2,758
Extreme Heat and Drought	6,645	330	19	89	208	164	3,456	2,758
Flood (inc. flash)	6,645 flash 129 river	330 flash	19 flash	89 flash	208 flash	164 flash	3,456 flash 59 river	2,758 flash
Hurricanes	6,645	330	19	89	208	164	3,456	2,758
Landslides								
Land Subsidence								
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	6,645	330	19	89	208	164	3,456	2,758
Severe Winter Storms (Snow and Ice)	6,645	330	19	89	208	164	3,456	2,758
Soil Erosion								2,758
Tornado	6,645	330	19	89	208	164	3,456	2,758
Tsunamis								
Volcanoes								
Wildfire	6,645	330	19	89	208	164	3,456	2,758

Table developed by the Alabama Tombigbee Regional Commission using Census Bureau American Community Survey information- September 2014

Table 5.2 Structures Affected by Individual Hazards

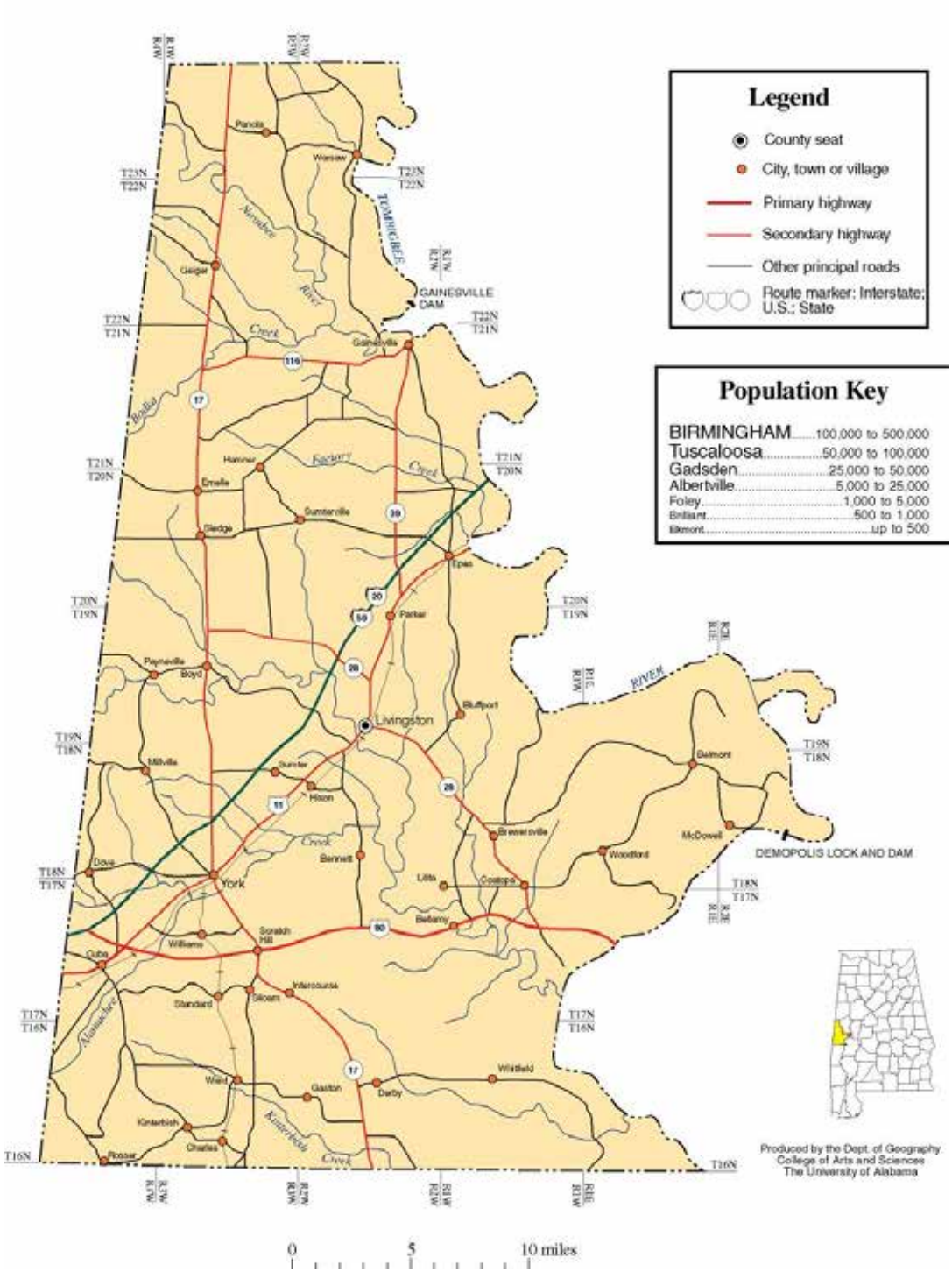
Hazard	Sumter County	Geiger	Gainesville	Livingston	York
Avalanche					
Coastal Erosion					
Dam Failure				See Appendix 2	60
Earthquakes		83	93		
Expansive Soils	4,500 throughout county see map on pg.29				
Extreme Heat and Drought	7,802				
River Flood Flash Flood	57 (Bellamy) 7,802			26	
Hurricanes	7,802				
Landslides	0				
Land Subsidence					
Severe Storms (Hail, High Winds, Lightning, Thunderstorms)	7,802				
Severe Winter Storms (Snow and Ice)	7,802				
Soil Erosion					450
Tornado	7,802				
Tsunamis					
Volcanoes					
Wildfire	6,358				

Table developed by the Alabama Tombigbee Regional Commission using HAZUS MH- September 2014

C. IDENTIFICATION OF SOCIALLY VULNERABLE POPULATION

Table 5.2 shows vulnerability due to physical location. Location is not the only factor in determining vulnerability. Social and economic characteristics can also be studied to determine vulnerability. Certain populations are generally more affected by any type of natural hazard and their after effects. These populations can be defined in terms of social, racial, and economic characteristics. The Census Bureau's American Community Survey Five Year Estimates (2009-2013) and Annual Population Estimates are the most current data available for this information.
The following section identifies Sumter County's socially vulnerable populations by jurisdiction. Figure 5.1 is a Sumter County map produced by the University of Alabama's Cartographic Research Lab, it is provided for the reader to better understand the geographies note in the following discussion.

Figure 5.1 Sumter County Map



Source: Cartographic Research Lab, University of Alabama
http://alabamamaps.ua.edu/
Last Accessed: May 8, 2015

Population

The 2000 population estimates (Table 5.3) show that Sumter County's population is declining. The population is also getting older. The American Community Survey reports that the median age in Sumter County was 37.2 years. The population is also predominantly minority with 2013 estimates estimating that 75.2% of the county identifying themselves as a minority.

Table 5.3 2013 Population Estimates for Sumter County

Sumter County (Entire County)	13,361
Town of Cuba	332
Town of Emelle	51
Town of Epes	187
Town of Gainesville	201
Town of Geiger	165
City of Livingston	3,506
Town of York	2,446

Source: US Census Bureau
Annual Estimates of Resident Population: April 1, 2010 to July 1, 2013
Accessed on 2/6/2015

In terms of vulnerability, the larger the population of an area the more people and structures that could possibly be damaged or destroyed. Livingston is by far the most populated municipality and also has the highest population and housing density.

The population over sixty-five years of age and under eighteen years of age is especially vulnerable to natural hazards due to their age. These groups are at a higher risk for injury and medical complications that may occur during or as a result of a natural disaster. Also, these groups often need evacuating and special shelter. The northern third and southwestern portions of the county have the highest percentages of the population over 65 with both areas having approximately 20% in this category.

Housing

Housing is always a concern when you are looking at mitigation planning. The concentration and type of housing are two main concerns. In Sumter County there are a total of 6,761 housing units. Not surprisingly, the concentrations of housing coincide with the more populated areas. Housing density deals with housing units per square mile of land area.

Not only are concentrations of units important, but also type of unit is important. Within Sumter County there are a significant number of mobile homes. These homes are more vulnerable to damage from natural hazards. Approximately one third of the county's housing stock is mobile homes. Mobile homes make up over fifty percent of the housing stock in the northern half of the county.

Income

In addition to population and housing characteristics of the county, income levels are also important when identifying vulnerable populations. Lower income individuals may not have the resources to prepare or recover from natural disasters. The effects of disasters are felt by this group due to their lack of resources.

Median income divides the income distribution into two equal groups, one having incomes above the median, and other having incomes below the median. In Sumter County the median household income countywide was $22,186, this figure is substantially lower than both the state ($43,253) and national ($53,046) averages. The range of median incomes between census tracts is $20,889, which is a significant range. No tract within the county has a median income that equals or exceeds the state average. The areas with the lowest median incomes lie in and around the City of Livingston and between Livingston and York.

D. OVERVIEW OF COUNTY BUILDING STOCK

In addition to populations, it is also important to examine the number and value of potential structures that may be damaged by natural hazards. Table 5.4 lists the total number of structures by general occupancy for each census tract. It can be seen that tracts containing Livingston and York have the most residences and total buildings. These areas also have the largest populations.

Table 5.4 Building Count by General Occupancy

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total For Tract
113	3,042	128	25	11	22	13	10	3,251
114	1,127	30	10	11	5	4	1	1,188
115	2,455	105	22	2	20	7	3	2,614
116	705	23	7	4	5	4	1	749
Totals	7,329	286	64	28	52	28	15	7,802

Source: HAZUS-MH

Table 5.5 gives dollar exposure figures, broken down by general occupancy. These estimates include structure and contents. Residential values exceed all other categories. Tract 113 has the largest dollar exposure in both residential and commercial categories. This tract includes the City of Livingston.

Table 5.5 Total Exposure by General Occupancy

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total for Tract
113	$282,106,000	$105,032,000	$33,547,000	$2,054,000	$39,844,000	$14,511,000	$27,900,000	$504,994,000
114	$80,925,000	$13,146,000	$7,846,000	$3,794,000	$4,744,000	$1,004,000	$2,378,000	$113,837,000
115	$249,784,000	$70,213,000	$15,555,000	$578,000	$18,484,000	$5,441,000	$7,324,000	$367,379,000
116	$57,212,000	$12,932,000	$2,218,000	$ 980,000	$5,226,000	$5,600,000	$1,276,000	$ 85,444,000
Totals	$670,027,000	$201,323,000	$59,166,000	$7,406,000	$68,298,000	$26,556,000	$38,878,000	$1,071,654,000

Source: HAZUS-MH

E. IDENTIFICATION OF CRITICAL FACILITIES

The Sumter County Hazard Mitigation Steering Committee identified critical facilities in the following six categories:

A. A critical facility is critical to the health and welfare of the entire jurisdiction. They become essential in the event of a natural disaster. These facilities include police stations, fire stations, schools, and hospitals.
B. Critical facilities are lifelines that provide the jurisdiction with necessities such as potable water.
C. Critical facilities include the transportation corridors necessary to keep the jurisdiction connected.
D. Critical facilities include those facilities that house persons with special needs (jails, nursing homes). They may also include locations were large groups often meet.
E. Critical facilities include those in which potential losses, both human and economic, are high.

F. CRITICAL FACILITIES BY JURISDICTION

Tables 5.6-5.20 break down critical facilities by jurisdiction. Also cost estimates are given. The municipalities themselves provided estimates listed under municipalities. Other values were provided by the individual entities. All values come from insurance listings. All deficiencies in estimated values and potential loses will be corrected at the next update. Highlighted cells indicate facilities for which a value has been requested, but not yet received.

Table 5.6 Sumter County Critical Facilities-Unincorporated Areas

Facility	Estimated Value	Replacement Value
County Courthouse	$3,500,000	$4,050,000
Courthouse Annex		
County Commission Offices		
County Offices		
County Jail	$4,800,000	$5,560,000
County Road and Bridge Department	$3,400,000	$3,940,000
TOTAL	$11,700,000	$13,550,000

Table 5.7 Cuba Critical Facilities

Facility	Estimated Value	Replacement Value
Town Hall includes police and fire	$180,000.00	$250,000.00
Fire Station #2	$210,000.00	$650,000.00
Package Plant	$120,000.00	$160,000.00
TOTAL	$510,000	$1,060,000

Table 5.8 Emelle Critical Facilities

Facility	Estimated Value	Replacement Value
Town Hall	$140,000	$340,000
Fire Department	$130,000	$230,000
TOTAL	$270,000	$570,000

Table 5.9 Epes Critical Facilities

Facility	Estimated Value	Replacement Value
Town Hall/Police Department	$100,000	$103,000
Epes Volunteer Fire Department	$75,000	$77,250
Community Center	$250,000	$250,000
TOTAL	$425,000	$430,250

Table 5.10 Gainesville Critical Facilities

Facility	Estimated Value	Replacement Value
Town Hall/Senior Center	$150,000	$275,000
Gainesville Volunteer Fire Department	$50,000	$200,000
TOTAL	$200,000	$475,000

Table 5.11 Geiger Critical Facilities

Facility	Estimated Value	Replacement Value
Town Hall	$218,758	$218,758
Geiger Storm Shelter	$82,530	$82,530
Tractor and Bush hog	$11,200	$11,200
Generator	$5,150	$5,150
TOTAL	$317,638	$317,638

Table 5.12 City of Livingston Critical Facilities

Facility	Estimated Value	Replacement Value
City Hall	$964,131	$964,131
Police Department	$679,638	$679,638
Fire Department	$792,632	$792,632
Water Department	$750,000	$750,000
Safe Room	$850,000	$850,000
Community Center	$731,581	$731,581
Street And Sanitation	$656,582	$656,582
Library	$645,000	$645,000
TOTAL	$6,069,564	$6,069,564

Table 5.13 York Critical Facilities

Facility	Estimated Value	Replacement Value
City Hall	$500,000	$5,500,000
Police Department	$250,000	$1,500,000
City of York Water Treatment Plant, Tank, and Lagoon	$1,500,000	$5,000,000
TOTAL	$2,250,000	$12,000,000

Table 5.14 Sumter County BOE Critical Facilities

Facility	Estimated Value	Replacement Value
Kinterbish Jr. High School	$4,063,275	$9,780,000
Livingston Jr. High School	$8,837,059	$24,480,000
North Sumter Jr. High School		
York West End Jr. High School		
Sumter Central High School		
Bus Shop		$960,000
Central Office		$1,500,000
Bell Brown Technology Center	$2,150,899	$15,000,000
Alternative School		$600,000
Material Center		$1,500,000
TOTAL	$15,051,233	$53,820,000

Table 5.15 Sumter County Water Authority Critical Facilities

Facility	Location	Value	Replacement Value
Pump Station – Alabama Hill	Highway 28 East	$90,526	$155,789
Pump Station- Calvin Boyd Station	Highway 28 West	$31,725	$63,450
Water Tank (500,000 gallons)-Bluffport Tank	W of CR Ka Bluff Port	$92,417	$185,490
Water Tank (200,000 gallons)-Hamner Tank	Hamner	$142,390	$300,000
Water Tank (200,000 gallons)-Millville Tank	Morning Star	$140,000	$300,000
Water Tank (200,000 gallons)-Mae Hill Tank	Mae Hill Community Rd23	$81,093	$163,000
Water Tank (125,000 gallons)-Panola Tank	Panola	$119,550	$300,000
Pump Station- Panola Well	Panola	$59,110	$358,650
Water Tank (300,000 gallons)-Port of Epes Tank	Epes	$300,000	$350,000
Water Authority-Bill Nixon Well	Geiger	$59,830	$360,000
Pump Station- Powell Road Booster	CR 12, Livingston	$25,000	$30,000
Water Authority Office	HWY 28 W, Livingston	$286,000	$550,000
Water Authority Warehouse	HWY 28 W, Livingston	$99,660	$289,980
Water Tank (500,000 gallons)-Brunson Tank	Cuba	$214,000	$285,241
Water Tank (200,000 gallons)-Siloam Tank	Siloam	$81,000	$165,810
Pump Station- Siloam	Ward	$68,520	$128,520
Pump Station- Lilita	CR 21, Livingston	$79,130	$158,000
Pump Station	Boyd	$68,520	$168,520
Lockland Well	Cuba	$60,910	$675,000
TOTAL		$2,099,381	$4,822,090

Table 5.16 Sumter County Sewer Authority Critical Facilities

Facility	Value
Lift Stations (5)	$925,000
Grinder Pumps (294)	$676,000
19.5 acre, 3 pool lagoon	$750,000
1.75”, 4”, and 6” Sewer Pipe	$250,000
Land and Buildings	$70,000
Backup generators (3)	$90,000
TOTAL	$2,761,000

Table 5.17 UWA Critical Facilities

Facility	Estimated Value	Replacement Value
University of West Alabama	$147,489,724	$199,489,724

Table 5.18 Sumter County Opportunity, Inc. Critical Facilities

Facility	Estimated Value	Replacement Value
Sumter County Opportunity, Inc. Head Start -York	$355,000	$365,650
Sumter County Opportunity, Inc. Head Start- Livingston	$230,000	$236,900
Sumter County Opportunity, Inc. Head Start-Geiger	$104,000	$107,120
Sumter County Opportunity, Inc. Head Start-Gainesville	$150,000	$154,500
Sumter County Opportunity, Inc. Head Start- Cuba	$185,000	$190,550
Sumter County Opportunity, Inc. Head Start- Bellamy	$175,000	$180,250
TOTAL	$1,199,000	$1,234,970

Table 5.19 North Sumter Development Corporation

Facility	Estimated Value	Replacement Value
NO CRITICAL FACILITY INFORMATION PROVIDED		
TOTAL		

Table 5.20 North Sumter Citizens for Better Government

Facility	Estimated Value	Replacement Value
NO CRITICAL FACILITY INFORMATION PROVIDED		
TOTAL		

Table 5.21 provides a listing of critical facilities planned within the jurisdictions participating in the planning process. Many of the facilities were on the original plan's future critical facility list and are listed here because they have not been completed. Those jurisdiction not mentioned in the table have no planned critical facilities at this time.

No significant increase in construction is expected. Residential construction will continue at roughly the same rate, but no other major construction projects are foreseen. With regards to infrastructure, no significant projects are expected.

Table 5.21 Planned Critical Facilities

Facility	Location	Estimated Cost
Lagoon	Cuba	$500,000
Fire Station	Cuba	$350,000
West Alabama/ East Mississippi Industrial Park	Cuba	$1,200,000

G. CRITICAL FACILITIES BY HAZARD

Table 5.22 breaks critical facilities down by total exposure to each hazard. The sum of replacement costs of all buildings affected by each hazard was used to compute these numbers. At this time, the data is incomplete and will be updated when all data becomes available.

Example: Town of Cuba Critical Facilities

Town Hall includes Police and Fire	$250,000+
Sumter County Opportunity, Inc. Head Start	$190,550+
Fire Station #2	$615,000+
Package Plant	$160,000+
Repeater Shed and Radio Tower	$26,000
Potential Loss Total for Cuba	$11,021,550

Table 5.22 Dollar Exposure of Critical Facilities by Hazard

Hazard	Unincorporated	Cuba	Emelle	Epes	Gainesville	Geiger	Livingston
Dam Failure							
Extreme Heat and Drought							
Flash Flood	$13,550,000	$1,060,000	$570,000	$430,250	$475,000	$317,638	$6,069,564
Flood							
Hurricane	$13,550,000	$1,060,000	$570,000	$430,250	$475,000	$317,638	$6,069,564
Severe Storms	$13,550,000	$1,060,000	$570,000	$430,250	$475,000	$317,638	$6,069,564
Snow and Ice	$13,550,000	$1,060,000	$570,000	$430,250	$475,000	$317,638	$6,069,564
Tornado	$13,550,000	$1,060,000	$570,000	$430,250	$475,000	$317,638	$6,069,564
Wildfire	$13,550,000	$1,060,000	$570,000	$430,250	$475,000	$317,638	$6,069,564

Table 5.22 Dollar Exposure of Critical Facilities by Hazard (continued)

Hazard	York	Sumter BOE	Sumter County Water Authority	Sumter County Sewer Authority	UWA	Sumter County Opportunity, Inc.
Dam Failure						
Extreme Heat and Drought						
Flash Flood	$12,000,000	$53,820,000	$4,822,090	$2,761,000	$199,489,724	$1,234,970
Flood						
Hurricane	$12,000,000	$53,820,000	$4,822,090	$2,761,000	$199,489,724	$1,234,970
Severe Storms	$12,000,000	$53,820,000	$4,822,090	$2,761,000	$199,489,724	$1,234,970
Snow and Ice	$12,000,000	$53,820,000	$4,822,090	$2,761,000	$199,489,724	$1,234,970
Tornado	$12,000,000	$53,820,000	$4,822,090	$2,761,000	$199,489,724	$1,234,970
Wildfire	$12,000,000	$53,820,000	$4,822,090	$2,761,000	$199,489,724	$1,234,970

Table 5.22 Dollar Exposure of Critical Facilities by Hazard (continued)

Hazard	North Sumter Development Corporation	North Sumter Citizens for a Better Government	Totals
Dam Failure			
Extreme Heat and Drought			
Flash Flood			$290,600,236
Flood			
Hurricane			$290,600,236
Severe Storms			$290,600,236
Snow and Ice			$290,600,236
Tornado			$290,600,236
Wildfire			$290,600,236

H. ANALYZING DEVELOPMENT TRENDS

Figure 5.2 is a land use map for Sumter County. Green shades represent forest, pastureland, and shrubs. The majority of Sumter County is forested land. There are also significant areas of agriculture land. This map has not significantly changed since the last update; this is due to the fact that Sumter County is a rural county with a declining population. Table 5.23 gives population estimates for the county based on the 2010 Census. Based on the supplied information, there will be no major land use changes in the county in the foreseeable future.

Figure 5.2 Sumter County Land Use

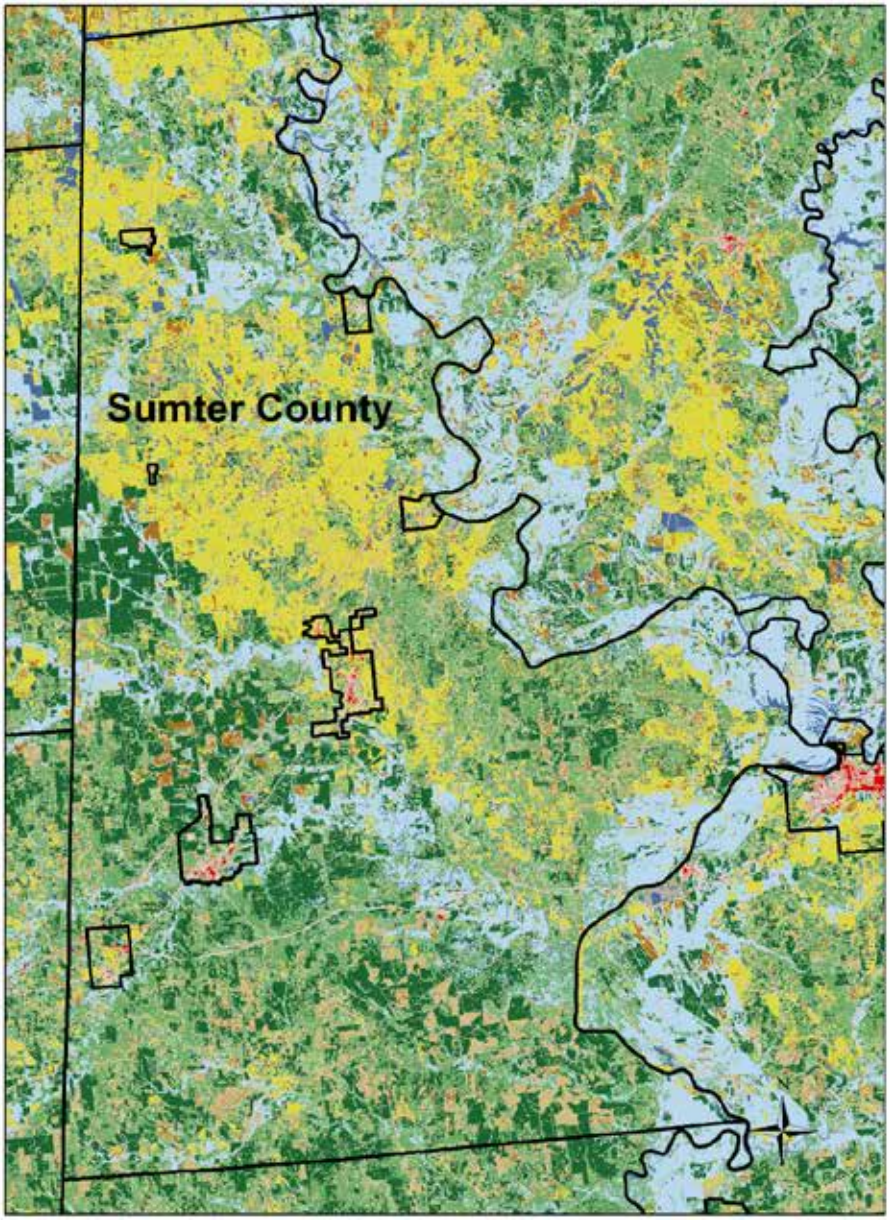


Table 5.23

Sumter County, Alabama County Population 2000-2010 and Projections 2015-2040										
	Census	Census							Change 2010-2040	
County	2000	2010	2015	2020	2025	2030	2035	2040	Number	Percent
Sumter	14,798	13,763	13,323	12,944	12,584	12,217	11,838	11,435	-2,328	-16.9
Note: These projections are driven by population change between Census 2000 and Census 2010. Recent data on births and deaths from the Alabama Department of Public Health are used to derive birth and death rates for the state and each county.										

Compiled on 6/15/2014 by the Alabama Tombigbee Regional Commission
Source: United States Census Bureau & Center for Business and Economic Research
The University of Alabama, June 2, 2014

Summary of Changes Made in Plan Update
Section VI. Ongoing Mitigation Assessment

This section underwent major revisions from the last update. This section was previously titled "Capability Assessment." A new section Existing Authorities, Policies, Programs, and Resources by Jurisdiction was added to detail capabilities by jurisdiction. Capabilities were determined by talking with each jurisdiction via phone calls. The information on the Sumter County EMA was moved to Section B.

VI. Ongoing Mitigation Assessment

A. Existing Authorities, Policies, Programs, and Resources by Jurisdiction

A brief assessment was conducted by each jurisdiction before goals, objectives, and strategies were discussed. This assessment was completed by contacting local officials by phone, regional planning commission knowledge, and internet research. Table 6.1 details the results of the assessment by jurisdiction.

Table 6.1 Hazard Mitigation Existing Authorities, Policies, Programs, and Resources by Jurisdiction

Sumter County Commission	Cuba	Emelle	Epes	Gainesville	Geiger	Livingston	York
Road and Bridge Department	Member of NFIP	Volunteer Fire Department	Member of NFIP	Volunteer Fire Department	Member of NFIP	Member of NFIP	Member of NFIP
Emergency Management	Volunteer Fire Department	Regional Hazmat Team	Volunteer Fire Department	Regional Hazmat Team	Volunteer Fire Department	Volunteer Fire Department	Volunteer Fire Department
Sheriff's Office	Regional Hazmat Team	Ability to tax	Regional Hazmat Team	Ability to tax	Regional Hazmat Team	Regional Hazmat Team	Regional Hazmat Teams
Volunteer Fire Departments	Ability to tax		Ability to tax		Ability to tax	Ability to tax	Ability to tax
Member of NFIP	Zoning Ordinances					Zoning Ordinances	Zoning Ordinances
Regional Hazmat Teams	Building codes					Building codes	Building codes
						Public Works Department	Public Works Department
							Rescue Squad
							Hospital in town

Table developed by the Alabama Tombigbee Regional Commission from local information-February 2015

The extent to which each jurisdiction can expand on existing policies and programs varies. In the State of Alabama, home rule is limited by its Constitution. While municipalities have the power to levy taxes (subject to constitutional limitations on ad valorem taxes), adopt zoning regulations, annex property, select and change their form of government, construct streets and assess the cost against the abutting property, engage in redevelopment and urban renewal projects and establish public agencies to operate hospitals, libraries, recreational facilities, counties do not. Counties that hold these powers have received them through legislative acts, which are written at the local level and presented to the state legislature.

With regards to zoning ordinances, jurisdictions with ordinances in place (Cuba, Livingston and York) may amend them to address any issues that may arise as long as adequate public notice and a public comment period are given. These jurisdictions have active planning commissions that hear all requests with regards to the ordinances. For municipalities with no zoning ordinances (Emelle, Epes, Gainesville, and Geiger), ordinances can be drafted and enacted as long as adequate public notice and a public comment period are given. In order for the Sumter County Commission to enact a zoning ordinance, an act must be passed by the Alabama legislature in Montgomery. At this time, there is no indication that jurisdictions without ordinances in place desire to enact a new set of ordinances.

Each jurisdiction in the county has the ability to enforce building codes to the extent it sees fit. Depending on budget and available personnel, these jurisdictions may modify the extent of their enforcement at any time. Funding for public works, utility departments, police, and fire also depend on each jurisdiction's available funding. Taxes are the most significant source of funding for these activities. Municipalities may enact new taxes without legislative approval, but county's may not.

Comprehensive planning is an area where every jurisdiction has the opportunity to analyze hazard mitigation. Planning at this time is limited to those jurisdictions that can afford to pay for a plan or have been accepted into the Alabama Communities of Excellence Program. The City of Livingston has participated in the Alabama Communities of Excellence program where extensive strategic and comprehensive planning has occurred.

The following is a list of additional mitigation measures already in place in Sumter County.

- The Sumter County EMA director is available twenty-four hours a day to respond to any emergency that occurs within the county.
- The EMA receives weather alerts from the national Weather Service out of Birmingham. NOAA weather radio is desired throughout the county.
- The local cable system is set up to interrupt programming in the event of severe weather warnings.
- There are sixty-nine proposed siren sites in Sumter County (refer to Appendix #8).
- The City of Livingston is a NWS Storm Ready Community. "Storm Ready communities are better prepared to save lives from the onslaught of severe weather through better planning, education, and awareness (http://www.stormready.noaa.gov/)."
- The University of West Alabama has a variety of mitigation measures in place: a severe weather plan where bells in each classroom ring when a warning is issued, plan that moves all students to lowest floor inner hallways, sirens audible enough for anyone attending outdoor events on campus to hear, and an Athletic Department Lightning Safety Policy.

- The University also monitors the Lake L.U. dam and warns residents in danger from a breach or overflow (Appendix #4).
- UWA not only has adequate shelter for all persons on campus, but also provides shelter for local members of the community that choose to evacuate their homes.
- The Sumter County School System has a severe weather plan in place.
- The Sumter County Health and Rehabilitation, LLC. has a severe weather plan.
- The Hill Hospital has a severe weather plan.
- VFD's, Rescue Squads, and Shelters are equipped with generators (Appendix #7).

B. SUMTER COUNTY EMERGENCY MANAGEMENT AGENCY

The Sumter County EMA Director is available 24 hours a day. The EMA Office is located in Livingston. The Sumter County EMA is capable of communicating with all law enforcement, emergency medical, fire, search and rescue personnel, amateur radio users, adjacent jurisdictions, and the State Emergency Operations Center by phone and radio.

Summary of Changes Made in Plan Update
Section VII. Mitigation Goals, Actions, and Action Plan

Section VII of this plan addresses federal requirement §201.6 (c) (3) (i)-(iv).

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

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

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

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

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

The *Mitigation Goals, Objectives, and Actions* section of the plan was revised. Each jurisdiction reviewed their goals, objectives, and actions. A number of jurisdictions modified projects and estimates. A cost benefit ranking, a status, and a timeframe was included for each strategy.

VII. MITIGATION GOALS, ACTIONS, & ACTION PLAN

After the risk assessment for the county was updated, each jurisdiction was asked to review their prioritized list of hazards. Re-prioritization was based on information from the risk assessment and personal knowledge of their jurisdiction. They were also asked to revise their goals, actions, and action plan included in the current plan if necessary. The following guidelines were used:

> "Mitigation goals are general guidelines that explain what the community wants to achieve with the plan. They are usually broad, policy-type statements that are long-term, and represent visions for reducing or avoiding losses from the identified hazards."

> "Mitigation actions are specific projects and activities that help achieve the goals. The implementation of actions helps achieve the plan's mission and goals. The actions form the core of the plan and are a key outcome of the planning process."

It is important to note that Sumter County was devastated by tornadoes during April 2011. In the four years since these events, interest in mitigation has grown in the county. Jurisdictions and individuals have shown a greater interest in sirens and shelters. Support for mitigation projects is widespread. Interest in these projects was apparent during dealings with the Natural Hazards Steering Committee.

Each committee member and everyone attending the committee meetings were asked to review the goals for the jurisdiction they represented. A broad generic list was presented to aid new participants in the process. The revision of goals was based solely on what the individual felt the jurisdiction needed to focus on with regards to mitigation. Objectives were also reviewed based on how each jurisdiction felt specific objectives would help them achieve their goals.

Each jurisdiction was responsible for submitting updated mitigation actions. Actions were revised based on determining ways to work towards achieving the stated goals and objectives. Jurisdictions reviewed actions contained in the last plan, along with an extensive list of additional actions. In the review and revision of mitigation actions, each jurisdiction was asked to consider the following aspects:

- Technical – Is the mitigation action overly complicated from an engineering perspective? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.
- Political – Is there overall public support for the mitigation action? Is there the political will to support it?
- Legal – Does the community have the authority to implement the action?
- Environmental – What are the potential environmental impacts of the action? Will it comply with environmental regulations?
- Social – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
- Administrative – Does the community have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?
- Local Champion – Is there a strong advocate for the action or project among local

departments and agencies that will support the action's implementation?

- Other Community Objectives – Does the action advance other community objectives, such as capital improvements, economic development, environmental quality, or open space preservation?

If a proposed action was not feasible based on any of these criteria, it was not included.

There were four categories of actions considered:

- Local Plans and Regulations: These include actions that pertain to government authorities, policies, or codes that influence the way land and buildings are developed and built. Actions may include modifying the local flood damage prevention ordinance to adopt higher standards for reducing flood damage than the minimum standards established by the NFIP.
- Structure and Infrastructure Projects: These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures, as well as critical facilities and infrastructure. Many of these types of actions are projects eligible for funding through FEMA Hazard Mitigation Assistance programs.
- Natural Systems Protection: These are actions that minimize damage and losses and also preserve or restore the functions of natural systems. Actions may include sediment and erosion control or wetlands restoration projects.
- Education and Awareness Programs: These are actions to inform and educate the public, elected officials, and property owners about hazards and potential ways to mitigate them. Actions may be posting hazard maps on a Web site or mailing information about a hazard to owners of properties in a hazard-prone area.

All participants were reminded to consider the reduction of the effects of hazards on new and existing infrastructure/buildings, a number of strategies identified in the plan directly addresses this requirement (FEMA requirement §201.6 (c)(3)(ii)). These strategies include:

- retrofitting facilities to increase wind resistance (all jurisdictions)
- drainage and storm water management projects to protect existing infrastructure from flooding (all jurisdictions)
- enforcement of zoning ordinances to ensure no new development occurs in hazard prone areas (all jurisdictions)
- enforcement of flood ordinances to ensure no development occurs in flood prone areas(all jurisdictions)

Continued compliance with NFIP in participating communities was also addressed in this section. Participating jurisdictions identified various strategies that contribute to compliance including enforcement of flood and zoning ordinances, provision of information on flood hazards to developers and the public, and maintenance of drainage infrastructure.

Once actions were selected they were analyzed in terms of costs and benefits. A cost/benefit classification of Low, Moderate, or High was assigned to each action. These classifications are defined below:

- Low (L): Benefits: Projects benefitting only a small percentage of the population, or provides short-term benefits. Costs: Projects likely to cost over $100,000 that require additional funding and/or staffing and are complicated to implement.
- Moderate (M): Benefits: Projects that would benefit a larger percentage (over 30%) in the jurisdiction, or alleviates the problem for several years. Costs: These projects that may need additional funding or staffing outside of normal operations, with estimated costs between $10,000 and $100,000.
- High (H): Benefits: Projects that benefit over 50% of the population and are long-term solutions. Costs: projects that can be implemented by existing personnel

Actions were also assigned a status and priority. The following criteria were used:

Status

Complete- Action has been completed
Partially Complete- A percentage of the project has been completed
Active- Project is underway
Planned- Project is planned, but contingent on available funding

It should be noted that due to budgetary constraints that only a small number of strategies from the current plan had been completed.

Priority*

Low (L) - Actions classified as needed (5-7 year timeframe)
Medium (M) - Actions classified as important (3-5 year timeframe)
High (H) - Actions classified as most important (1-3 year timeframe)

*Timeframes for each priority classification were adjusted from the previous plan to be more realistic in terms of funding.

All actions are to be considered only possibilities at this point. These actions must be considered only possibilities due to budgetary and political concerns.

The following pages detail the mitigation goals, objectives, and action for each participating jurisdiction. An action number was assigned to each action to allow for easier tracking during the planning period.

SUMTER COUNTY COMMISSION
MITIGATION ACTION PLAN
2015

Sumter County
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms
3. Flood
4. Extreme Heat & Drought
5. Wildfire
6. Hurricanes and Tropical Storms
7. Severe Winter Storms

Goals

- Minimize losses due to natural disasters in Sumter County.
- Minimize injury and death due to natural disasters in Sumter County.
- Improve public awareness of safety issues concerning natural hazards.
- Achieve a plan that will insure the continuity of county government will not be significantly disrupted by disasters.
- Enhance training equipment and availability of first responders to emergencies.
- Minimize the impact of natural disasters on the economic vitality of the county.

Objectives

- Research and identify funding opportunities for mitigation related activities.
- Educate citizens on safety issues related to natural hazards.
- Educate local business owners on how businesses may be affected by natural hazards.
- Research and identify funding opportunities for local first responders

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Action	Hazards Addressed	Lead Agency	Potential Funding Source
SCC1	High	Active	High	Continue to participate in the National Flood Insurance Program by enforcement of flood ordinance	Flooding	Sumter County Commission	Local Funds
SCC2	High	Active	High	Provide technical and policy information regarding flood hazards to developers, interested parties and the general public.	Flooding	Sumter County Commission	Local Funds
SCC3	High	Active	High	Continue to clear debris from roads and drainage ways	All	Sumter County Road and Bridge Department	Local Funds
SCC4	High	Active	High	Continue to perform maintenance on roads, drainage culverts, creeks, and streams to mitigate the threat of floods	Flooding	Sumter County Road and Bridge Department	Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Action	Hazards Addressed	Lead Agency	Potential Funding Source
SCC5	High	Active	High	Continue to improve and maintain the county road system	All	Sumter County Road and Bridge Department	Local Funds
SCC6	High	Active	High	Provide the public information on actions to take during severe weather through newspaper, publications, social media, and radio announcements	All	Sumter County EMA	Local Funds
SCC7	High	Active	High	Promotion of safe rooms in new residences	Tornado, Severe Storms	Sumter County EMA	Local Funds
SCC8	High	Active	High	Promotion of safe rooms/individual shelters in existing residences	Tornado, Severe Storms	Sumter County EMA	Local Funds
SCC9	High	Active	High	Provide information to municipalities regarding natural hazards and general principles outlining procedures	All	Sumter County EMA	Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Action	Hazards Addressed	Lead Agency	Potential Funding Source
SCC10	High	Active	High	Educate local governments and groups on mitigation activities and grant funding	All	Sumter County EMA	Local Funds
SCC11	High	Active	High	Provide information to the public through local media	All	Sumter County EMA	Local Funds
SCC12	High	Active	High	Open buildings to the public during extreme heat	All	Sumter County Commission	Local Funds
SCC13	High	Active	High	Seek weatherization funding for low income residents	All	Sumter County Commission	Local Funds
SCC14	High	Active	High	Work closely with the Sumter County Forester to mitigate wildfire dangers	All	Sumter County Commission	Local Funds
SCC15	Medium	Planned	Moderate	Early Warning Alert Notification Systems	All	Sumter County Commission	HMGP/PDM/ Local Funds
SCC16	Medium	Planned	Moderate	Sirens (see attached listings in Appendix 7)	Tornado, Severe Storms	Sumter County commission, EMA	HMGP/PDM/ CDBG/Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Action	Hazards Addressed	Lead Agency	Potential Funding Source
SCC17	Medium	Planned	Moderate	Provide storm shelters in areas of high population densities and mobile home communities	Tornado, Severe Storms	Sumter County Commission	HMGP/PDM/ CDBG/Local Funds
SCC18	Medium	Planned	Moderate	Purchase generators for critical facilities	All	Sumter County Commission	HMGP/Local Funds
SCC19	Medium	Planned	Moderate	Drainage Projects in areas identified as being prone to flooding.	Flooding	Sumter County Commission	HMGP/PDM/ CDBG/Local Funds
SCC20	Medium	Planned	Moderate	Storm water Management Projects throughout the county	Flooding	Sumter County Commission	HMGP/PDM/ CDBG/Local Funds
SCC21	Medium	Planned	Moderate	Buyouts of homes in flood prone areas	Flooding	Sumter County Commission	HMGP/PDM/ CDBG/Local Funds
SCC22	Medium	Planned	Moderate	Retrofitting of critical facilities	All	Sumter County Commission	HMGP/PDM/ CDBG/Local Funds
SCC23	Medium	Planned	Moderate	Weather Training	All	Sumter County Commission, EMA	Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Action	Hazards Addressed	Lead Agency	Potential Funding Source
SCC24	Medium	Planned	Moderate	Purchase NOAA weather radios	All	Sumter County Commission, EMA	HMGP/PDM/ Local Funds
SCC25	Medium	Planned	Moderate	Fire hydrants in rural areas	Wildfire	Sumter County Commission, EMA	HMGP/PDM/ CDBG/USDA/ Local Funds
SCC26	Medium	Partially Complete	Moderate	Research procedures for keeping historical storm data with location magnitude and loss of each event	All	Sumter County EMA	Local Funds
SCC27	Medium	Partially Complete	Moderate	Begin maintaining an inventory of critical facilities with values and contact information	All	Sumter County EMA	Local Funds

TOWN OF CUBA
MITIGATION ACTION PLAN
2015

Town of Cuba
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Extreme Heat and Drought
3. Hurricane
4. Severe Storms
5. Severe Winter Storms

Goals

- Minimize losses due to natural disasters in Cuba.
- Minimize injury and death due to natural disasters in Cuba.

Objectives

- Provide more residents access to tornado sirens.
- Improve infrastructure and services to lessen the impact of natural hazards on the community.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
C1	High	Complete	High	Join NFIP	Flooding	Town of Cuba	Local Funding
C2	High	Active	High	Continue enforcement of flood ordinance	Flooding	Town of Cuba	Local Funding
C3	High	Active	High	Provide technical and policy information regarding flood hazards to developers, interested parties and the general public.	Flooding	Town of Cuba	Local Funding
C4	High	Active	High	Continue to enforce zoning ordinances	All	Town of Cuba	Local Funding
C5	High	Active	High	Continue to enforce building codes	All	Town of Cuba	Local Funding
C6	High	Active	High	Continue to enforce subdivision regulations	All	Town of Cuba	Local Funding
C7	High	Active	High	Post drought and extreme heat notices in town	Extreme Heat and Drought	Town of Cuba	Local Funding
C8	High	Active	High	Maintain and Improve streets, culverts, and drainage infrastructure in town	Flooding	Town of Cuba	Local Funding
C9	High	Active	High	Open public buildings during extreme heat	Extreme Heat	Town of Cuba	Local Funding
C10	High	Active	High	Seek weatherization funding for low income residents	All	Town of Cuba	Local Funding
C11	High	Active	High	Work closely with Sumter County forester to mitigate wildfire dangers	Wildfire	Town of Cuba	Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
C12	Medium	Planned	Moderate	Tornado sirens	Tornadoes	Town of Cuba	HMGP/PDM/Local Funding
C13	Medium	Planned	Moderate	Purchase of tornado sirens for areas with concentrations of population	Tornadoes	Town of Cuba	HMGP/PDM/Local Funding
C14	Medium	Planned	Moderate	Provide storm shelters in areas of high population density and mobile home communities	Tornadoes, Severe Storms	Town of Cuba	HMGP/PDM/CDBG/Local Funding
C15	Medium	Planned	Moderate	Storm water management projects throughout town	Flooding	Town of Cuba	HMGP/PDM/Local Funding
C16	Medium	Planned	Moderate	Individual Shelters in Residences	Tornadoes, Severe Storms	Town of Cuba	HMGP/PDM/Local Funding
C17	Medium	Planned	Moderate	Drainage Projects in Flood Prone Areas	Flooding	Town of Cuba	HMGP/PDM/CDBG/Local Funding
C18	Medium	Planned	Moderate	Purchase NOAA Weather Radios for Town's Residents	All	Town of Cuba	HMGP/PDM/Local Funding
C19	Medium	Planned	Moderate	Purchase of generators for critical facilities and utilities	All	Town of Cuba	HMGP/PDM/Local Funding
C20	Medium	Planned	Moderate	Sediment Control Projects	All	Town of Cuba	HMGP/PDM/Local Funding
C21	Medium	Planned	Moderate	Early Warning Alert Notification Systems	All	Town of Cuba	HMGP/PDM/Local Funding
C22	Low	Planned	Moderate	Build new fire station	Wildfire	Town of Cuba	USDA/Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
C23	Low	Planned	Moderate	New treatment lagoon	Flooding	Town of Cuba	USDA/CDBG/Local Funding
C24	Low	Planned	Low	Retrofit Critical Facilities	Tornadoes, Severe Storms	Town of Cuba	HMGP/PDM/CDBG/Local Funding

TOWN OF EMELLE
MITIGATION ACTION PLAN
2015

Town of Emelle

Prioritized Threat by Jurisdiction (1=highest priority)

1. Severe Storms
2. Tornadoes
3. Extreme Heat and Drought
4. Wildfire
5. Hurricane
6. Earthquake

Goals

- Minimize losses due to natural disasters in Emelle.
- Minimize injury and death due to natural disasters in Emelle.

Objectives

- Provide more residents access to tornado sirens.
- Improve infrastructure and services to lessen the impact of natural hazards on the community.
- Provide residents access to storm shelters during severe weather.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
EM1	High	Active	High	Community storm shelters	All	Town of Emelle	HMGP/PDM/CDBG/Local Funding
EM2	High	Active	High	Tornado sirens	All	Town of Emelle	HMGP/PDM/CDBG/Local Funding
EM3	High	Active	High	Provide air conditioned buildings	All	Town of Emelle	Local Funding
EM4	High	Active	High	Maintain and Improve streets, culverts, and drainage infrastructure in town	All	Town of Emelle	HMGP/PDM/CDBG/Local Funding
EM5	High	Active	High	Seek weatherization funding for low income residents	All	Town of Emelle	Local Funding
EM6	High	Active	High	Work Closely with Sumter County Forester to mitigate wildfire dangers	Wildfire	Town of Emelle	Local Funding
EM7	Medium	Planned	Moderate	Early Warning Alert Notification Systems	All	Town of Emelle	HMGP/PDM/Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
EM8	Medium	Planned	Moderate	Improve Water Supply	All	Town of Emelle	CDBG/USDA/Local Funding
EM9	Medium	Planned	Moderate	Purchase of tornado sirens for areas with concentrations of population	Tornadoes	Town of Emelle	HMGP/PDM/Local Funding
EM10	Medium	Planned	Moderate	Provide storm shelters in areas of high population density and mobile home communities	Tornadoes, Severe Storms	Town of Emelle	HMGP/PDM/CDBG/Local Funding
EM11	Medium	Planned	Moderate	Storm water management projects throughout town	Flooding	Town of Emelle	HMGP/PDM/Local Funding
EM12	Medium	Planned	Moderate	Individual Shelters in Residences	Tornadoes, Severe Storms	Town of Emelle	HMGP/PDM/Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
EM13	Medium	Planned	Moderate	Purchase NOAA Weather Radios for Town's Residents	All	Town of Emelle	HMGP/PDM/Local Funding
EM14	Medium	Planned	Moderate	Purchase of generators for critical facilities and utilities	All	Town of Emelle	HMGP/PDM/Local Funding
EM15	Low	Planned	Low	Retrofit Critical Facilities	Tornadoes, Severe Storms	Town of Emelle	HMGP/PDM/CDBG/Local Funding

TOWN OF EPES
MITIGATION ACTION PLAN
2015

Town of Epes
Prioritized Threat by Jurisdiction (1=highest priority)

1. Flood
2. Tornadoes
3. Severe Winter Storms
4. Hurricane
5. Extreme Heat and Drought

Goals

- Minimize losses due to natural disasters in Epes.
- Minimize injury and death due to natural disasters in Epes.

Objectives

- Provide more residents access to tornado sirens.
- Improve infrastructure and services to lessen the impact of natural hazards on the community.
- Provide residents access to storm shelters during severe weather.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
EP1	High	Complete	High	Join NFIP	Flooding	Town of Epes	Local Funding
EP2	High	Active	High	Continue to participate in the national Flood Insurance Program by enforcing flood ordinances	Flooding	Town of Epes	Local Funding
EP3	High	Active	High	Provide technical and policy information regarding flood hazards to developers, interested parties and the general public.	Flooding	Town of Epes	Local Funding
EP4	High	Active	High	Post drought and extreme heat notices in town	Extreme Heat and Drought	Town of Epes	Local Funding
EP5	High	Active	High	Maintain and Improve streets, culverts, and drainage infrastructure in town	Flooding	Town of Epes	Local Funding
EP6	Medium	Planned	Moderate	Provide storm shelters in areas of high population density and mobile home communities	Tornadoes, Severe Storms	Town of Epes	HMGP/PDM/CDBG/Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
EP7	Medium	Planned	Moderate	Storm water management projects throughout town	Flooding	Town of Epes	HMGP/PDM/Local Funding
EP8	Medium	Planned	Moderate	Individual Shelters in Residences	Tornadoes, Severe Storms	Town of Epes	HMGP/PDM/Local Funding
EP9	Medium	Planned	Moderate	Drainage Projects in Flood Prone Areas	Flooding	Town of Epes	HMGP/PDM/CDBG/Local Funding
EP10	Medium	Planned	Moderate	Purchase of generators for critical facilities and utilities	All	Town of Epes	HMGP/PDM/Local Funding
EP11	Medium	Planned	Moderate	Housing Rehabilitation	All	Town of Epes	CDBG/Local Funding
EP12	Medium	Planned	Moderate	Extend and Provide Sewer service to all residents	All	Town of Epes	CDBG/Local Funding
EP13	Low	Planned	Low	Retrofitting of Critical Facilities	Tornadoes, Severe Storms	Town of Epes	HMGP/PDM/CDBG/Local Funding
EP14	Low	Planned	Low	Tornado Sirens	Tornadoes	Town of Epes	HMGP/PDM/CDBG/Local Funding

TOWN OF GAINESVILLE
MITIGATION ACTION PLAN
2015

Town of Gainesville
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Flood
3. Severe Storms
4. Hurricanes
5. Earthquake
6. Drought

Goals

- Minimize losses due to natural disasters in Gainesville.
- Minimize injury and death due to natural disasters in Gainesville.

Objectives

- Provide residents access to tornado sirens and community shelters.
- Improve infrastructure to make Gainesville more hazard resistant.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
GV1	High	Planned	High	Become a member of the national Flood Insurance Program	Flooding	Town of Gainesville	Local Funding
GV2	High	Active	High	Post drought and extreme heat notices in town	Extreme Heat and Drought	Town of Gainesville	Local Funding
GV3	High	Active/Planned	High	Maintain and Improve streets, culverts, and drainage infrastructure in town	Flooding	Town of Gainesville	Local Funding
GV4	High	Active	High	Provide air conditioned buildings	Extreme Heat	Town of Gainesville	Local Funding
GV5	High	Active	High	Seek weatherization funds for low income households	All	Town of Gainesville	Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
GV6	High	Active	High	Work closely with the Sumter County Forester to mitigate wildfire dangers	Wildfire	Town of Gainesville	Local Funding
GV7	Medium	Planned	Moderate	Tornado Sirens	Tornadoes	Town of Gainesville	HMGP/PDM/CDBG/Local Funding
GV8	Medium	Planned	Moderate	Early Warning Alert Notification Systems	All	Town of Gainesville	HMGP/PDM/Local Funding
GV9	Medium	Planned	Moderate	Provide storm shelters in areas of high population density and mobile home communities	Tornadoes, Severe Storms	Town of Gainesville	HMGP/PDM/CDBG/Local Funding
GV10	Medium	Planned	Moderate	Storm water management projects throughout town	Flooding	Town of Gainesville	HMGP/PDM/Local Funding
GV11	Medium	Planned	Moderate	Individual Shelters in Residences	Tornadoes, Severe Storms	Town of Gainesville	HMGP/PDM/Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
GV12	Medium	Planned	Moderate	Drainage Projects in Flood Prone Areas	Flooding	Town of Gainesville	HMGP/PDM/CDBG/Local Funding
GV13	Medium	Planned	Moderate	Purchase of generators for critical facilities and utilities	All	Town of Gainesville	HMGP/PDM/Local Funding
GV14	Medium	Planned	Moderate	Housing Rehabilitation	All	Town of Gainesville	CDBG/Local Funding
GV15	Low	Planned	Low	Retrofitting of Critical Facilities	Tornadoes, Severe Storms	Town of Gainesville	HMGP/PDM/CDBG/Local Funding

TOWN OF GEIGER
MITIGATION ACTION PLAN
2015

Town of Geiger
Prioritized Threat by Jurisdiction (1=highest priority)

1. Extreme Heat and Drought
2. Severe Winter Storms
3. Wildfire
4. Tornado
5. Hurricane
6. Earthquake

Goals

- Minimize injury and death due to natural disasters in Geiger.

Objectives

- Provide more residents access to tornado sirens and shelters.
- Improve infrastructure to lessen the effects of disasters.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
GE1	High	Complete	High	Join NFIP Program	Flooding	Town of Geiger	Local Funding
GE2	High	Active	High	Provide technical and policy information regarding flood hazards to developers, interested parties and the general public.	Flooding	Town of Geiger	Local Funding
GE3	High	Active	High	Maintain membership in NFIP by enforcing flood ordinance	Flooding	Town of Geiger	Local Funding
GE4	High	Active	High	Post drought and extreme heat notices in town	Extreme Heat and Drought	Town of Geiger	Local Funding
GE5	High	Active/ Planned	High	Maintain and Improve streets, culverts, and drainage infrastructure in town	Flooding	Town of Geiger	Local Funding
GE6	High	Active	High	Seek weatherization funds for low income households	All	Town of Geiger	Local Funding
GE7	High	Active	High	Work closely with the Sumter County Forester to mitigate wildfire dangers	Wildfire	Town of Geiger	Local Funding
GE8	Medium	Planned	Moderate	Tornado Sirens	Tornadoes	Town of Geiger	HMGP/PDM/ CDBG/Local Funding

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
GE9	Medium	Planned	Moderate	Early Warning Alert Notification Systems	All	Town of Geiger	HMGP/PDM/ Local Funding
GE10	Medium	Planned	Moderate	Provide storm shelters in areas of high population density and mobile home communities	Tornadoes, Severe Storms	Town of Geiger	HMGP/PDM/ CDBG/Local Funding
GE11	Medium	Planned	Moderate	Storm water management projects throughout town	Flooding	Town of Geiger	HMGP/PDM/ Local Funding
GE12	Medium	Planned	Moderate	Individual Shelters in Residences	Tornadoes, Severe Storms	Town of Geiger	HMGP/PDM/ Local Funding
GE13	Medium	Planned	Moderate	Drainage Projects in Flood Prone Areas	Flooding	Town of Geiger	HMGP/PDM/ CDBG/Local Funding
GE14	Medium	Planned	Moderate	Purchase of generators for critical facilities and utilities	All	Town of Geiger	HMGP/PDM/ Local Funding
GE15	Medium	Planned	Moderate	Housing Rehabilitation	All	Town of Geiger	CDBG/Local Funding
GE16	Low	Planned	Low	Retrofitting of Critical Facilities	Tornadoes, Severe Storms	Town of Geiger	HMGP/PDM/ CDBG/Local Funding

CITY OF LIVINGSTON
MITIGATION ACTION PLAN
2015

City of Livingston

Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms
3. Flood
4. Dam Failure
5. Extreme Heat & Drought
6. Wildfire
7. Severe Winter Storms
8. Hurricanes
9. Earthquakes
10. Landslides
11. Expansive Soils

Goals

- Minimize injury, death, and property loss due to natural disasters in Livingston.

Objectives

- Remove at risk residences from frequently flooded areas.
- Continue to ensure minimum or better standards are followed in construction of new residences.
- Provide more residents access to tornado sirens.
- Apply for funding for generators, community shelters, and early warning notification systems.
- Pursue drainage and storm water management projects.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
L1	High	Active	High	Continued compliance in NFIP by enforcement of Flood Ordinance	Flooding	City of Livingston	Local Funding
L2	High	Active	High	Provide technical and policy information regarding flood hazards to developers, interested parties and the general public.	Flooding	City of Livingston	Local Funding
L3	High	Active	High	Continue to enforce zoning ordinances	All	City of Livingston	Local Funds
L4	High	Active	High	Continue to enforce building codes	All	City of Livingston	Local Funds
L5	High	Active	High	Continue to enforce subdivision regulations	All	City of Livingston	Local Funds
L6	High	Active	High	Open buildings to the public during extreme heat	Extreme Heat and Drought	City of Livingston	Local Funds
L7	High	Active	High	Continue to help UWA monitor Lake LU dam	Dam Failure	City of Livingston	Local Funds
L8	High	Active	High	Keep public informed of drought conditions and water conservation efforts	Drought	City of Livingston	Local Funds
L9	High	Active	High	Continue to maintain drainage infrastructure and city streets	Flooding	City of Livingston	Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
L10	High	Planned	Moderate	Purchase of tornado sirens for areas with concentrations of population	Tornado	City of Livingston	HMGP/PDM/ Local Funds
L11	High	Planned	Moderate	Early Warning Notification Systems	All	City of Livingston	HMGP/PDM/ Local Funds
L12	High	Planned	Moderate	Provide storm shelters in areas of high population density and mobile home communities	Tornadoes, Severe Storms	City of Livingston	HMGP/PDM/ CDBG/Local Funds
L13	High	Planned	Moderate	Purchase generators for critical facilities and fire stations	All	City of Livingston	HMGP/PDM/ Local Funds
L14	High	Planned	Moderate	Drainage Projects in areas identified as being prone to flooding.	Flooding	City of Livingston	HMGP/PDM/ CDBG/Local Funds
L15	High	Planned	Moderate	Storm water Management Projects throughout City.	Flooding	City of Livingston	HMGP/PDM/ CDBG/Local Funds
L16	High	Planned	Moderate	Purchase NOAA Weather Radios	All	City of Livingston	HMGP/PDM/ Local Funds
L17	High	Planned	Moderate	Improve drainage infrastructure	Flooding	City of Livingston	HMGP/PDM/ CDBG/Local Funds
L18	High	Planned	Moderate	Retrofitting of critical facilities	Tornadoes, Severe Storms	City of Livingston	HMGP/PDM/ CDBG/Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
L19	Medium	Planned	Moderate	Seek weatherization funding for low income residents	All	City of Livingston	Community Action/Local Funds
L20	Medium	Planned	Moderate	Work closely with Sumter Forester to mitigate wildfire dangers	Wildfire	City of Livingston	Local Funds
L21	Medium	Planned	Moderate	Community Storm Shelters	Tornadoes, Severe Storms	City of Livingston	HMGP/PDM/ CDBG/Local Funds
L22	Medium	Planned	Moderate	Flood buyouts	Flooding	City of Livingston	HMGP/PDM/ Local Funds
L23	Medium	Planned	Moderate	Bridge Work- Hopkins Street	All	City of Livingston	Local Funds
L24	Medium	Planned	Moderate	Bridge Work on Arrington Street	All	City of Livingston	Local Funds
L25	Medium	Planned	Moderate	Bridge on Pickens Street	All	City of Livingston	Local Funds
L26	Medium	Planned	Moderate	Storm drainage off N. Washington between Hudson and Underwood.	Flooding	City of Livingston	HMGP/PDM/ CDBG/Local Funds

CITY OF YORK
MITIGATION ACTION PLAN
2015

City of York

Prioritized Threat by Jurisdiction (1=highest priority)

1. Flood
2. Severe Storms/Tornado
3. Extreme Heat and Drought
4. Severe Winter Storms

Goals

- Minimize injury, death, and property loss due to natural disasters in York.

Objectives

- Continue to ensure minimum or better standards are followed in construction of new residences.
- Improve infrastructure and services to lessen the impact of natural hazards on the community.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
Y1	High	Active	High	Continued compliance in NFIP by enforcement of Flood Ordinance	Flooding	City of York	Local Funding
Y2	High	Active	High	Provide technical and policy information regarding flood hazards to developers, interested parties and the general public.	Flooding	City of York	Local Funding
Y3	High	Active	High	Continue to enforce zoning ordinances	All	City of York	Local Funds
Y4	High	Active	High	Continue to enforce building codes	All	City of York	Local Funds
Y5	High	Active	High	Continue to enforce subdivision regulations	All	City of York	Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
Y6	High	Active	High	Open buildings to the public during extreme heat	Extreme Heat and Drought	City of York	Local Funds
Y7	High	Active	High	Apply for funding for fire and rescue	All	City of York	Local Funds
Y8	High	Planned	High	Develop a dam safety plan for Lake Lurleen Dam	Dam Failure	City of York	Local Funds
Y9	High	Active	High	Keep public informed of drought conditions and water conservation efforts	Drought	City of York	Local Funds
Y10	High	Active	High	Continue to maintain drainage infrastructure and city streets	Flooding	City of York	Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
Y11	High	Planned	Moderate	Purchase of tornado sirens for areas with concentrations of population	Tornado	City of York	HMGP/PDM/Local Funds
Y12	High	Planned	Moderate	Early Warning Notification Systems	All	City of York	HMGP/PDM/Local Funds
Y13	High	Planned	Moderate	Provide storm shelters in areas of high population density and mobile home communities	Tornadoes, Severe Storms	City of York	HMGP/PDM/CDBG/Local Funds
Y14	High	Planned	Moderate	Purchase generators for critical facilities and utilities	All	City of York	HMGP/PDM/Local Funds
Y15	High	Planned	Moderate	Drainage Projects in areas identified as being prone to flooding.	Flooding	City of York	HMGP/PDM/CDBG/Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
Y16	High	Planned	Moderate	Storm water Management Projects throughout City.	Flooding	City of York	HMGP/PDM/CDBG/Local Funds
Y17	High	Planned	Moderate	Purchase NOAA Weather Radios	All	City of York	HMGP/PDM/Local Funds
Y18	High	Planned	Moderate	Improve drainage infrastructure	Flooding	City of York	HMGP/PDM/CDBG/Local Funds
Y19	High	Planned	Moderate	Retrofitting of critical facilities	Tornadoes, Severe Storms	City of York	HMGP/PDM/CDBG/Local Funds
Y20	Medium	Planned	Moderate	Seek weatherization funding for low income residents	All	City of York	Community Action/Local Funds
Y21	Medium	Planned	Moderate	Work closely with Sumter Forester to mitigate wildfire dangers	Wildfire	City of York	Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
Y22	Medium	Planned	Moderate	Community Storm Shelters	Tornadoes, Severe Storms	City of York	HMGP/PDM/CDBG/Local Funds
Y23	Medium	Planned	Moderate	Flood control on east side of city, Rabbit Branch area	Flooding	City of York	HMGP/PDM/CDBG/Local Funds
Y24	Low	Planned	Low	Seek funding to address soil erosion	Soil erosion, flooding	City of York	HMGP/PDM/CDBG/Local Funds
Y25	Low	Planned	Low	Seek funding for new sewage lagoon	All	City of York	CDBG/USDA/Local Funds

The following actions included in the previous plan were not included in this plan:

Action	Reason Not Included
New wells to provide water	Complete

SUMTER COUNTY BOARD OF EDUCATION
MITIGATION ACTION PLAN
2015

Sumter County School System
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms/Hurricanes
3. Flood
4. Extreme Heat
5. Drought
6. Wildfire
7. Severe Winter Storms

Goals

- Provide better warning system to students.
- Minimize the loss of life and injury to students.
- Ensure continuity of education system.
- Ensure safety of campuses from hazards.

Objectives

- Weather sirens at schools.
- Storm shelters at schools.
- Retrofit school buildings.
- Correct drainage/storm water management issues on campuses.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
SCBOE1	High	Active	High	Help distribute hazard safety information to students	All	Sumter County BOE	Local Funds
SCBOE2	High	Active	High	Work closely with Sumter County Forester to mitigate wildfire danger	Wildfire	Sumter County BOE	Local Funds
SCBOE3	Medium	Planned	Moderate	Provide storm shelters at school	Tornadoes, Severe Storms, Severe Winter Storms	Sumter County BOE	HMGP/PDM/ALSDE/Local Funds
SCBOE4	Medium	Planned	Moderate	Purchase generators for critical facilities	All	Sumter County BOE	HMGP/PDM/ALSDE/Local Funds
SCBOE5	Medium	Planned	Moderate	Retrofitting of Schools	Tornadoes, Severe Storms, Severe Winter Storms	Sumter County BOE	HMGP/PDM/ALSDE/Local Funds

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
SCBOE6	Medium	Planned	Moderate	Correct storm water management/ drainage issue son school grounds	Flooding	Sumter County BOE	HMGP/PDM/ALSDE/Local Funds
SCBOE7	Medium	Planned	Moderate	Early Warning Alert Notification Systems	All	Sumter County BOE	HMGP/PDM/ALSDE/Local Funds
SCBOE8	Medium	Planned	Moderate	Purchase NOAA Weather Radios	All	Sumter County BOE	HMGP/PDM/ALSDE/Local Funds

SUMTER COUNTY WATER AUTHORITY
MITIGATION ACTION PLAN
2015

Sumter County Water Authority
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms/Hurricanes
3. Flood
4. Extreme Heat
5. Drought
6. Wildfire
7. Severe Winter Storms

Goals

- Minimize losses due to natural disasters in Sumter County.
- Minimize injury and death due to natural disasters in Sumter County.

Objectives

- Generators at each pumping station and communication station.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
SCWA1	High	Partially Complete	Moderate	Purchase generators for all facilities SCWA has identified as critical facilities in Section V	All	SCWA	HMGP/PDM/Local Funds
SCWA2	Medium	Planned	Moderate	Early Warning Alert Notification Systems	All	SCWA	HMGP/PDM/Local Funds

SUMTER COUNTY SEWER AUTHORITY
MITIGATION ACTION PLAN
2015

Sumter County Sewer Authority
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms
3. Flood
4. Severe Winter Storms
5. Extreme Heat & Drought
6. Wildfire

Goals

- Minimize loss and damage to infrastructure due to natural hazards.
- Minimize loss of service due to natural hazards.
- Improve public awareness of safety issues concerning natural hazards.
- Prevent use of wastewater to mount biological or chemical attack against North Sumter residents
- Improve physical security of lift stations and lagoon using video and audio surveillance

Objectives

- Acquire generators to provide backup power to pumping stations.
- Upgrades to treatment facility to improve disaster readiness.
- Expand sewer service to additional customers in North Sumter
- Assist in meeting USDA Emergency Response Plan (ERP) requirements
- Improve physical security of lift stations and lagoon using audio and video

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
SCSA1	High	Planned	Moderate	Add one lift station in Geiger, AL to improve wastewater flow rate	All	SCSA	HMGP/PDM/Local Funds
SCSA2	High	Planned	Moderate	Add generators to two lift stations	All	SCSA	HMGP/PDM/Local Funds
SCSA3	Medium	Planned	Moderate	Improve physical security of lift stations and lagoon using audio and video	All	SCSA	HMGP/PDM/Local Funds

UNIVERSITY OF WEST ALABAMA
MITIGATION ACTION PLAN
2015

University of West Alabama
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms
3. Flash Flood
4. Extreme Heat & Drought
5. Wildfire
6. Hurricanes and Tropical Storms
7. Severe Winter Storms

Goals

- Minimize losses due to natural disasters on UWA Campus.
- Minimize injury and death due to natural disasters on UWA Campus.

Objectives

- Provide temporary shelter facilities.
- Monitor Lake LU Dam.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
UWA1	High	Active	High	Monitor and maintain Lake LU dam	Dam Failure	UWA	Local funds
UWA2	Medium	Planned	Moderate	Provide shelter facilities	All	UWA	PDM/HMGP/Local Funds

SUMTER COUNTY OPPORTUNITY, INC.
MITIGATION ACTION PLAN
2015

Sumter County Opportunity, Inc.
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms
3. Flash Flood
4. Extreme Heat & Drought
5. Wildfire
6. Hurricanes and Tropical Storms
7. Severe Winter Storms

Goals

- Minimize losses due to natural disasters at head start centers.
- Minimize injury and death due to natural disasters at head start centers.

Objectives

- Provide a safe place for students during storm events.
- Provide warning systems for head start centers.
- Provide backup power to head start centers.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
SCOI1	Medium	Planned	Moderate	Retrofit head start facilities	Tornadoes, Severe Storms	Sumter County Opportunity, Inc.	HMGP/PDM/Local Funds
SCOI2	Medium	Planned	Moderate	Provide warning systems at each center	All	Sumter County Opportunity, Inc.	HMGP/PDM/Local Funds
SCOI3	Medium	Planned	Moderate	Provide generators at each center	All	Sumter County Opportunity, Inc.	HMGP/PDM/Local Funds

NORTH SUMTER DEVELOPMENT CORPORATION
MITIGATION ACTION PLAN
2015

North Sumter Development Corporation
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms
3. Flood
4. Extreme Heat & Drought
5. Wildfire
6. Hurricanes and Tropical Storms
7. Severe Winter Storms

Goals

- Minimize losses due to natural disasters.
- Minimize injury and death due to natural disasters.
- Improve public awareness of safety issues concerning natural hazards.

Objectives

- Research and identify funding opportunities for mitigation related activities.
- Educate citizens on safety issues related to natural hazards.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
NSCDF1	Medium	Planned	Low	Weather radios for residents	All	North Sumter Community Development	HMGP/PDM/Local Funds
NSCDF2	Medium	Planned	Low	Provide hazard information to members	All	North Sumter Community Development	Local Funds

NORTH SUMTER CITIZENS FOR BETTER GOVERNMENT
MITIGATION ACTION PLAN
2015

North Sumter Citizens for Better Government
Prioritized Threat by Jurisdiction (1=highest priority)

1. Tornado
2. Severe Storms
3. Flood
4. Extreme Heat & Drought
5. Wildfire
6. Hurricanes and Tropical Storms
7. Severe Winter Storms

Goals

- Minimize losses due to natural disasters.
- Minimize injury and death due to natural disasters.
- Improve public awareness of safety issues concerning natural hazards.

Objectives

- Research and identify funding opportunities for mitigation related activities.
- Educate citizens on safety issues related to natural hazards.

Potential Mitigation Actions

Action #	Priority	Status	Cost Benefit	Mitigation Measure	Hazards Addressed	Lead Agency	Funding Source
NSCFBG1	Medium	Planned	Low	Weather radios for residents	All	North Sumter Citizens for Better Government	HMGP/PDM/Local Funds
NSCFBG2	Medium	Planned	Low	Provide hazard information to members	All	North Sumter Citizens for Better Government	Local Funds
NSCFBG3	Medium	Planned	Low	Backup generator for Panola Community Center	All	North Sumter Citizens for Better Government	HMGP/PDM/Local Funds

Summary of Changes Made in Plan Update
Section VIII. Plan Maintenance

Section VIII of this plan addresses federal requirement §201.6 (c) (4) (i)-(iii).
(4) A *plan maintenance process* that includes:

(i) A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

(ii) A process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

(iii) Discussion on how the community will continue public participation in the plan maintenance process.

The plan maintenance section was reviewed by ATRC and the Sumter County EMA. Information regarding the annual review of the plan was updated. The Incorporation into Existing Planning Mechanisms section was also revised to provide information by jurisdiction. All revisions/updates were approved by the Natural Hazards Steering Committee.

VIII. Plan Maintenance

The planning cycle for the Sumter County Hazard Mitigation Plan is five years. The Natural Hazards Steering Committee determined this planning cycle based on FEMA's guidelines. If FEMA changes their guidelines, the county's guidelines will be adjusted accordingly. In addition the plan maintenance section was compiled using suggestions from the Natural Hazards Steering Committee.

Hazard Mitigation Committee Structures

The structure of committees will be kept as they were for the development of this plan. The Natural Hazard Steering Committee will be appointed by position. The following is the list of agencies or positions that will be requested to serve on the committee:

- Sumter EMA: Committee Chair
- Sumter County Water Authority, Manager
- University of West Alabama, Director-UWA Office of Emergency Preparedness
- Sumter County Board of Education, Superintendent
- Sumter County Opportunity, Inc., Director
- Sumter County Commission/ Road and Bridge Department, Engineer
- Town of Cuba, Mayor
- Town of Emelle, Mayor
- Town of Epes, Mayor
- Town of Gainesville, Mayor
- Town of Geiger, Mayor
- City of Livingston, Mayor
- City of York, Mayor
- Sumter County Sewer Authority, Secretary/Treasurer
- North Sumter Development Authority
- North Sumter Citizens for Better Government

Monitoring and Evaluation of the Plan

Due to staffing shortages, the county has been unable to complete an annual review of their plan. The county has decided to change the review process to better fit the county's needs. The Natural Hazards Steering committee member representing each jurisdiction will be responsible for monitoring and evaluating their portion of the plan annually during this planning cycle.

Jurisdictions will use the following criteria will be used will be used to monitor the plan's effectiveness:

- Do the goals and objectives outlined in the plan still apply to current conditions?
- Has the nature, magnitude, and/or type of risk changed?
- Are the resources currently available to implement the plan appropriately?
- Has any jurisdiction had implementation problems and if so, what is the nature of them (technical, political, funding, etc.)?
- Have the outcomes from implemented strategies been the expected outcomes?
- Has each jurisdiction or agency worked toward its hazard mitigation goals?

If the jurisdiction feels that the plan is not satisfying the above criteria, the EMA Director will be

contacted. EMA will call a meeting of the Natural Hazards Steering Committee for changes that affect all jurisdictions. The public will be invited to this meeting through postings and community announcements. For revisions that affect all participating jurisdictions, the Natural Hazards Steering Committee will approve the changes. For jurisdiction specific revisions, only the jurisdiction making the revision will have to approve the change. The jurisdiction will work with the Natural Hazard Steering Committee Chairman to submit these changes.

During this review, it will also be the responsibility of the local government to provide an annual update on the implementation of the mitigation actions provided in the plan. Each participant will be asked to provide updated status and priority information for the actions identified in the plan.

The county has been included in one disaster declaration since the last plan update. The April 27, 2011 tornado outbreak. The EMA evaluated its mitigation plan after this historic event. The EMA determined the plan was still a current document and no revisions were needed.

For this planning cycle, a similar review process will be in place. The EMA Director will review the plan following a disaster. She will contact members of the Natural Hazard Steering Committee to gather information before making a determination on the plan's effectiveness. The plan will be evaluated to determine that the hazard was properly addressed and that mitigation action plans are appropriate.

In the event that revisions are deemed necessary, the Natural Hazards Steering Committee will convene to approve all amendments/revisions. The public will also be encouraged to attend these meetings to provide input. For jurisdiction specific revisions, only the jurisdiction making the revision will have to approve the change. The jurisdiction will work with the Natural Hazard Steering Committee Chairman to submit these changes.

Updating the Plan

The Sumter County Natural Hazards Mitigation Plan will be updated every five years as required by FEMA. The EMA director will begin making arrangements for the plan's update eighteen months before expiration. The process of updating the plan will be undertaken in the same way as the development of this update. The Natural Hazards Mitigation Steering Committee will reconvene for the plan update.

The public participation component will modified to encourage more participation. At least two public meetings will be held to involve the public in the update process. These meetings will be advertised in the county newspaper. The EMA will also identify local citizen groups such as senior centers, civic groups, and neighborhood associations to which hazard mitigation presentations can be made. Survey Monkey or an equivalent online survey website will be used to gather public opinion on hazard issues.

Special attention will be given to encouraging neighboring counties' EMA offices (Kemper, Choctaw, Greene, Marengo, and Pickens) to participate. EMA will contact them directly to solicit their participation. The county will also consult with the following agencies during the plan formation stage: Alabama Department of Transportation (ALDOT), Alabama Department of Environmental Management (ADEM), Alabama Historical Commission (AHC), US Army Corps of

Engineers (USACE), US Fish and Wildlife (USFW), National Resource Conservation Service (NRCS), public utilities, institutions of higher education, large employers in the county, community service programs, American Red Cross, and local chambers of commerce. Included in the public utilities group will be invitations to each private water system in the county. These systems are not eligible applicants for FEMA funding and did not participate in this planning process. During the next update they will be encouraged to participate, so the county may apply on their behalf.

Drafts of the updated plan will be available for public comment. Once comments are received and incorporated when necessary, the plan will be submitted the AEMA and FEMA for review.

Incorporation into Existing Planning Mechanisms

The Sumter County Hazard Mitigation Plan will be incorporated into existing planning mechanisms in all participating jurisdictions.

Sumter County Commission: The Sumter County Commission considered mitigation during the development of its Comprehensive Plan in 2013. The goals and objectives defined in the plan did not conflict with any hazard mitigation goals and objectives. Any updates to this plan will incorporate hazard mitigation.

Town of Cuba: The Town of Cuba will consider hazard mitigation while considering adjustments to building and zoning ordinances. No ordinances will be modified in such a way that mitigation efforts will be hindered. Hazard mitigation goals, objectives, and strategies will be reviewed and incorporated in the event the town updates its comprehensive plan.

Town of Emelle: No formal planning is in place for the Town of Emelle. If the town undertakes any planning effort, such as a comprehensive plan, mitigation goals and objectives will be reflected. No strategies will be included that would hinder natural hazard mitigation.

Town of Epes: No formal planning is in place for the Town of Epes. If the town undertakes any planning effort, such as a comprehensive plan, mitigation goals and objectives will be reflected. No strategies will be included that would hinder natural hazard mitigation.

Town of Gainesville: No formal planning is in place for the Town of Gainesville. If the town undertakes any planning effort, such as a comprehensive plan, mitigation goals and objectives will be reflected. No strategies will be included that would hinder natural hazard mitigation.

Town of Geiger: No formal planning is in place for the Town of Geiger. If the town undertakes any planning effort, such as a comprehensive plan, mitigation goals and objectives will be reflected. No strategies will be included that would hinder natural hazard mitigation.

City of Livingston: The City of Livingston will consider hazard mitigation while considering adjustments to building and zoning ordinances. No ordinances will be modified in such a way that mitigation efforts will be hindered. Hazard mitigation goals, objectives, and strategies will be reviewed and incorporated in the event the city updates its comprehensive plan.

City of York: The City of York will consider hazard mitigation while considering adjustments to building and zoning ordinances. No ordinances will be modified in such a way that mitigation efforts will be hindered. Hazard mitigation goals, objectives, and strategies will be reviewed and incorporated in the event the city updates its comprehensive plan.

Continued Public Involvement

In the event revisions that affect all jurisdictions are deemed necessary to the plan, the Natural Hazards Steering Committee will convene to approve all amendments/revisions. The public will also be encouraged to attend these meetings to provide input.

All jurisdictions and the EMA will encourage public participation in mitigation planning by emphasizing its purpose and importance during weather related events such as Severe Weather Awareness Week, Hurricane Preparedness Week, Summer Weather Safety Week, and Winter Weather Awareness Week.

Hard copies of the plan will be available to the public by submitting a request to the EMA. A copy of the plan will be on file at the EMA office and available for review. Copies of the plan will also be available in each jurisdiction. The plan will be available for download online. Information regarding where to send comments on the plan is provided inside of the front cover of the document. The EMA will be responsible for keeping a file of all comments received. All comments will be considered annually during the review of the plan. No public comments have been received to be integrated into this update.

APPENDIX 1

Mailing Lists/Correspondence

Obituaries

Virginia Cockrell

Mrs. Virginia Cockrell, age 62, of Emelle died at her home on October 5, 2014. Funeral services for Mrs. Cockrell were held on Saturday, October 11, 2014, at 11 a.m. at New Jones Baptist Church, Emelle. Rev. Coley Rogers is pastor; Rev. Edmond Bell officiated with burial in Thomas Cemetery, Emelle.

Mrs. Cockrell is survived by her children; namely, Mr. William Earl Cockrell, Mrs. Vanessa Huff, Ms. Remonia

First Baptist Church, 254 McConnell Street, York. Rev. Jonathan Byrd, pastor, is to deliver the eulogy. Maurice will lie in repose one hour prior to funeral time. Interment follows in Friendship Cemetery, Ward. Visitation is scheduled for Friday evening, October 17, 2014 from 3-6 p.m. in the Weatherly Chapel.

To the Giles Family, we at Weatherly Funeral Home offer

Deborah Lynn "Debbie" Tate

Deborah Lynn "Debbie" Tate, 56, a brave and beautiful friend to many, lost her valiant fight with kidney cancer and on Oct. 5, 2014, left her body behind and her spirit soared to God's Kingdom.

Debbie was born June 4, 1958, to Pat and Ralph L. Tate of Aliceville. She was a member of the Pickens Academy Class

She moved to the Virginia Beach area in 2002 and enjoyed boating and fishing the waters of the Chesapeake Bay, gardening, cooking and singing with the Virginia Coast Chorus, an award-winning chapter of Sweet Adelines International.

In addition to a beautiful tenor and a love for singing, Debbie had a deep and abiding faith. Her philosophy was: "Every day is a blessing, and I believe that God takes care of me every single day of my life."

She was preceded in death by

2014, at Bethel Pine Baptist Church with Rev. John Wright officiating. Burial will follow in Bucks Chapel Cemetery with Larkin and Scott Funeral Directors of Demopolis directing. Visitation was Friday, October 10, 2014 from 1 to 5 p.m. at the funeral home. The body lie in state one hour prior to services at the church.

We want your critter, hunting and fishing photos! We're looking to post them on our new Outdoors, Hunting and Fishing webpage on

www.recordjournal.net

Email us your photo and a short who, what, when and where to scrjmedia@yahoo.com.

We know Outdoors men and women don't like to give away their secret hunting and fishing spots, so you can tell us generic places like town/area or just Sumter County if you would like.

HAZARD MITIGATION PLAN UPDATE MEETING

The Sumter County EMA and Alabama Tombigbee Regional Commission are in the process of updating Sumter County's Hazard Mitigation Plan. This plan is a multi-jurisdictional effort to evaluate and mitigate all natural hazards that may affect Sumter County and its residents. A meeting will be held on October 27, 2014 at 10 A.M. in the County Commission chambers regarding this update. If you require special accommodations and plan on attending, contact the Sumter County Commission at least 24 hours prior to the meeting.

Since 1994, the SIDS rate has dropped by more than 50 percent across all populations. However, the rate has plateaued in recent years. In 2013, 101 infants died from sleep-related causes in Alabama with an additional 6 deaths possibly being sleep related due to suffocation or strangulation.

The State Perinatal Program is working to educate parents, Perinatal Program Director Amy R. Stratton said. "Remember, a baby is safest alone on his or her back in a crib for sleeping."

For more information about infant safe sleep, go to: /www.adph.org/perinatal/Default.asp?id=5909; /www.cdc.gov/sids; and www.aap.org/en-us/about-the-aap/aap-press-room/pages/AAP-Expands-Guidelines-for-Infant-Sleep-Safety-and-SIDS-Risk-Reduction.aspx.

The 43rd Kentuck Festival of the Arts

NORTHPORT, Ala.- The Smithsonian. Traditional and

Alabama weekly gas price update

HAZARD MITIGATION PLAN UPDATE MEETING

The Sumter County EMA and Alabama Tombigbee Regional Commission are in the process of updating Sumter County's Hazard Mitigation Plan. This plan is a multi-jurisdictional effort to evaluate and mitigate all natural hazards that may affect Sumter County and its residents. A meeting will be held on October 27, 2014 at 10 AM in the County Commission chambers regarding this update. If you require special accommodations and plan on attending, contact the Sumter County Commission at least 24 hours prior to the meeting.

Mitigaton Plan Update Mailing List

Prefix	First Name	Last Name	Suffix	Title	Address	City	State	Zip
Mr.	Carl	Storey		Mayor, Town of Cuba	P.O. Box 385	Cuba	Alabama	36907
Mr.	Roy	Willingham	Sr.	Mayor, Town of Emelle	P.O. Box 97	Emelle	Alabama	35459
Mr.	Walter	Porter	Sr.	Mayor, Town of Epes	P.O. Box 127	Epes	Alabama	35460
Ms.	Carrie	Fulghum		Mayor, Town of Gainesville	P.O. Box 73	Gainesville	Alabama	35464
Mr.	Michael	Cunningham	Sr.	Mayor, Town of Geiger	201 Broadway Street	Geiger	Alabama	35459
Mr.	Thomas	Tartt	III	Mayor, City of Livingston	P.O. Drawer W	Livingston	Alabama	35470
Mrs.	Gena	Robbins		Mayor, City of York	P.O. Box 37	York	Alabama	36925
Ms.	Lucinda	Cockrell		County Administrator, Sumter County Commission	P.O. Box 70	Livingston	Alabama	35470
Mr.	John	Blackwell		President, University of West Alabama	UWA Station 1	Livingston	Alabama	35470
Mr.	Dexter	Arrington		Manager, Sumter County Water Authority	P.O. Box 994	Livingston	Alabama	35470
Ms.	Katie	Jones-Powell		Superintendent, Sumter County Board of Education	P.O. Box 10	Livingston	Alabama	35470
Ms.	Lena	Hardaway		Director, Sumter County Opportunity, Inc.	714 Country Club Road	Livingston	Alabama	35470
				County Administrator, Lauderdale County Commission	410 Constitution Avenue, 11th Floor	Meridan	Mississippi	39301
				County Administrator, Kemper County Commission	14062 Highway 16 W	DeKalb	Mississippi	39328
				County Administrator, Choctaw County Commission	117 South Mulberry	Butler	Alabama	36904
				County Administrator, Greene County Commission	P.O. Box 656	Eutaw	Alabama	35462
				County Administrator, Marengo County Commission	P.O. Box 480715	Linden	Alabama	36748
				County Administrator, Pickens County Commission	P.O. Box 460	Carrollton	Alabama	35447
Mr.	Rusty	Smith		Forestry Specialist, Alabama Forestry Commission	320 MLK Parkway	Livingston	Alabama	35470
				Supervisor, Chemical Waste Management	36964 Alabama Highway 17	Emelle	Alabama	35459
				Director, Sumter County DHR	PO Box 310	Livingston	Alabama	35470
				Director, Community Service Programs of West Alabama	601 Black Bears Way	Tuscaloosa	Alabama	35401
				Director, West Alabama Chapter of the American Red Cross	1622 Lurleen Wallace Blvd.	Tuscaloosa	Alabama	35476
				Director, Alabama Department of Environmental Management	P.O. Box 301463	Montgomery	Alabama	36130-1463
				Public Affairs Offcier, Alabama National Guard	P.O. Box 3711	Montgomery	Alabama	36109
				District Conservationist, Natural Resources Conservation Service	106 Marshall Street	Livingston	Alabama	35470
				Execcutive Director, Alabama Natural Resource Conservation Council	PO Box 355	Thomasville	Alabama	36784
				Director, Department of the Army-Corps of Engineers	P.O. Box 2288	Mobile	Alabama	36628
				National Weather Service	465 Weathervane Road	Calera	Alabama	35040

October 6, 2014

«AddressBlock»

«GreetingLine»

In accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-228, as amended), Title 44 CFR, as amended by Section 102 of the Disaster Mitigation Act of 2000, the Emergency Management Agency of Sumter County and the Alabama Tombigbee Regional Commission are updating the Natural Hazards Mitigation Plan for Sumter County. This plan is a multi-jurisdictional effort to evaluate and mitigate all natural hazards that may affect Sumter County and its residents. This mitigation plan must be updated and approved by the Federal Emergency Management Agency (FEMA) by July 28, 2015 in order for the county to be eligible for non-disaster relief funding.

The mitigation planning process has begun and a requirement of this process is that everyone in the county be represented. **Participation by every jurisdiction and all unincorporated areas is required.**

A plan update meeting will be held on **October 27, 2014 at 10 A.M.** in the commission chambers at the Sumter County Commission. I am enclosing the information your organization provided in the current plan. Please look over this information and update it as needed. Please bring this information with you to the October 27th meeting, it is important to have the most up to date information in this plan. If you are unable to attend, please return this information to Brandy Wilkerson before this meeting.

If you have any questions, please contact Margaret Bishop-Gulley at 205-652-6347 or Brandy Wilkerson at 334-682-4234.

Thank you,
ALABAMA-TOMBIGBEE REGIONAL COMMISSION

Brandy Wilkerson
Planning Director

Enclosure

SUMTER COUNTY HAZARD MITIGATION STEERING COMMITTEE MEETING
OCTOBER 27, 2014 - 10:30 AM COUNTY COMMISSION CHAMBERS

Name	Representing	Email
Dexter Arrington	Sumter Co. Water	[redacted]
LARRY BOSHELL	LWA	[redacted]
Margaret A. Bishop-Gulley	EMA/E911	[redacted]
BRIAN S. Harris	City of York	[redacted]
Anthony Crear	Sumter Co	[redacted]
Brandy Wilkerson	ATRC	[redacted]

ALABAMA TOMBIGBEE REGIONAL COMMISSION
JOHN CLYDE RIGGS
EXECUTIVE DIRECTOR
107 BROAD STREET
CAMDEN, ALABAMA 36726 • (334) 682-4234

January 29, 2015

Information reviewed by:

Carl Storey

1-28-15
Date

Mr. Carl Storey
Mayor, Town of Cuba
P.O. Box 385
Cuba, Alabama 36907

Dear Mayor Storey,

The Alabama Tombigbee Regional Commission is working with the Sumter County EMA to update the county's Natural Hazards Mitigation Plan. The Town of Cuba is an active participant in the Sumter County Mitigation Plan. This plan will expire in July of this year and in order to still be an active participant in the updated plan, your participation is required. Each local jurisdiction is required to participate in the local mitigation planning process in order to be an active participant in the county's mitigation plan. The county mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. County plans also serve as the basis for the State to provide technical assistance and to prioritize project funding. Local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants.

The town did not send a representative to the update meeting held on October 27, 2014 in Livingston. I am attaching the information you provided for the last plan update. Please review this information and provide any changes or modifications you feel are needed. Once a draft document is complete, I will send you information on where it can be reviewed. Once the plan is approvable, the town council will have to adopt the plan by resolution in order to be covered under the plan.

If you have any questions or need any additional information, please do not hesitate to call.

Thank you,
ALABAMA-TOMBIGBEE REGIONAL COMMISSION

Brandy P. Wilkerson

Brandy P. Wilkerson
Planning Director

Town of
Emelle

EMELLE
SUMTER COUNTY
ALABAMA

Mayor
Roy Willingham, Sr.

123 Dailey Avenue • P.O. Box 97 • Emelle, AL 35459 • (205) 652-4385 • (205) 652-4861 (fax)

October 30, 2014

Mrs. Brandy Wilkerson
Planning Director
Alabama Tombigbee Regional Commission
107 Broad Street
Camden, AL 36726

Dear Mrs. Wilkerson,

I apologize for not being able to attend the Plan Update Meeting On October 27, 2014. I have reviewed all the information and I have no changes or addition to the plan.

Thank you,

Roy Willingham, Sr.

Roy Willingham, Sr.
Mayor, Town of Emelle

RW/gm

ALABAMA TOMBIGBEE REGIONAL COMMISSION
JOHN CLYDE RIGGS
EXECUTIVE DIRECTOR
107 BROAD STREET
CAMDEN, ALABAMA 36726 • (334) 682-4234

January 29, 2015

Information reviewed by:
Walter Porter Sr
1-29-15
Date

Mr. Walter Porter Sr.
Mayor, Town of Epes
P.O. Box 127
Epes, Alabama 35460

Dear Mayor Porter,

The Alabama Tombigbee Regional Commission is working with the Sumter County EMA to update the county's Natural Hazards Mitigation Plan. The Town of Epes is an active participant in the Sumter County Mitigation Plan. This plan will expire in July of this year and in order to still be an active participant in the updated plan, your participation is required. Each local jurisdiction is required to participate in the local mitigation planning process in order to be an active participant in the county's mitigation plan. The county mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. County plans also serve as the basis for the State to provide technical assistance and to prioritize project funding. Local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants.

The town did not send a representative to the update meeting held on October 27, 2014 in Livingston. I am attaching the information you provided for the last plan update. Please review this information and provide any changes or modifications you feel are needed. Once a draft document is complete, I will send you information on where it can be reviewed. Once the plan is approvable, the town council will have to adopt the plan by resolution in order to be covered under the plan.

If you have any questions or need any additional information, please do not hesitate to call.

Thank you,
ALABAMA-TOMBIGBEE REGIONAL COMMISSION

Brandy P. Wilkerson

Brandy P. Wilkerson
Planning Director

ALABAMA TOMBIGBEE REGIONAL COMMISSION
JOHN CLYDE RIGGS
EXECUTIVE DIRECTOR
107 BROAD STREET
CAMDEN, ALABAMA 36726 • (334) 682-4234

January 29, 2015

Ms. Carrie Fulghum
Mayor, Town of Gainesville
P.O. Box 73
Gainesville, Alabama 35464

Information reviewed by:
Carrie L. Fulghum
1-29-15
Date

Dear Mayor Fulghum,

The Alabama Tombigbee Regional Commission is working with the Sumter County EMA to update the county's Natural Hazards Mitigation Plan. The Town of Gainesville is an active participant in the Sumter County Mitigation Plan. This plan will expire in July of this year and in order to still be an active participant in the updated plan, your participation is required. Each local jurisdiction is required to participate in the local mitigation planning process in order to be an active participant in the county's mitigation plan. The county mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. County plans also serve as the basis for the State to provide technical assistance and to prioritize project funding. Local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants.

The town did not send a representative to the update meeting held on October 27, 2014 in Livingston. I am attaching the information you provided for the last plan update. Please review this information and provide any changes or modifications you feel are needed. Once a draft document is complete, I will send you information on where it can be reviewed. Once the plan is approvable, the town council will have to adopt the plan by resolution in order to be covered under the plan.

If you have any questions or need any additional information, please do not hesitate to call.

Thank you,
ALABAMA-TOMBIGBEE REGIONAL COMMISSION

Brandy P. Wilkerson

Brandy P. Wilkerson
Planning Director

ALABAMA TOMBIGBEE REGIONAL COMMISSION
JOHN CLYDE RIGGS
EXECUTIVE DIRECTOR
107 BROAD STREET
CAMDEN, ALABAMA 36726 • (334) 682-4234

January 29, 2015

Information reviewed by:

Michael Cunningham

1/30/15

Date

Mr. Michael Cunningham Sr.
Mayor, Town of Geiger
201 Broadway Street
Geiger, Alabama 35459

Dear Mayor Cunningham,

The Alabama Tombigbee Regional Commission is working with the Sumter County EMA to update the county's Natural Hazards Mitigation Plan. The Town of Geiger is an active participant in the Sumter County Mitigation Plan. This plan will expire in July of this year and in order to still be an active participant in the updated plan, your participation is required. Each local jurisdiction is required to participate in the local mitigation planning process in order to be an active participant in the county's mitigation plan. The county mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. County plans also serve as the basis for the State to provide technical assistance and to prioritize project funding. Local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants.

The town did not send a representative to the update meeting held on October 27, 2014 in Livingston. I am attaching the information you provided for the last plan update. Please review this information and provide any changes or modifications you feel are needed. Once a draft document is complete, I will send you information on where it can be reviewed. Once the plan is approvable, the town council will have to adopt the plan by resolution in order to be covered under the plan.

If you have any questions or need any additional information, please do not hesitate to call.

Thank you,
ALABAMA-TOMBIGBEE REGIONAL COMMISSION

Brandy P. Wilkerson

Brandy P. Wilkerson
Planning Director

Wilkerson, Brandy

From: Terry Peeler <[redacted]>
Sent: Wednesday, December 10, 2014 10:13 AM
To: Wilkerson, Brandy; Thomas Tartt
Subject: Re: Livingston Hazard Mitigation
Attachments: Livingston Hazard Mitigation2.docx

Mrs. Wilkerson,
I have attached an updated copy of 2014 Livingston Mitigation Plan.

On Wed, Dec 10, 2014 at 9:12 AM, Wilkerson, Brandy <[redacted]> wrote:

Thanks Chief!

Brandy Wilkerson

Planning Director

Alabama Tombigbee Regional Commission

107 Broad Street

Camden, AL 36726

Phone: [redacted]

Fax: [redacted]

ALABAMA TOMBIGBEE REGIONAL COMMISSION
JOHN CLYDE RIGGS
EXECUTIVE DIRECTOR
107 BROAD STREET
CAMDEN, ALABAMA 36726 • (334) 682-4234

January 29, 2015

Ms. Katie Jones-Powell
Superintendent, Sumter County Board of Education
P.O. Box 10
Livingston, Alabama 35470

Information reviewed by:
Katie Jones-Powell
1/29/15
Date

Dear Superintendent Powell,

The Alabama Tombigbee Regional Commission is working with the Sumter County EMA to update the county's Natural Hazards Mitigation Plan. The Sumter County BOE is an active participant in the Sumter County Mitigation Plan. This plan will expire in July of this year and in order to still be an active participant in the updated plan, your participation is required. Each local jurisdiction is required to participate in the local mitigation planning process in order to be an active participant in the county's mitigation plan. The county mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. County plans also serve as the basis for the State to provide technical assistance and to prioritize project funding. Local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants.

The BOE did not send a representative to the update meeting held on October 27, 2014 in Livingston. I am attaching the information you provided for the last plan update. Please review this information and provide any changes or modifications you feel are needed. Once a draft document is complete, I will send you information on where it can be reviewed. Once the plan is approvable, the town council will have to adopt the plan by resolution in order to be covered under the plan.

If you have any questions or need any additional information, please do not hesitate to call.

Thank you,
ALABAMA-TOMBIGBEE REGIONAL COMMISSION

Brandy P. Wilkerson

Brandy P. Wilkerson
Planning Director

ALABAMA TOMBIGBEE REGIONAL COMMISSION
JOHN CLYDE RIGGS
EXECUTIVE DIRECTOR
107 BROAD STREET
CAMDEN, ALABAMA 36726 • (334) 682-4234

January 29, 2015

Ms. Lena Hardaway
Director, Sumter County Opportunity, Inc.
714 Country Club Road
Livingston, Alabama 35470

Information reviewed by:
Sarah A. Moore
1-29-2015
Date

Dear Ms. Hardaway,

The Alabama Tombigbee Regional Commission is working with the Sumter County EMA to update the county's Natural Hazards Mitigation Plan. The Sumter County EMA would like Sumter County Opportunity, Inc. to participate in the planning process. The county mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. County plans also serve as the basis for the State to provide technical assistance and to prioritize project funding. Local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants.

Sumter County Opportunity, Inc. did not send a representative to the update meeting held on October 27, 2014 in Livingston. I am attaching the information we need in order for Sumter County Opportunity, Inc. to be a participant. Once a draft document is complete, I will send you information on where it can be reviewed. Once the plan is approvable, your board will have to adopt the plan by resolution in order to be covered under the plan.

If you have any questions or need any additional information, please do not hesitate to call.

Thank you,
ALABAMA-TOMBIGBEE REGIONAL COMMISSION
Brandy P. Wilkerson
Brandy P. Wilkerson
Planning Director

Wilkerson, Brandy

From: Todd, James [redacted]
Sent: Wednesday, April 15, 2015 12:55 PM
To: Wilkerson, Brandy
Cc: Todd, James; [redacted]
Subject: Re: Hazard Mitigation Plan for Sumter Sewer Authority
Attachments: Sumter County Sewer Authority MitigationUPD1.pdf

Ms. Wilkerson, thank you for your prompt attention to our request for assistance.

I have completed the questionnaire you attached and reattached it to this email.

James H Todd

SCSA Secretary/Treasurer

[redacted]

From: Wilkerson, Brandy [redacted]
Sent: Wednesday, April 15, 2015 8:45 AM
To: Todd, James
Cc: [redacted] Margaret A. Bishop-Gulley, Director
Subject: Hazard Mitigation Plan for Sumter Sewer Authority

Mr. Todd,
I am attaching a document that the Sewer Authority can fill out to be included in the mitigation plan. Once the plan is approved by FEMA, the Authority will also have to adopt the plan. If you have any questions please give me a call.

Thanks,
Brandy

Brandy Wilkerson
Planning Director
Alabama Tombigbee Regional Commission
[redacted]

APPENDIX 2

Manmade/Technologic Hazards Information

Table 20: Technological Hazards Vulnerability Assessment	Cuba	Epes	Gainesville	Geiger	Livingston	York	County Un-incorporated
Biological, Accident	1	1	1	1	1	1	9
Building/Structure Collapse	1	1	1	1	1	1	1
Dam/Levee Failure	1	1	1	1	1	1	1
Fire, Explosion	2	2	2	2	2	2	2
Hazard Material Transportation	8	8	8	8	2	2	8
Radiological-Transportation	1	1	1	1	1	1	1
Transportation, Aircraft	5	1	1	1	1	1	5
Transportation, Motor Vehicle	8	8	8	8	1	1	8
Transportation, Railroad	7	8	7	1	3	8	7

(Remainder of Page Intentionally Blank)

Technological Threats and Hazards

Biological, Accident – Biological accidents have to do with spills/releasing of biological agents. These include: bacterium, viruses, prions, fungi, and biological toxins. No biological laboratories exist within Sumter County. However, Sumter County does have major throughways for transportation of biological agents, thus susceptibility to these agents exist only in the form of possible terrorist attacks (*see human caused threats and hazards below*).

Building/Structure Collapse - Primary concern in this area would be older buildings that have been neglected and received little to no maintenance. There is not a large selection of these types of building with any of the local municipalities. There are no recorded events of this nature except during building fires which the local fire departments train for.

Dam/Levee Failure – Dam failure may be a factor in the inundation of certain small, fairly well contained areas of the county, but is not considered a high risk to significant numbers of the population or structures in the county.

Fire, Explosion – Propane, natural gas, or hazard chemicals are the main concerns for explosions during fires. Sumter County maintains a list of extremely hazardous chemicals with-in the County and this is distributed to local fire departments.

Hazard Material Accident: Transportation- . The State Police are the primary agency for conducting hazmat roadside inspections. Sumter County has a major interstate, Federal and State highway routes through the county. The county is served by a major rail line which will be discussed in its section below.

Radiological- Transportation – Of the major transportation routes that are located with-in Sumter County. The proximity to Waste Management in Emelle, AL on Hwy 14 raises the concern that such material may be transported through the area.

Transportation, Aircraft – An air crash of small general aviation aircraft, large commercial or military aircraft is possible due to our proximity to major fight routes from inter-nation airports (Atlanta, GA and Birmingham, AL) and military traffic from Columbus and Meridian, MS. The concern is a crash into a residential area.

Transportation, Motor Vehicle – No Federal Interstate Highway system roads come through Sumter County. All roads are county or State highways. Due to the large number of two lane highways accidents in rural areas are often more fatal than in the few urban environments. Local police and Sheriffs offices are equipped to handle motor vehicle issues with-in the county.

Transportation, Railroad – A major rail line carries various hazardous materials. Carrier hazmat crews and AMAS HazMat Team from Tuscaloosa would respond.

Table 21: Sumter County Human Caused Hazard Probability of Future Occurrence			
Human Caused Threats	**Number of Occurrences Between 2003-2013**	**Probability of Future Occurrence**	**Area Affected**
Biological, Accident	0	>1%	Very Localized
Building, Structural collapse	0	>1%	Very Localized
Dam/Levee Failure	0	Unknown	Down stream
Tornado	15	>100%	Countywide
Flood/Flash Flood	17	>100%	Countywide
Droughts/Extreme Heat	16	>100%	Countywide
Winter Storm/Frost Freeze/Heavy Snow/ Ice Storm/Winter Weather/Extreme Cold	7	70%	Countywide
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	8	80%	Countywide
Sinkhole/Expansive Soil	0	0	N/A
Landslide	0	0	N/A
Earthquake	0	0	N/A
Sources: NOAA NCDC Storm Events Database; Alabama Forestry Commission; Alabama Geological Survey			
Methodology: Probability of Future Occurrences was expressed by dividing the total number of occurrences by the ten-year study period, with the exception of wildfire being a 15-year study period. Zero denotes no data available to determine the probability of future occurrence or areas affected.			

Table 22: Human Caused Threats	Cuba	Epes	Gainesville	Geiger	Livingston	York	County Un-incorporated
Attack, Biological	1	1	1	2	1	1	2
Attack, Chemical	2	1	1	1	2	1	2
Dam/Levee Failure	1	1	2	1	1	2	2
Attack, Conventional	1	1	1	1	1	1	1
Attack, Nuclear	1	1	1	1	1	1	1
Cyber Incident	3	3	2	3	1	1	3
Hostage situation	5	5	1	5	1	1	5
Riot/Demonstration/Violent Protest/Illegal Assembly	2	2	2	2	2	2	2
Sabotage	4	3	1	4	1	1	3
School Violence	6	2	0	5	0	0	5
Terrorist acts	1	2	1	2	1	1	2

Human Caused Threats and Hazards

Attack, Biological - Such an attack could be launched by foreign terrorists, lone wolves who are terrorists, or even by criminal elements. Our panel set this probability as low.

Attack, Chemical - These substances are more easily procured than biological agents but again being in a rural environment the potential use of these in this area does not seem to warrant excessive expense of over planning for such an event

Attack, Conventional - This is a more likely event than chemical, biological or nuclear attack but still low. The primary scenario for this area would be a lone gunman not necessarily a organized group. Motivation for any conventional attack would more than likely be different from a terrorist scenario and it is expected this would be driven by revenge and or insanity on the part of the attacker. These are rare events but are response to active shooter type scenarios is still practiced by local law enforcement.

Attack, Nuclear - This seems to be the most remote threat of attack. A terrorist, group or individual bent on detonating a nuclear weapon would have to successfully negotiate a series of steps, including finding an expert with the right knowledge, finding the right material, bringing the device into the country, and evading detection programs. Also like other events the attacker would want the most psychological harm they could muster which more than likely would be in a more populated area.

Cyber Incident – It is not expected that we will be the target of some foreign government or terrorist organization to gain information or cause disruption (cyber warfare). However we are susceptible to viruses, malware, worms, spyware spam, and phishing efforts. To negate this security software is installed on all computers and networks. Efforts are also made to train users on phishing techniques and password protection.

Hostage situation – These usually develop when one or more terrorist or criminals hold people against their will and try to hold off the authorities by force, threatening to kill the hostages if provoked or attacked. In a planned hostage crisis, there is often a list of political or religious demands, often including the release of imprisoned friends or allies. In cases where the hostage situation was improvised as a desperate attempt to avoid capture, the demands usually revolve around exchanging the lives of the hostages for transport to safety. However, these situations can also be motivated by domestic disputes. Domestic disputes and improvised situations to avoid capture are the most likely in Sumter County.

Riot/Demonstration/Violent Protest/Illegal Assembly - No incidence of this nature have occurred in Sumter County in the recent past. However, during the civil rights issues in the 1960's, there was concern for the possibility of threats of riots and threats of bombing of schools. Today, our panel set this probability as low.

Sabotage – This can be in the form of obstruction, disruption or destruction. Though there is potential for this type of action against electric grids, phone systems, communications systems and the like there doesn't seem to be much evidence of this happening in the United States at this time.

School Violence - Always a concern, school violence is a subset of youth violence. School violence refers includes a variety of behaviors such as bullying, slapping, punching, and weapon use. Victims can suffer serious injury, significant social and emotional damage, or even death. School Safety Officers from the local police force have been assigned to some schools in the local community to monitor and control school violence. The primary incidences when reported have been non-fatal victimization. Through the use of improved classroom management practices, promoting cooperative learning techniques, teacher/staffing practices, student monitoring and supervision, involvement of parents/caregivers has reduced incidents to near zero. A fatality was recorded at one school as a result of a domestic violence shooting, which did not involve students.

Terrorist acts - The systematic use of violent attacks (act of terror), especially as a means of coercion as practiced by a broad array of political organizations for furthering their objectives. It has been practiced by right-wing and left-wing political parties, nationalistic groups, religious groups, revolutionaries, and ruling governments. An abiding characteristic is the indiscriminate use of violence against noncombatants for the purpose of gaining publicity for a group, cause, or individual. Though there is always potential for these acts increased intelligence and surveillance activities within the state, along with our location in a rural environment significantly reduces the potential for such an event.

APPENDIX 3

National Inventory of Dams (NID)
Sumter County Information

RECORD #	DAM NAME	OTHER DAM NAME	NIDID	LONGITUDE	LATITUDE	RIVER	CITY	OWNER TYPE	PRIVATE DAM	DAM TYPE	FOUNDATION	YEAR COMPLETED	DAM LENGTH	DAM HEIGHT	DRAINAGE AREA	HAZARD
1	WARREN GANDY	WARREN GANDY	AL02441	-87.57	32.3	TR-BOTTOM CK.	BELMONT	P	N	RE		1992	515	18.5	0.114	L
2	ROGERS DAM	ROGERS POND	AL02263	-88.15	32.55	NOXABEE RIVER	GAINESVILLE	P	N	RE		1983	650	18	0.125	L
3	JASHE 00		AL02576	-88.2958	32.4556	BUCK CREEK	YORK	P	N	RE	SK	2000	200	26	0.044	L
4	SUMTER FARM AND STOCK COMPANY	LIARS LAKE DAM	AL00202	-88.295	32.85667	TR-CANEY CREEK	SPRING VALLEY CHURCH	P	N	RE		1941	500			L
5	ENNIS TARTT		AL00211	-88.17833	32.615	TR-WHITEROCK CREEK	LIVINGSTON	P	N	RE		1970	500			S
6	FACTORY CREEK W/S DAM SITE 7	BULK DIAL S POND	AL02257	-88.25	32.74	FACTORY CREEK	EPES	P	N	RE	RK	1984	1569	31	2.12	S
7	WALBURN #1	WALBURN #1	AL02429	-88.1025	32.40528	TR-TOMBIGBEE RIVER	EPES	P	N	RE		1990	900	20	0.086	L
8	HILL RANCH		AL00195	-88.17	32.78667	TR-TOMS CREEK	MILLER HILL CHURCH	P	N	RE		1946	600			L
9	NELSON #6	NELSON POND	AL02260	-88.1	32.41306	FACTORY CREEK	EPES	P	N	RE		1981	800	17	0.145	L
10	SUMTER FARM & STOCK CO	SUMTER LAKE (BARN)	AL00198	-88.24667	32.85833	NOXUBEE RIVER	SPRING VALLEY CHURCH	P	N	RE		1957	700	18	0.172	L
11	NELSON #1	TURKEY POND	AL02259	-88.1	32.41306	FACTORY CREEK	EPES	P	N	RE		1981	565	19	0.212	L
12	T C NULL	NULL LAKE	AL01480	-88.035	32.355	COTAHAGA CREEK	OAKCHIA	P	N	RE		1972	600	18	0.025	L
13	CALVIN BOYD #13	CALVIN BOYD #13	AL02286	0	0	TR-SHUMULA CK.	LIVINGSTON	P	N	RE		1986	550	22.1	0.281	L
14	WILL HAAS	WILL HAAS	AL02285	-87.03333	32.59195	TR-TOMBIGBEE RIVER	DEMOPOLIS	P	N	RE		1986	600	22.2	0.056	L
15	JIM HENDERSON DAM		AL01485	-88.23167	32.975	FENACHE CREEK OFFSTREAM	WARSAW	P	N	RE		1972	550			L
16	PRUITT & LACOSTE #1	PRUITT & LACOSTE #1	AL02287	-88.21667	32.6	TR-SUCARNOOCHEE RV.	LIVINGSTON	P	N	RE		1986	615	22.4	0.125	L

RECORD #	DAM NAME	OTHER DAM NAME	NIDID	LONGITUDE	LATITUDE	RIVER	CITY	OWNER TYPE	PRIVATE DAM	DAM TYPE	FOUNDATION	YEAR COMPLETED	DAM LENGTH	DAM HEIGHT	DRAINAGE AREA	HAZARD
17	PRUITT DAM	PRUITT POND	AL02262	-88.09	32.37305	SUCARNOOCHEE RIVER	LIVINGSTON	P	N	RE		1983	775	19	0.516	L
18	SUMTER FARMS & STOCK CO	SUMTER LAKE (NEW BIG LAKE)	AL00200	-88.26	32.85667	CANEY CREEK	SPRING VALLEY CHURCH	P	N	RE		1973	1000	28	0.738	L
19	LARRY POWELL		AL02505	-88.16861	32.70556	TR JONES CREEK	EPES	P	N	RE		1995	1058	21	0.081	S
20	BUCHANAN	LUTHER COGGINS DAM	AL00206	-88.19	32.76333	TR-FACTORY CREEK	MILLER HILL CHURCH	P	N	RE		1958	500			L
21	J. MCCLURE #2	J. MCCLURE #2	AL02433	-88.15389	32.56278	TR-ROGERS CK.	PANOLA	P	N	RE		1990	1427	10.7	0.044	L
22	C E BOYD DAM		AL01479	-88.255	32.65333	TR-MIUKA CREEK	CAIN	P	N	RE		1965	500			L
23	KENNY LARKIN #1	KENNY LARKIN #1	AL02432	-88.19111	32.49083	TR-BODKA CK.	GEIGER	P	N	RE		1990	1375	14.8	0.131	L
24	ALLISON DERBY		AL00213	-88.15333	32.36667	TR-COTOHAGA CREEK	WHITFIELD	P	N	RE		1961	600			L
25	SMITH FARM #5	SMITH FARM #5	AL02320	-88.28889	32.79111	TR-FACTORY CK.	EPES	P	N	RE		1987	820	13	0.156	L
26	KATHERINE ALLISON DAM		AL01482	-88.11667	32.54667	TR-PONKABIA CREEK	BREWERSVILLE	P	N	RE		1965	500			S
27	CHRIS HAWLEY	CHRIS HAWLEY	AL02442	-88.13	32.39	TR-SHUMULLA CK.	LIVINGSTON	P	N	RE		1992	371	21	0.036	L
28	HINLEY DAM	HINLEY POND	AL02258	-88.2	32.56	NOXEBEE RIVER	GAINESVILLE	P	N	RE		1983	1500	30	1.563	S
29	STROTHER DEARMAN		AL02504	-88.24806	32.42111	WILEY BRANCH	GASTON	P	N	RE		1995	354	24	0.225	S
30	SUMTER FARM & STOCK CO	SUMTER LAKE (BARN)	AL00199	-88.23833	32.855	NOXUBEE CREEK	GIEGER LODGE	P	N	RE		1957	700	25	0.161	L
31	JIM KING	JIM KING	AL02443	-88.08	32.38	TR-WIGGINS CK.	COATOPA	P	N	RE		1992	360	19.1	0.336	L
32	AMERICAN CAN COMPANY DAM		AL01481	-88.08	32.355	TR-COTOHAGA CREEK	OAKCHIA	P	N	RE		1960	850			L

RECORD #	DAM NAME	OTHER DAM NAME	NIDID	LONGITUDE	LATITUDE	RIVER	CITY	OWNER TYPE	PRIVATE DAM	DAM TYPE	FOUNDATION	YEAR COMPLETED	DAM LENGTH	DAM HEIGHT	DRAINAGE AREA	HAZARD
33	CAROLYN	LAKE CAROLYN DAM	AL00192	-88.33167	32.43667	TR-ALAMUCHEE CREEK	SOUTH SUBURB YORK	P	N	RE		1956	500			S
34	KUYKENDALL #2	KUYKENDALL #2	AL02436	-88.18222	32.495	TR-BODKA CK.	GEIGER	P	N	RE		1990	2300	11.4	0.183	L
35	SUMTER FARMS & STOCK CO	SUMTER LAKE (SIBLEY)	AL00197	-88.27167	32.87333	KNIGHT BRANCH	SPRING VALLEY	P	N	RE		1973	600	20		L
36	DAISY FALLS	DAISY FALLS	AL02444	-88.1	32.45	TR-FACTORY CK.	EPES	P	N	RE		1992	490	18.2	0.136	L
37	SUMTER FARM AND STOCK COMPANY	WILLIAMS LAKE DAM	AL00196	-88.32833	32.86167	HATCHET CREEK-OFFSTREAM	HATCHET	P	N	RE		1946	650			L
38	FACTORY CREEK W/S DAM SITE 6		AL02458	-88.25	32.7694	FACTORY CREEK	EPES	P	N	RE	RK	1991	2728	32	10.2	S
39	LAKE L U DAM		AL01483	-88.2	32.75	TR-SUCARNOOCHEE RIVER	LIVINGSTON	S	N	RE	S	1977	1030	39	1.063	S
40	LAKE LOUISE DAM		AL01484	-88.33	32.47167	TR-TOOMSUBA CREEK	YORK	L	N	RE		1973	875			S
41	F N GRANT	RETREAT DAM	AL00209	-88.26167	32.41333	WILEY BRANCH OFFSTREAM	UNION CHAPEL	P	N	RE		1968	500			L
42	DAISY FALLS DAM		AL01486	-88.16833	32.75333	TR-FACTORY CREEK	MILLER HILL CHURCH	P	N	RE		1965	450			L
43	SMITH FARM #3		AL02265	-88.17	32.48	FACTORY CREEK	EPES	P	N	RE		1983	875	14	0.281	L
44	DIAL DAM	R J DIAL POND	AL02256	-88.3	32.73	SUCARNOOCHEE	SUMTERVILLE	P	N	RE		1981	725	17	0.172	L
45	MCGREGOR		AL00208	-88.07833	32.46833	MILL CREEK	MT PLEASANT CHURCH	P	N	RE		1970	600	30	0.086	L
46	C E BOYD		AL00212	-88.3	32.80833	TR-BODKA CREEK	SPRING VALLEY CHURCH	P	N	RE		1971	500			S
47	ROBERT WEIR	LUCILE TAYLOR DAM	AL00204	-88.23833	32.97833	FENACHE CREEK-OFFSTREAM	WARSAW	P	N	RE		1969	800			L

RECORD #	DAM_NAME	OTHER_DAM_NAME	NIDID	LONGITUDE	LATITUDE	RIVER	CITY	OWNER TYPE	PRIVATE DAM	DAM TYPE	FOUNDATION	YEAR COMPLETED	DAM LENGTH	DAM HEIGHT	DRAINAGE AREA	HAZARD
48	F N GRANT		AL00210	-88.28667	32.40167	TR-KINTERBISH-OFFSTREAM	WARD	P	N	RE		1968	600			L
49	KUYKENDALL #1	KUYKENDALL #1	AL02435	-88.18195	32.495	TR-BODKA CK.	GEIGER	P	N	RE		1990	2726	11.4	0.158	L
50	STEVEM3	STEVEM3	AL02534	-88.07222	32.40417	TALLYHALY CREEK - OFFSTREAM	NANAFALIA	P	N	RE		1997	640	26	0.266	L
51	STUTTS FLOOD CONTROL #1-2	STUTTS FLOOD CONTROL #1-2	AL02431	-88.14027	32.43111	TR-FACTORY CK.	EPES	P	N	RE		1990	825	20.6	0.461	L
52	HIBBARD #1	HIBBARD #1	AL02430	-88.14445	32.36306	TR-SUCARNOOCHEE RIVER	LIVINGSTON	P	N	RE		1990	336	21.1	0.117	L
53	HWEST	HWEST	AL02519	-88.35889	32.74833	TR-QUILBY CREEK	GAINESVILLE	P	N	RE		1996	430	22.7	0.183	L
54	SUMTER FARM AND STOCK COMPANY	POND NUMBER FOUR DAM	AL00201	-88.31	32.91167	TR-NOXUBEE RIVER	SUBURB NORTH GEIGER	P	N	RE		1943	650			S
55	NELSON #7	BIG POND	AL02261	-88.1	32.41306	FACTORY CREEK	EPES	P	N	RE		1981	620	20	0.267	L
56	BILLY DIAL #1	BILLY DIAL #1	AL02440	-88.16	32.33	TR-SUCARNOOCHEE RV.	LIVINGSTON	P	N	RE		1991	427	26	0.102	L
57	J. MCCLURE #1	J. MCCLURE #1	AL02434	-88.15389	32.56278	TR-ROGERS CK.	PANOLA	P	N	RE		1990	1875	11	0.031	L
58	SHELBY LAKE	SHELBY LAKE	AL02464	-88.25833	32.9	TR-MIUKA CREEK	LIVINGSTON	P	N	RE		1972	731	16	0.102	L
59	SMITH FARM #2		AL02264	-88.17	32.48	FACTORY CREEK	EPES	P	N	RE		1983	575	11	0.086	L

Help Files

Instructions on using NID Interactive Reporting
Instructions on using NID Interactive Map
NID Overview
NID Data Dictionary

NID Columns

Column Name	Definition	Field Name
DAM_NAME		Dam Name
OTHER_DAM_NAME		Other Dam Name
DAM_FORMER_NAME		Dam Former Name
NIDID		NID ID
LONGITUDE		Longitude
LATITUDE		Latitude
SECTION		Section, Township, Range Location
COUNTY		County
RIVER		River
OWNER_NAME		Owner Name
OWNER_TYPE		Owner Type
DAM_DESIGNER		Dam Designer
PRIVATE_DAM		Non-Federal Dam On Federal Property
DAM_TYPE		Dam Type
CORE		Core
FOUNDATION		Foundation
PURPOSES		Purposes
YEAR_COMPLETED		Year Completed
YEAR_MODIFIED		Year Modified
DAM_LENGTH		Dam Length
DAM_HEIGHT		Dam Height
STRUCTURAL_HEIGHT		Structural Height
HYDRAULIC_HEIGHT		Hydraulic Height
NID_HEIGHT		NID Height
MAX_DISCHARGE		Maximum Discharge
MAX_STORAGE		Maximum Storage
NORMAL_STORAGE		Normal Storage
NID_STORAGE		NID Storage
SURFACE_AREA		Surface Area
DRAINAGE_AREA		Drainage Area
EAP		Emergency Action Plan
INSPECTION_DATE		Inspection Date
INSPECTION_FREQUENCY		Inspection Frequency
STATE_REG_DAM		State Regulated Dam
STATE_REG_AGENCY		State Regulatory Agency
SPILLWAY_TYPE		Spillway Type
SPILLWAY_WIDTH		Spillway Width
OUTLET_GATES		Outlet Gates
VOLUME		Volume
NUMBER_OF_LOCKS		Number of Locks
LENGTH_OF_LOCKS		Length of Locks

Dam Type

Code	Value
RE	Earth
ER	Rockfill
PG	Gravity
CB	Buttress
VA	Arch
MV	Multi-Arch
CN	Concrete
MS	Masonry
ST	Stone
TC	Timber Crib
OT	Other
RC	RCC
	1 - 12

Owner Type

Code	Value
F	Federal
S	State
L	Local Government
U	Public Utility
P	Private
X	Not Listed
	1 - 6

Purposes

Code	Value
I	Irrigation
H	Hydroelectric
C	Flood Control
N	Navigation
S	Water Supply
R	Recreation
P	Fire Protection, Stock, Or Small Fish Pond
F	Fish and Wildlife Pond
D	Debris Control
T	Tailings
O	Other
G	Grade Stabilization
	1 - 12

Modification Type (from Year Modified)

Code	Value
S	structural
F	foundation
M	mechanical
E	seismic
H	hydraulic
O	other
	1 - 6

Condition Assessment

VALUE	CODE
SATISFACTORY	SATISFACTORY
FAIR	FAIR
POOR	POOR

Core Certainty

CODE	VALUE
K	Known
Z	Estimated
	1 - 2

EAP

CODE	VALUE
Y	Yes
N	No
NR	Not Required
	1 - 3

Foundation Type

CODE	VALUE
RS	Rock & Soil
R	Rock
S	Soil
U	Unknown
	1 - 4

Foundation Certainty

CODE	VALUE
K	Known
Z	Estimated
	1 - 2

Spillway Type

CODE	VALUE
C	Controlled
U	Uncontrolled
N	None
	1 - 3

WIDTH_OF_LOCKS		Width of Locks
FED_FUNDING		Federal Agency Involvement in Funding
FED_DESIGN		Federal Agency Involvement in Design
FED_CONSTRUCTION		Federal Agency Involvement in Construction
FED_REGULATORY		Federal Agency Involvement in Regulatory
FED_INSPECTION		Federal Agency Involvement in Inspection
FED_OPERATION		Federal Agency Involvement in Operation
FED_OWNER		Federal Agency Owner
FED_OTHER		Federal Agency Other
SOURCE_AGENCY		Source Agency
STATE		State
URL_ADDRESS		URL Address
CONG_NAME		Congressional Representative
PARTY		Congressional Representative Party
CONG_DIST		Congressional Representative District
OTHERSTRUCTUREID		Other Structure ID
NUMSEPARATESTRUCTURES		Number Separate Structures
PERMITTINGAUTHORITY		Permitting Authority
INSPECTIONAUTHORITY		Inspection Authority
ENFORCEMENTAUTHORITY		Enforcement Authority
JURISDICTIONALDAM		State Jurisdictional Dam
EAP_LAST_REV_DATE		Date of Last Revision of Emergency Action Plan

1 - 63

UNSATISFACTORY	UNSATISFACTORY
NOT RATED	NOT RATED

1 - 5

Core Type

CODE	VALUE
A	Bituminous Concrete
C	Concreate
E	Earth
M	Metal
P	Plastic
X	Unknown

1 - 6

Core Position

CODE	VALUE
F	Upstream Facing
H	Homogeneous
I	Core
X	Unknown

1 - 4

nobody en-us

APPENDIX 4

Lake LU Action Plan

Emergency Action Plan

Lake LU

University of West Alabama

Sumter County

Livingston, Alabama

Lake LU Reservoir Recreational Structure

National Inventory of Dams ID# AL01483

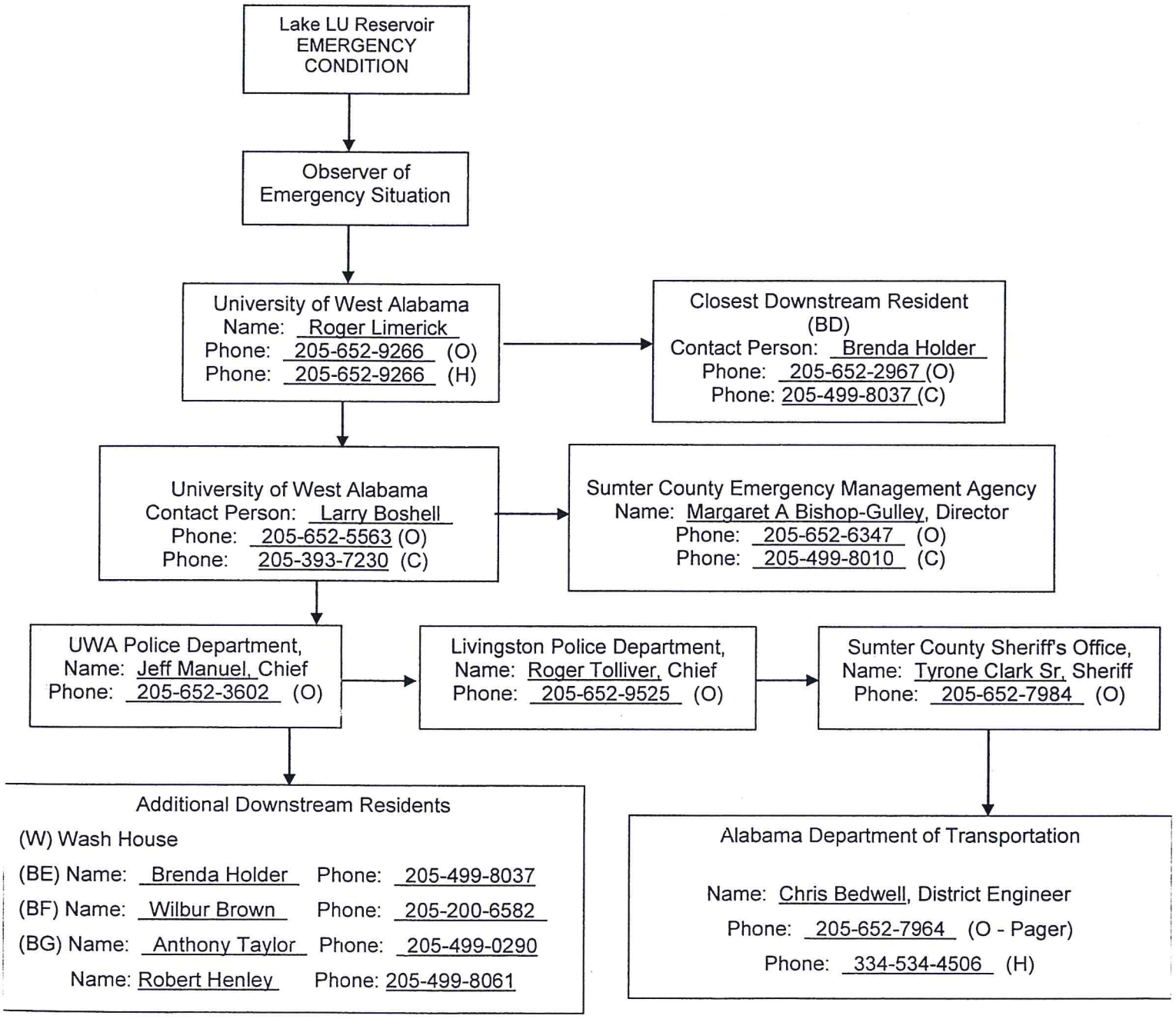
OWNER: University of West Alabama

ISSUE DATE: May 2013

TABLE OF CONTENTS

I. NOTIFICATION FLOWCHART

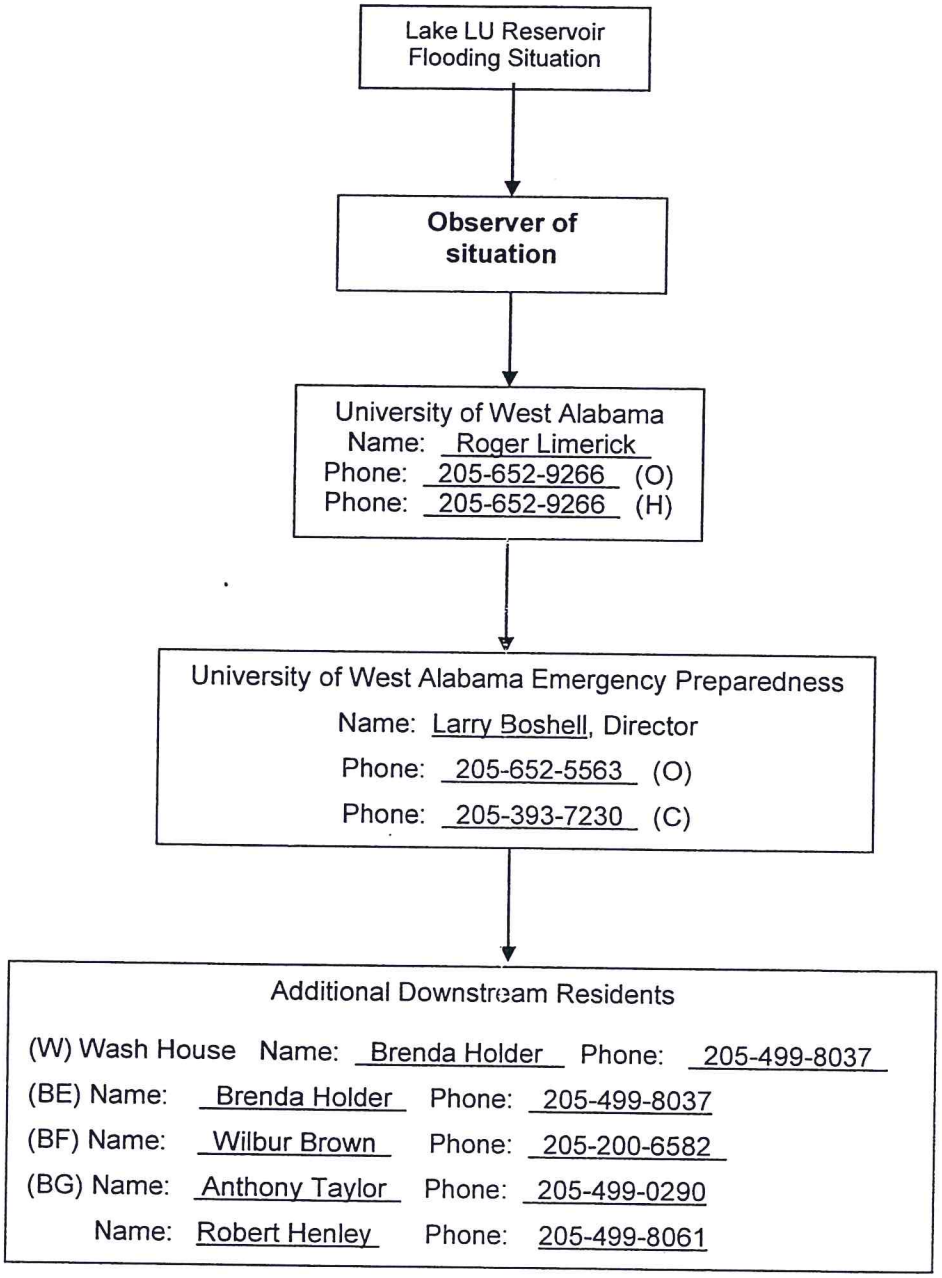
Potential Failure or Imminent Failure (See Page 6)



(C) Cell phone
(O) Office phone
(H) Home phone
See inundation map for location of residents
Larry Boshell, Director, University of West Alabama Emergency Preparedness, is responsible for ordering any evacuation.

NOTIFICATION FLOWCHART

NON-FAILURE CONCERN (See Page 6)



- Notify downstream residents of potential flooding.
- If necessary, implement preventative actions described on Pages 8-10 of this plan.

- **If situation deteriorates, be prepared to implement the Notification Flowchart for potential of imminent failures on Page 3.**

II. STATEMENT OF PURPOSE

The purpose of this plan is to prescribe procedures to be followed in the event of an emergency associated with Lake LU which is caused by an unusually large flood or earthquake, a structural malfunction of the principal spillway, malicious human activity such as sabotage, vandalism or terrorism, or failure of the dam.

This Emergency Action Plan (EAP) defines responsibilities and procedures to:

- Identify unusual and unlikely conditions that may endanger the dam.
- Initiate remedial actions to prevent or minimize the downstream impacts of a dam failure.
- Initiate emergency actions to warn downstream residents of impending or actual failure of the dam.

III. PROJECT DESCRIPTION

Official Dam Name: Lake LU Recreational Structure NID ID#: AL01483

Stream: Tributary of Sucarnoochee River

Location: Lat. - 32.6000 Long. - 88.1975, Sumter, AL

Dam Owner/Operator: University of West Alabama

Type of Dam: Compacted Earthfill

Year Constructed: 1977

Dam Height: 38.8 feet Dam Length: 830 feet

Drainage Area: 1.06 sq. mi. Hazard Classification: High Hazard*

Principal Spillway: 36" Diameter Concrete Pressure Pipe with Impact Basin (Concrete)

Principal Spillway Capacity: 184 cfs

Auxiliary Spillway Type and Max Capacity: 200 ft. wide vegetated channel, 4800 cfs

Maximum Storage Volume: 1170 acre-feet (Top of Dam)

Elevations (Mean Sea Level):

Principal Spillway Crest	146.0
Auxiliary Spillway Crest	150.2
Top of Dam	154.8
Outlet Basin (end sill)	113.2

Description of Impacted Property: **32** residents in four apartments within 500 feet of the dam and a transportation route on the dam.

- **Country Club Drive** - Street across dam embankment and across the auxiliary spillway exit.

* Structure built as a class "b" (moderate) hazard dam. The structure is currently a High Hazard site due to the potential for loss of life. Structure will need modification to meet the structural requirements of a High Hazard site.

IV. EMERGENCY DETECTION, EVALUATION, AND CLASSIFICATION

Daily surveillance at the site will be the normal method of detecting potential emergency situations. For conditions beyond the normal range of operations, contact the Natural Resources Conservation Service (NRCS - 205-759-4716) for assistance with evaluation of the conditions. Each event or situation will be placed in one of the following classifications:

- **Non-failure Concern** - This classification indicates a situation is developing; however, the dam is not in danger of failing, but flooding is expected downstream from the dam. Downstream residents to be notified through the University EMA if flooding increases and life and property is threatened. University EMA will notify Sumter County EMA of the threat and additional assistance.
- **Potential Failure** - This classification indicates that a situation is developing that could cause the dam to fail. Residents in affected areas shall be alerted through the University EMA that an unsafe situation is developing. A reasonable amount of time is available for analysis before deciding on evacuation of residents.
- **Imminent Failure** - This classification indicates dam failure is occurring that may result in flooding that will threaten life and property. When the land owner determines that there is no longer time available to implement corrective measures to prevent failure, they will contact the University EMA and/or residents. An order for evacuation of residents in potential inundation areas shall be issued by the University EMA.

Listed below are some of the events that can lead to the failure of the dam and a brief outline of steps to take to address the situation. See Section V. "Preparedness" for a summary of actions to be considered for various situations.

FLOODING:

The auxiliary spillway is designed to convey the expected runoff from one-half the probable maximum precipitation, (16.4 inches in 6 hours). During a major flood event, if the reservoir level rises and flow occurs in the auxiliary spillway (crest elevation 150.2), the following actions will be taken:

- Conduct periodic (at least twice daily) inspections of the dam to check for and record the following:
  - reservoir elevation;
  - rate the reservoir is rising;
  - weather conditions - past, present, predicted;
  - discharge conditions of creek downstream;
  - downstream toe and abutments for any new seepage or abnormal flow (muddy flow);
  - increased seepage rate from embankment drain pipes as reservoir level rises;
  - cracks, slumping, sloughing, sliding, or other distress signals near the dam abutment or on the dam.

If the reservoir elevation continues to rise, implement the **NOTIFICATION FLOWCHART FOR NON-FAILURE CONCERNS.**

If any of the last three conditions listed above occur, implement the **NOTIFICATION FLOWCHART FOR POTENTIAL OR IMMINIENT FAILURE.**

EROSION, SLUMPING/SLOUGHING, OR CRACKING OF THE DAM OR ABUTMENT:

Determine the location, size of the affected area(s) (height, width, and depth) severity, estimated seepage discharge, clear or cloudy seepage, and the reservoir and tailwater elevations. If the integrity of the dam appears to be threatened, immediately implement the **NOTIFICATION FLOWCHART FOR POTENTIAL OR IMMINENT FAILURE.**

NEW SPRINGS, SEEPS, BOGS, SANDBOILS, INCREASED LEAKAGE, OR SINKHOLES:

If there is a rapid increase in previously existing seep areas, an increase in drain pipes flow, or if new springs, seeps, or bogs appear, determine the location, size of the affected area, estimated discharge, nature of the discharge (clear or cloudy), and reservoir and tailwater elevations (a map of the area may be helpful to illustrate where the problem is located). If the integrity of the dam appears to be threatened, immediately implement the **NOTIFICATION FLOWCHART FOR POTENTIAL OR IMMINENT FAILURE.**

MALICIOUS HUMAN ACTIONS (SABOTAGE, VANDALISM, OR TERRORISM):

If malicious activity on or around the dam has been identified, immediately make an assessment of the existing conditions and determine the potential of the dam failing. If the integrity of the dam appears to be threatened, immediately implement the **NOTIFICATION FLOWCHART FOR POTENTIAL OR IMMINENT FAILURE.**

END OF EMERGENCY SITUATION AND FOLLOW-UP ACTIONS:

Once conditions indicate that there is no longer an emergency at the dam site. University of West Alabama EMA will contact the Sumter County Emergency Management Agency which will then terminate the emergency situation with Alabama EMA.

V. PREPAREDNESS

Preparedness actions are taken to prevent a dam failure incident or to help reduce the effects of a dam failure and facilitate response to emergencies. The following actions describe some of the steps that could be taken at the dam to prevent or delay failure after an emergency is first discovered. **These actions should only be performed under the direction of the NRCS, or other qualified professional engineers.**

ACTIONS TO BE TAKEN IN THE EVENT OF:

A Slide on the Upstream or Downstream Slope of the Embankment:

(a) Lower the water level in the reservoir at a rate, and to an elevation, that is considered safe given the slide condition. If the outlet is damaged or blocked, pumping, siphoning, or a controlled breach may be required.

(b) Stabilize slides on the downstream slope by weighting the toe area below the slide with additional soil, rock, or gravel.

Erosion Seepage or Leakage (Piping) through the Embankment, Foundation or Abutments:

(a) Plug the flow with whatever material is available (hay bales, bentonite, or plastic sheeting, if the entrance to the leak is in the reservoir).

(b) Lower the water level in the reservoir until the flow decreases to a non-erosive velocity or until it stops.

(c) Place an inverted filter (a protective sand and gravel filter) over the exit area to hold materials in place.

(d) Continue lowering the water level until a safe elevation is reached; continue operating at a reduced level until repairs are made.

A Failure of an Appurtenant Structure such as an Inlet/Outlet of Spillway:

(a) Implement temporary measures to protect the damaged structure, such as closing the inlet or providing temporary protection for a damaged spillway.

(b) Employ experienced, professional divers, if necessary, to assess the problem and possibly implement repair.

(c) Lower the water level in the reservoir to a safe elevation. If the inlet is inoperable, pumping, siphoning, or a controlled breach may be required.

A Mass Movement of the Dam on its Foundation (Spreading or Mass Sliding Failure):

(a) Immediately lower the water level until excessive movement stops.

(b) Continue lowering the water level until a safe level is reached; continue operation at a reduced level until repairs are made.

Auxiliary Spillway Erosion Threatening Reservoir Evacuation:

(a) Provide temporary protection at the point of erosion by placing sandbags, riprap materials, or plastic sheets weighted with sandbags.

(b) Consider pumps and siphons to help reduce the water level in the reservoir.

(c) When inflow subsides, lower the water level in the reservoir to a safe level; continue operating at a lower water level in order to minimize spillway flow.

Excessive Settlement of the Embankment:

a) Lower the water level by releasing it through the outlet or by pumping, or siphoning.

b) If necessary, restore freeboard, preferably by placing sandbags.

c) Lower water level in the reservoir to a safe level; continue operating at a reduced level until repairs can be made.

Malicious Human Activity (Sabotage, Vandalism, or Terrorism)

a) If the principal spillway has been damaged or plugged, implement temporary measures to protect the damaged structure. Employ experienced, professional divers, if necessary, to assess the problem and possibly implement repair.

b) If the embankment or auxiliary spillway has been damaged or partially removed, provide temporary protection in the damaged area by placing sandbags, riprap materials, or plastic sheets weighted with sandbags. Use pumps and siphons to help reduce the water level in the reservoir.

SUPPLIES AND RESOURCES

In an emergency situation, equipment, supplies, and other resources might be needed on short notice, such as sandbags, riprap, fill materials, and heavy equipment. The table below lists resources that may be helpful and indicates contacts to access them.

Item	Contact	Location
Earthmoving Equipment	Thad Goldman, Contractor/Rental	Livingston
Riprap	Anthony Crear, County Engineer	Livingston, County Commissioner
Sand and Gravel	Anthony Crear, County Engineer	Livingston, County Commissioner
Sandbags	Margaret Gulley, County EMA	Livingston, County Commissioner
Pumps	Thad Goldman, Contractor/Rental	Livingston
Pipe	Thad Goldman, Contractor/Rental	Livingston
Laborers	Anthony Crear, County Engineer	Livingston, County Commissioner
Lighting Equipment	Thad Goldman, Contractor/Rental	Livingston
Other	Bobby Truelove, Physical Plant	University of West Alabama

VII. FLOOD INUNDATION MAP

Four apartments could be affected by a major flood caused by a sudden breach of Lake LU Reservoir. These apartments are marked on the attached inundation map. Floodwaters would reach the apartments within one minute after the dam failure [See Flood Inundation Table (Page 12), Flood Inundation Map (Page 13), and Flood Inundation Profiles (Pages 14 thru 15).

VIII. PLAN MAINTENANCE

This plan shall be reviewed and updated annually by the dam owner and local emergency management agency personnel. All signatory parties to this plan should be encouraged to attend to assure all names and contact information is current. Revisions shall be promptly provided to all parties.

IX. TRAINING

All people involved in the EAP shall be trained to ensure that they are thoroughly familiar with the elements of the plan, availability of equipment, and their responsibilities and duties in executing the plan. Personnel shall be trained in problem detection and evaluation, and appropriate corrective measures.

This training is essential for proper evaluation of developing situations at all levels of responsibility. NRCS will assist with the training if requested.

A tabletop exercise shall be conducted at least once every 5 years. The tabletop exercise involves a meeting of the dam owner and State and local emergency management officials in a conference room environment. The exercise begins with a description of a simulated event and proceeds with discussions by the participants to evaluate the EAP and response procedures, and to resolve concerns regarding coordination and responsibilities.

X. DISTRIBUTION

Copies of this Emergency Action Plan have been provided to all individuals or groups who are signatory parties to the plan. Large-scale maps are on file with the local emergency management agency for evacuation purposes.

XI. APPROVAL OF THE PLAN

We, the undersigned individuals, as authorized by the laws and regulations of the United States and the State of Alabama, hereby adopt this Emergency Action Plan and agree to execute it.

Richard D. Holland

President
University of West Alabama

05.24.2013
Date

Mayor
City of Livingston

5-28-13
Date

Police Chief
University of West Alabama

5/29/13
Date

Roger Tolbert

Police Chief
City of Livingston

5/28/13
Date

Margaret A. Bishop-Gulley

Sumter County Emergency Management Agency

5/29/13
Date

Sheriff, Sumter County

5/23/13
Date

XII. REVIEW AND UPDATE OF THE PLAN

This plan will be reviewed and updated annually and tabletop exercises will be conducted at least once every five years. Document these review below:

Date of Review:_____ Participants: _____

_____

_____

_____

Date of Review:_____ Participants: _____

_____

_____

_____

Date of Review:_____ Participants: _____

_____

_____

_____

Date of Review:_____ Participants: _____

_____

_____

_____

Date of Tabletop Exercise: _____ Participants: _____

_____

_____

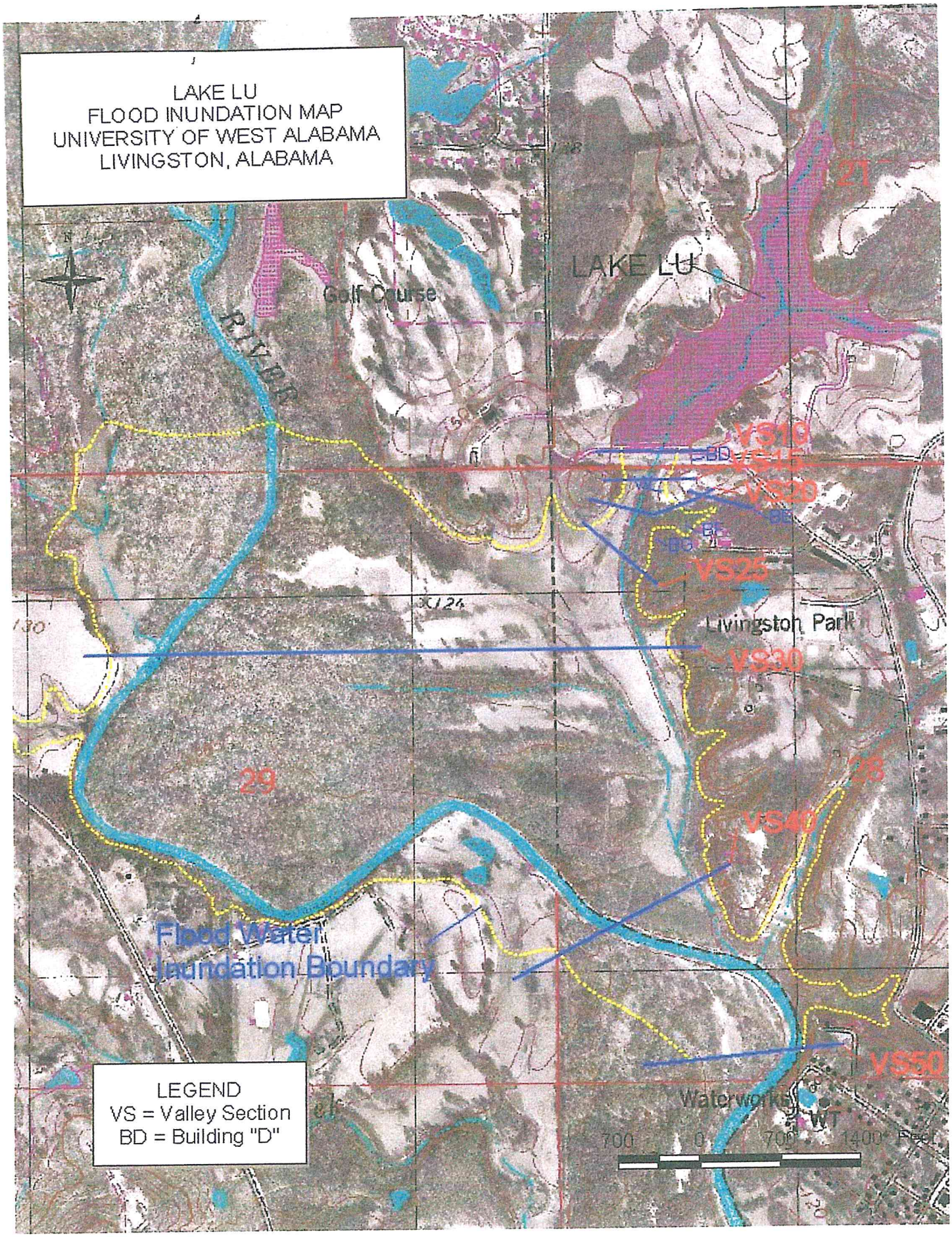
_____

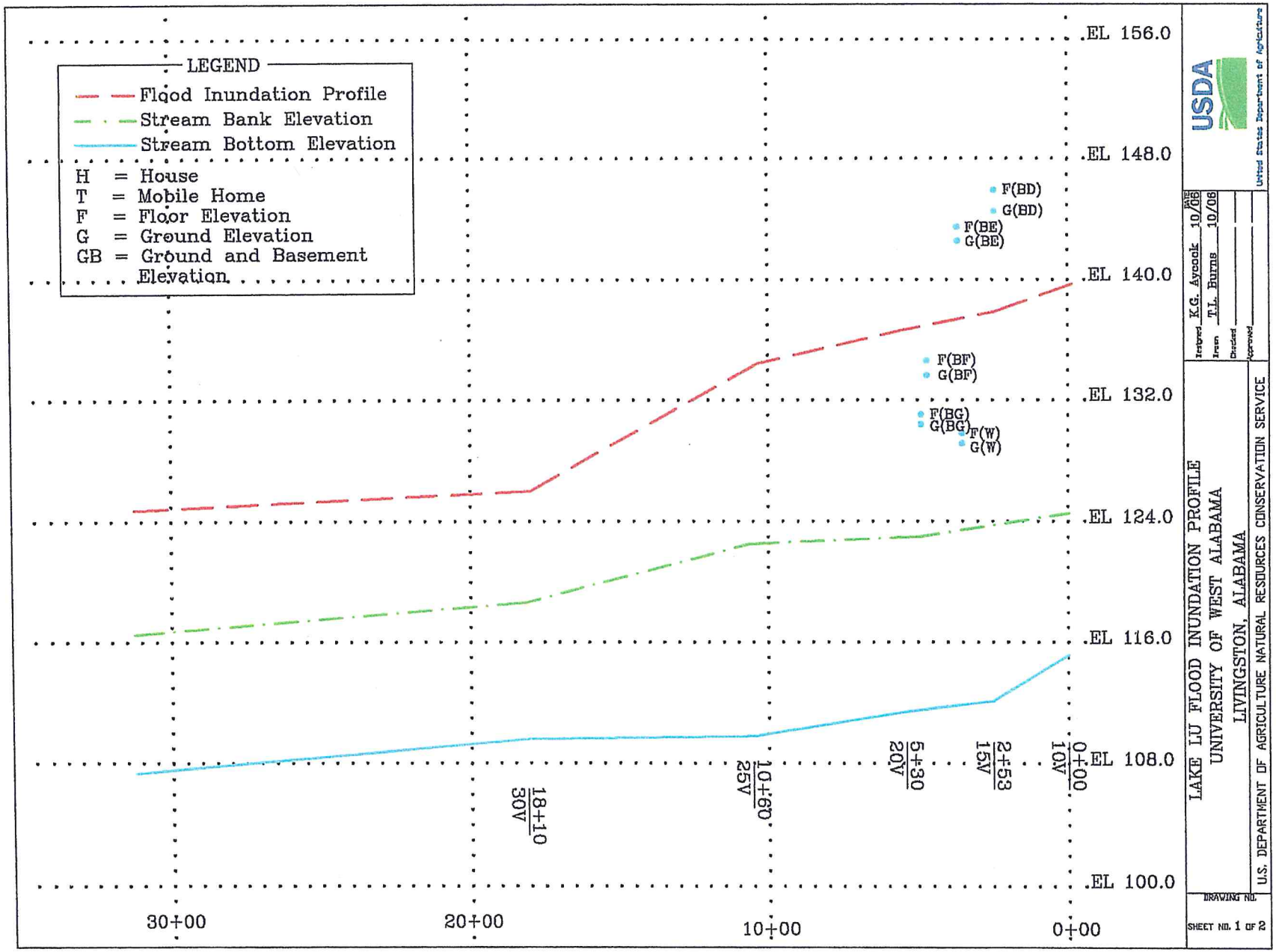
LAKE LU
FLOOD INUNDATION DATA

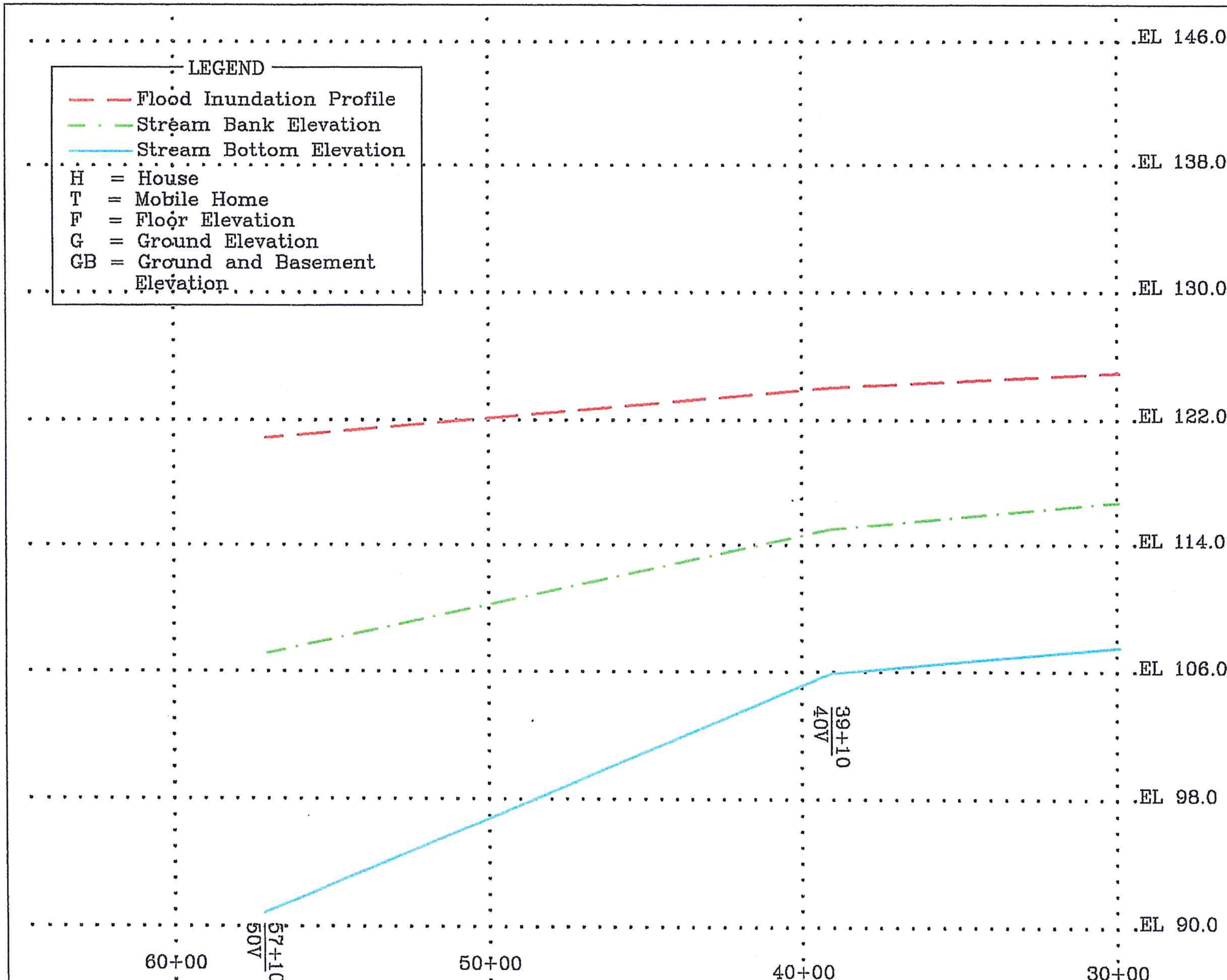
LOCATION[1/]	DISTANCE FROM DAM (feet)	FLOOD WATER SURFACE ELEVATION (feet)	STRUCTURE ELEVATION		CONTACT PERSON [2/]
			Ground (feet)	Floor (feet)	
BD	253	137.6	144.8	145.9	Name: Brenda Holder Phone: 205-652-2967
Wash House [3/]	350	137.2	129.2	129.9	Name: Brenda Holder Phone: 205-652-2967 Phone: 205-499-8037 (C)
BE	370	137.1	142.7	143.7	Name: Brenda Holder Phone: 205-652-2967
BF	460	136.8	133.7	134.7	Name: Wilbur Brown Phone: 205-200-6582
BG	480	136.7	130.5	131.6	Name: Anthony Taylor Phone: 205-499-0290 Name: Robert Henley Phone: 205-499-8061

[1/] Apartment Houses.
[2/] Each apartment should have a contact person who is responsible for contacting all residents of the apartment. This contact person will be contacted by emergency officials.
[3/] This is a laundry for apartment residents. Contact person should be an on-site contact responsible for the laundry.

Location indicates building identification, (example: BD is Building "D")


LAKE LU
FLOOD INUNDATION MAP
UNIVERSITY OF WEST ALABAMA
LIVINGSTON, ALABAMA
LAKE LU
Golf Course
RIVER
21
VS10
VS15
VS20
VS25
Livingston Park
VS30
29
28
VS40
Flood Water
Inundation Boundary
VS50
Waterworks
WT
LEGEND
VS = Valley Section
BD = Building "D"
700
0
700
1400 Feet


LEGEND
Flood Inundation Profile
Stream Bank Elevation
Stream Bottom Elevation
H = House
T = Mobile Home
F = Floor Elevation
G = Ground Elevation
GB = Ground and Basement Elevation
EL 156.0
EL 148.0
EL 140.0
EL 132.0
EL 124.0
EL 116.0
EL 108.0
EL 100.0
F(BD)
G(BD)
F(BE)
G(BE)
F(BF)
G(BF)
F(BG)
G(BG)
F(W)
G(W)
18+10 30V
10+60 25V
5+30 20V
2+53 15V
0+00 10V
30+00
20+00
10+00
0+00
USDA
United States Department of Agriculture
Designed K.G. Aycock 10/06
Drawn T.L. Burns 10/06
Checked
Approved
LAKE LU FLOOD INUNDATION PROFILE
UNIVERSITY OF WEST ALABAMA
LIVINGSTON, ALABAMA
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE
DRAWING NO.
SHEET NO. 1 OF 2



LAKE LU FLOOD INUNDATION PROFILE
UNIVERSTIY OF WEST ALABAMA
LIVINGSTON, ALABAMA

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

Designed	K.G. Aycock	10/06
Drawn	T.L. Burns	10/06
Checked		
Approved		

USDA
United States Department of Agriculture

DRAWING NO.
SHEET NO. 2 OF 2

DISTRIBUTION LIST

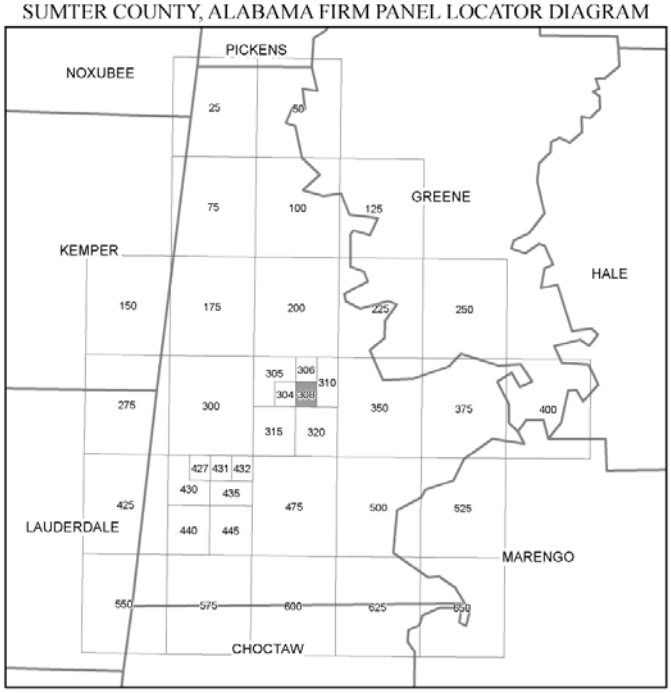
Natural Resources Conservation Service (2)
Dr. Richard Holland, UWA President
Tom Tartt, Livingston Mayor
Jeff Manuel, UWA Police Chief
Roger Tolliver, Livingston Police Chief
Terry Peeler, Livingston Fire Chief
Tyrone Clark, Sumter County Sheriff
Anthony Crear, Sumter County Engineer
Margaret Bishop-Gulley, Sumter County EMA
Bobby Truelove, UWA Assistant Director of Physical Plant
Robby Limerick, UWA Lake Manager
Bobby Holycross, UWA Health & Safety Coordinator
Brenda Holder, Apartment Building Contact Person
Larry Boshell, UWA EMA

EMAIL DISTRIBUTION LIST

UWA President's Council
Mike Gunn, NRCS-Livingston
Margaret Bishop-Gulley, Sumter County EMA

APPENDIX 5
Sumter County Firmettes

SUMTER COUNTY, ALABAMA FIRM PANEL LOCATOR DIAGRAM



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

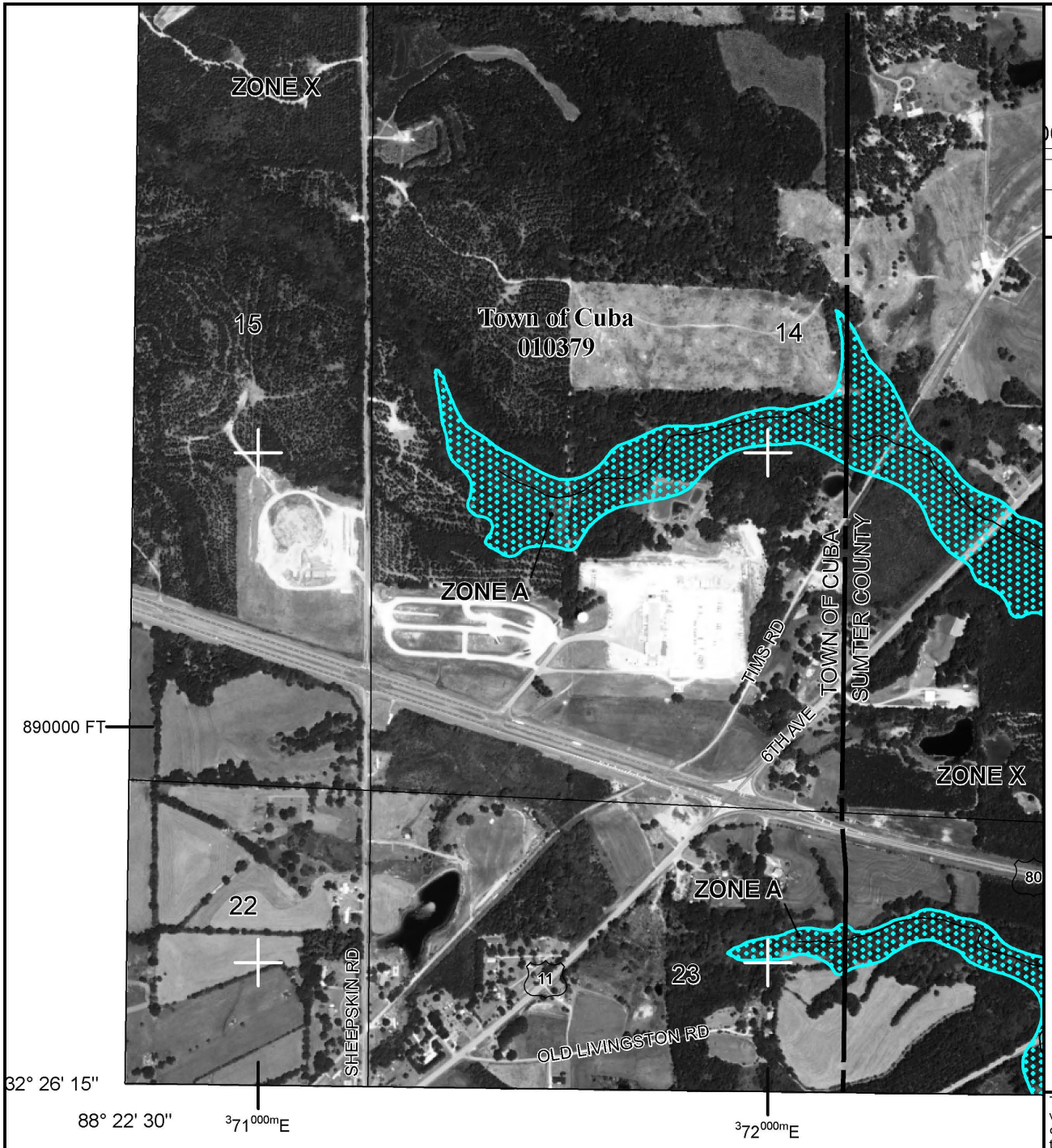
ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAS)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
	CBRS and OPA boundary
	International, State, or County boundary
	Corporate, Extraterritorial Jurisdiction, or Urban Growth boundary
	Area Not Included boundary
	Military Reservation, Native American Lands boundary
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*
	* Referenced to the North American Vertical Datum of 1988
A A	Cross section line
23 23	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
4276000mE	1000-meter Universal Transverse Mercator grid values, zone 16
600000 FT	5000-foot grid ticks: Alabama State Plane coordinate system, east zone (FIPS 0101), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
● M1.5	River Mile
	Aqueduct, Culvert, Flume, Penstock, or Storm Sewer
	Road or Railroad Bridge



MAP #1

MAP SCALE 1" = 1000'

00 0 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0430D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 430 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

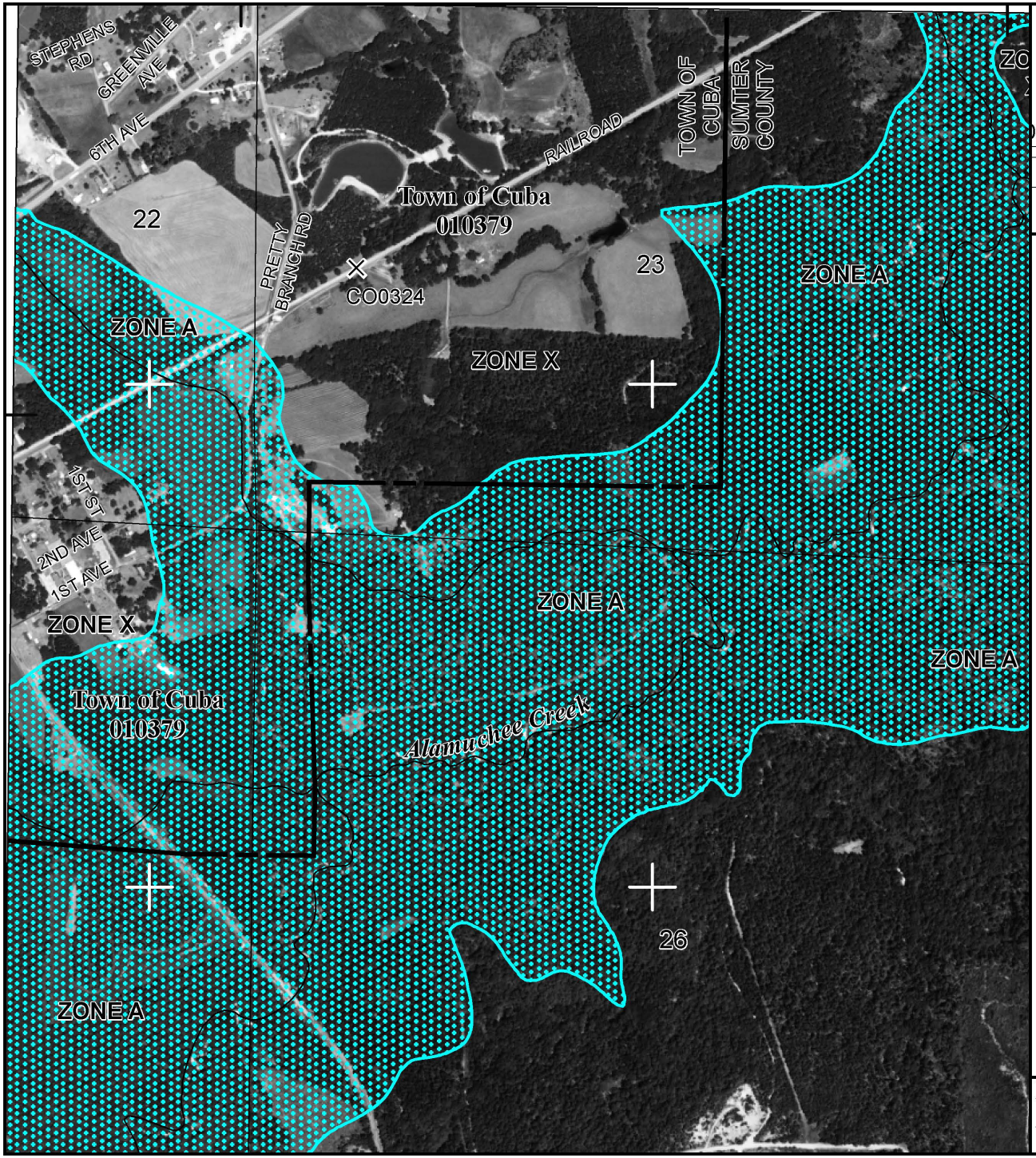
COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, TOWN OF	010379	0430	D
SUMTER COUNTY	010194	0430	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0430D

State of Alabama
Federal Emergency Management Agency



MAP #2

MAP SCALE 1" = 1000'

0 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0440D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 440 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

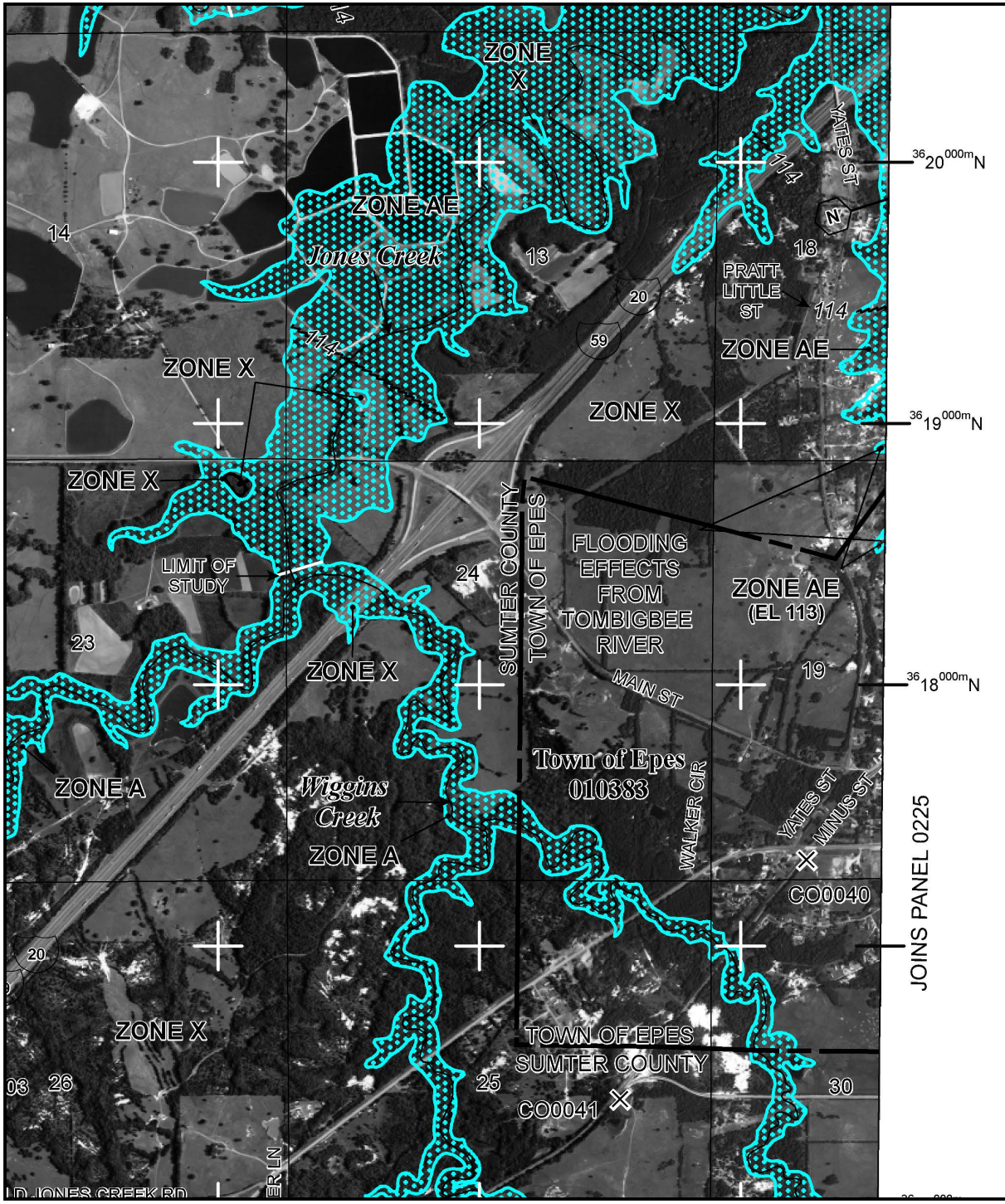
COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, TOWN OF	010379	0440	D
SUMTER COUNTY	010194	0440	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0440D

State of Alabama
Federal Emergency Management Agency



MAP #3

MAP SCALE 1" = 2000'

00 0 2000 4000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0200D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 200 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

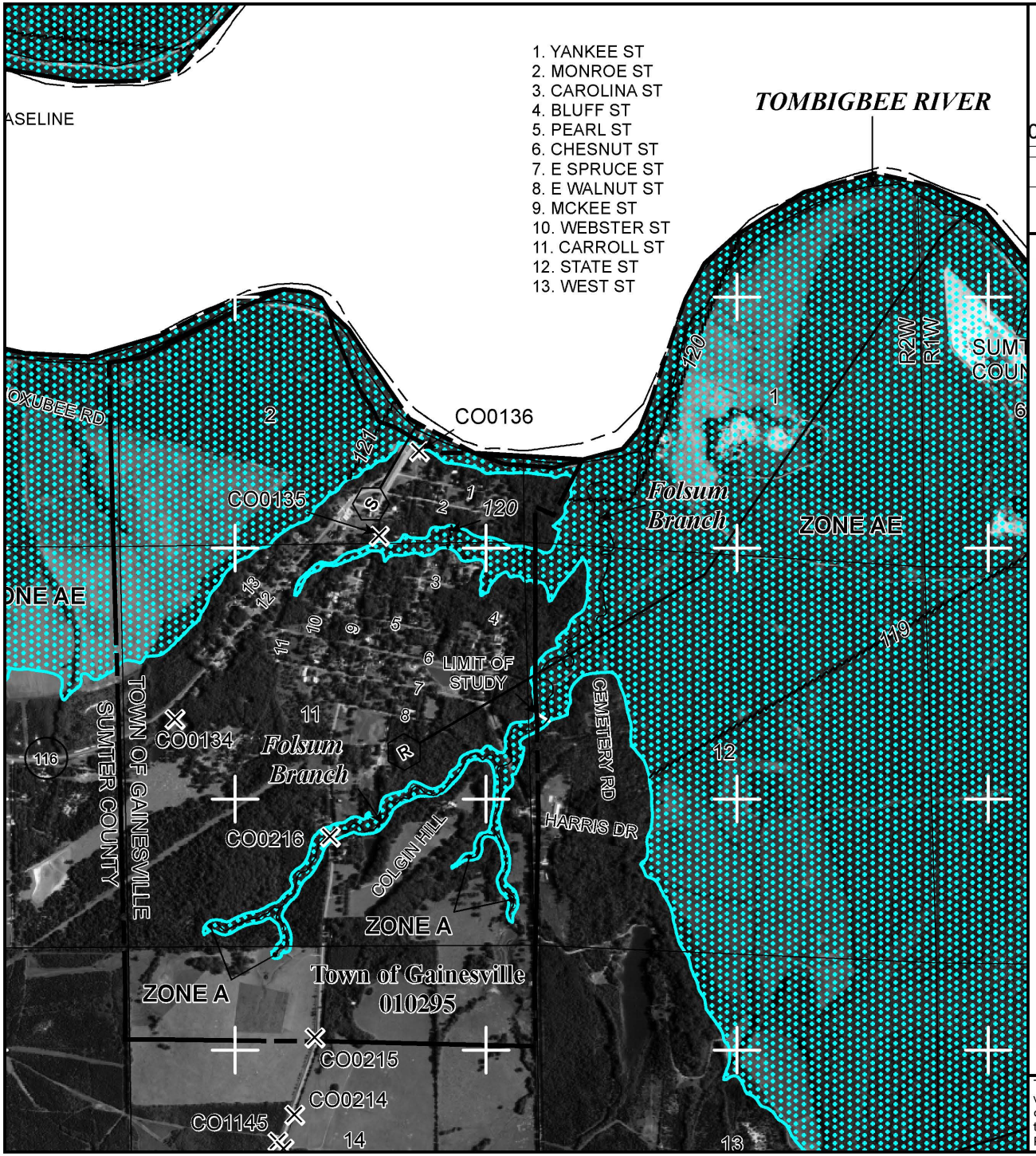
COMMUNITY	NUMBER	PANEL	SUFFIX
EPES, TOWN OF	010383	0200	D
LIVINGSTON, CITY OF	010195	0200	D
SUMTER COUNTY	010194	0200	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0200D

State of Alabama
Federal Emergency Management Agency



MAP #4

MAP SCALE 1" = 2000'

00 0 2000 4000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0100D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 100 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

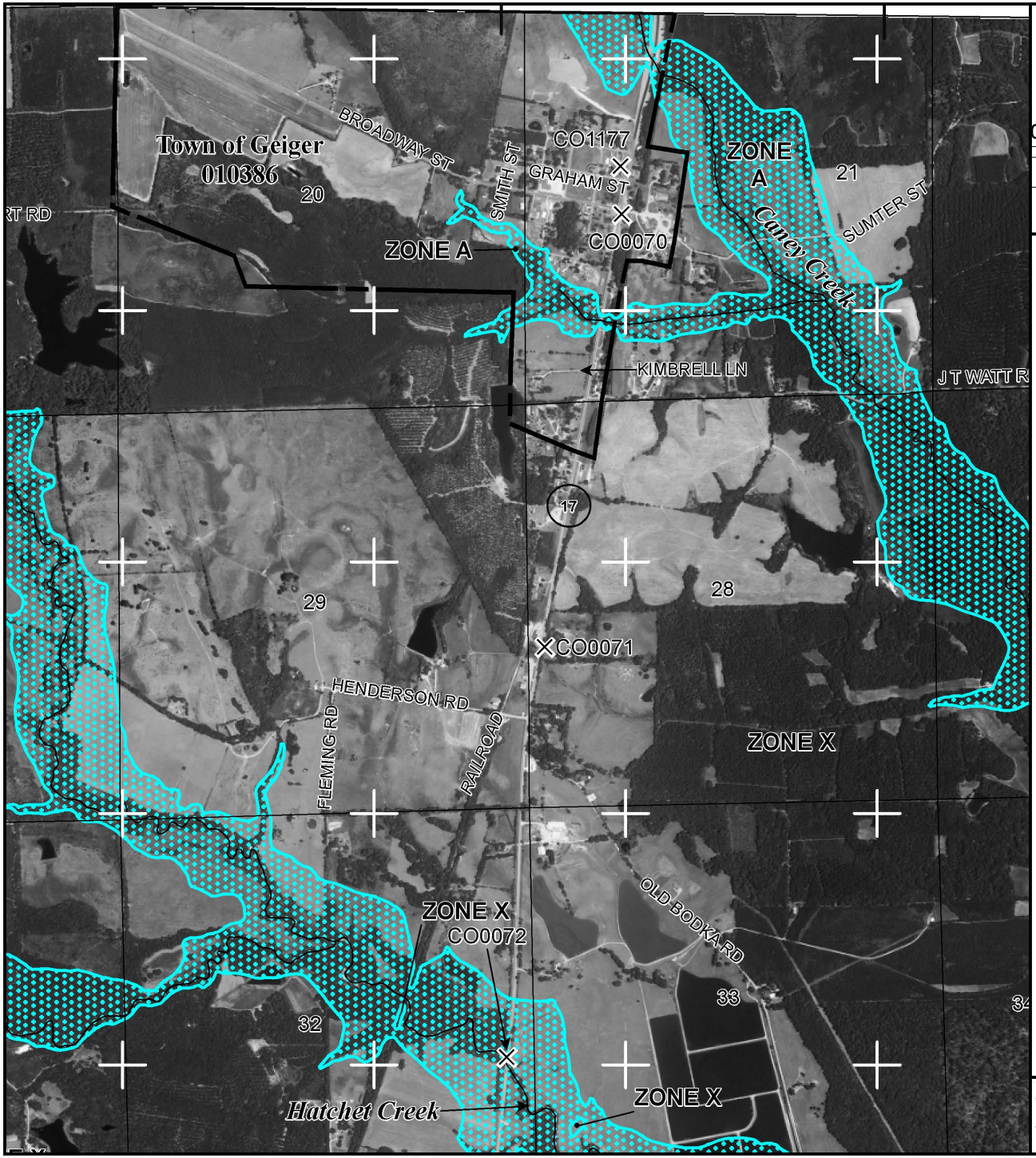
COMMUNITY	NUMBER	PANEL	SUFFIX
GAINESVILLE, TOWN OF	010295	0100	D
SUMTER COUNTY	010194	0100	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0100D

State of Alabama
Federal Emergency Management Agency



MAP #5

MAP SCALE 1" = 2000'

00 0 2000 4000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0075D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 75 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

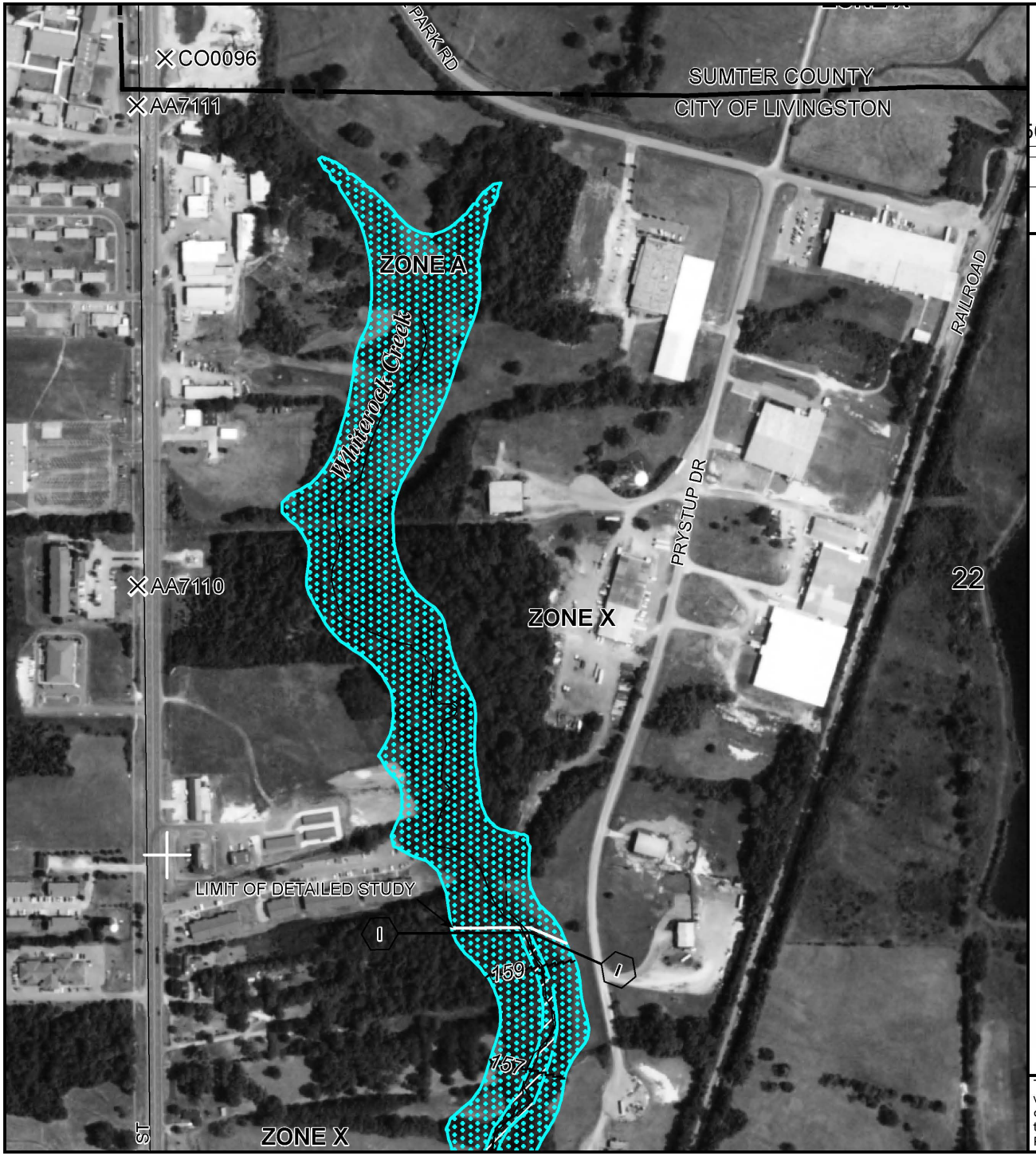
CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GEIGER, TOWN OF	010386	0075	D
SUMTER COUNTY	010194	0075	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE	MAP NUMBER
APRIL 3, 2012	01119C0075D

State of Alabama
Federal Emergency Management Agency



MAP #6

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0306D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 306 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

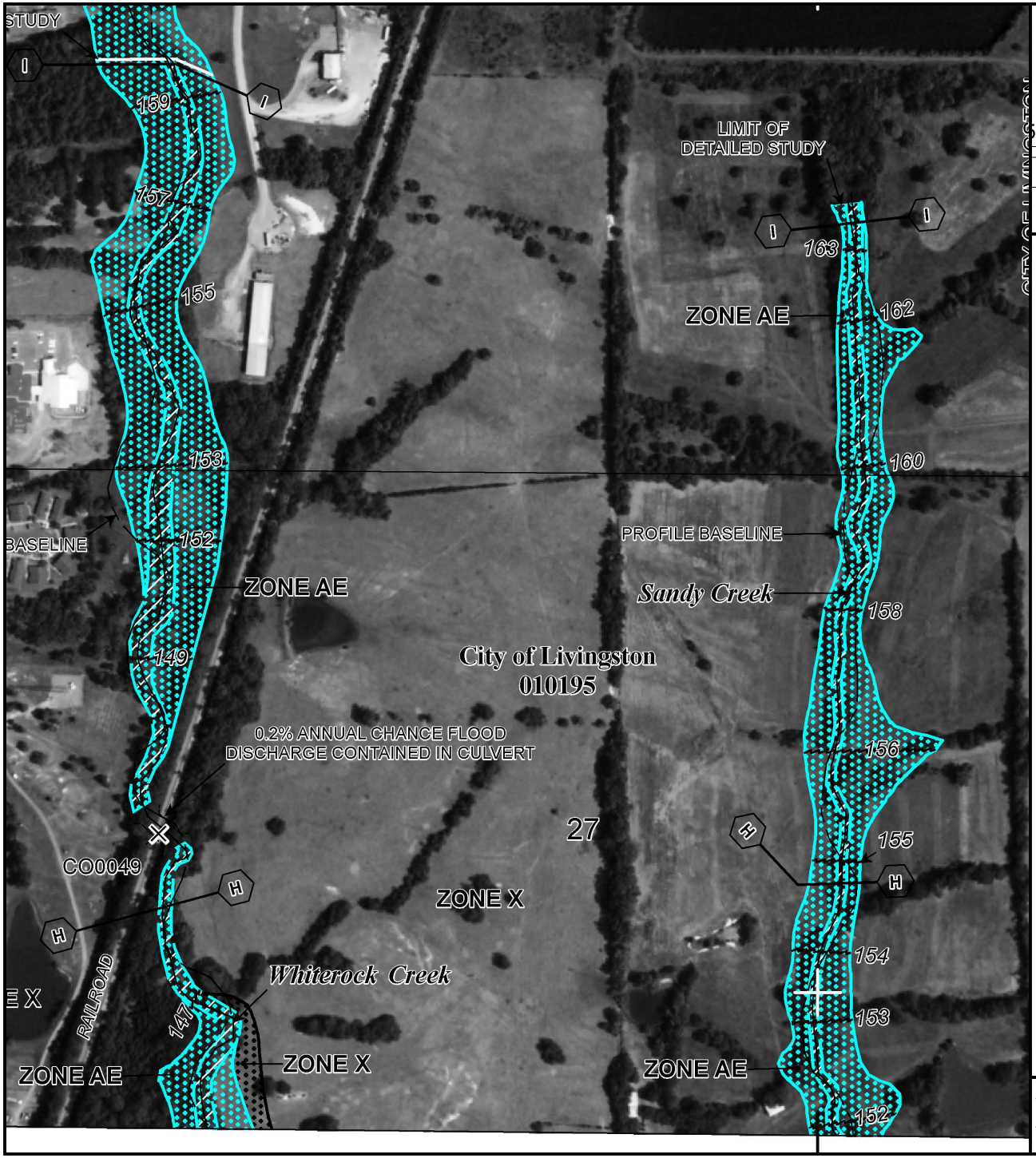
COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0306	D
SUMTER COUNTY	010194	0306	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0306D

State of Alabama
Federal Emergency Management Agency



MAP #7

MAP SCALE 1" = 500'

500 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0306D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 306 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

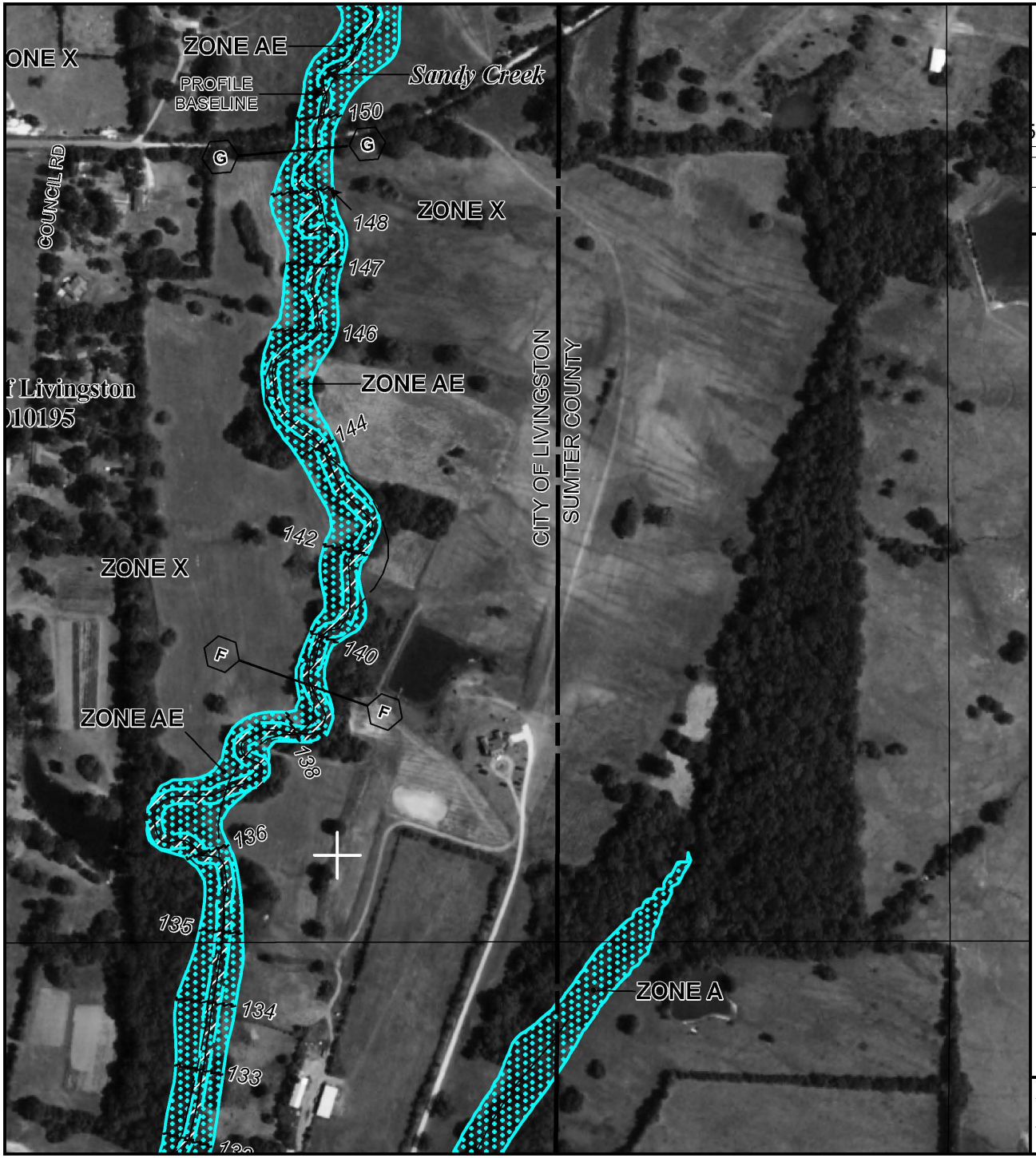
COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0306	D
SUMTER COUNTY	010194	0306	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0306D

State of Alabama
Federal Emergency Management Agency



MAP #8

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0308D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA AND INCORPORATED AREAS

PANEL 308 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

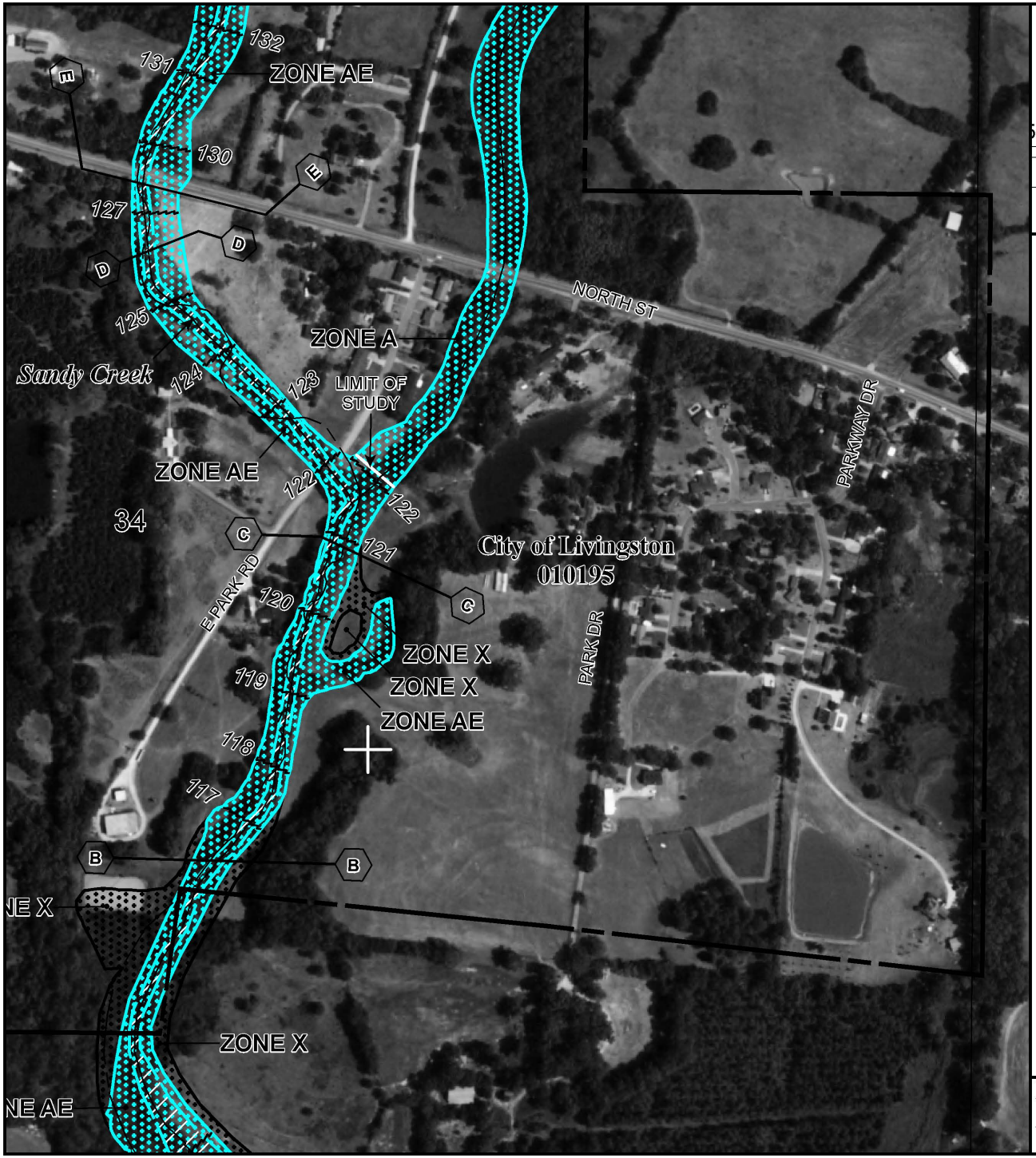
COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0308	D
SUMTER COUNTY	010194	0308	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0308D

State of Alabama
Federal Emergency Management Agency



MAP #9

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0308D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 308 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0308	D
SUMTER COUNTY	010194	0308	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE	MAP NUMBER
APRIL 3, 2012	01119C0308D

State of Alabama
Federal Emergency Management Agency

MAP #10

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0308D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 308 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0308	D
SUMTER COUNTY	010194	0308	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0308D

State of Alabama
Federal Emergency Management Agency

° 11' 15"

176000

MAP #11

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0308D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 308 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

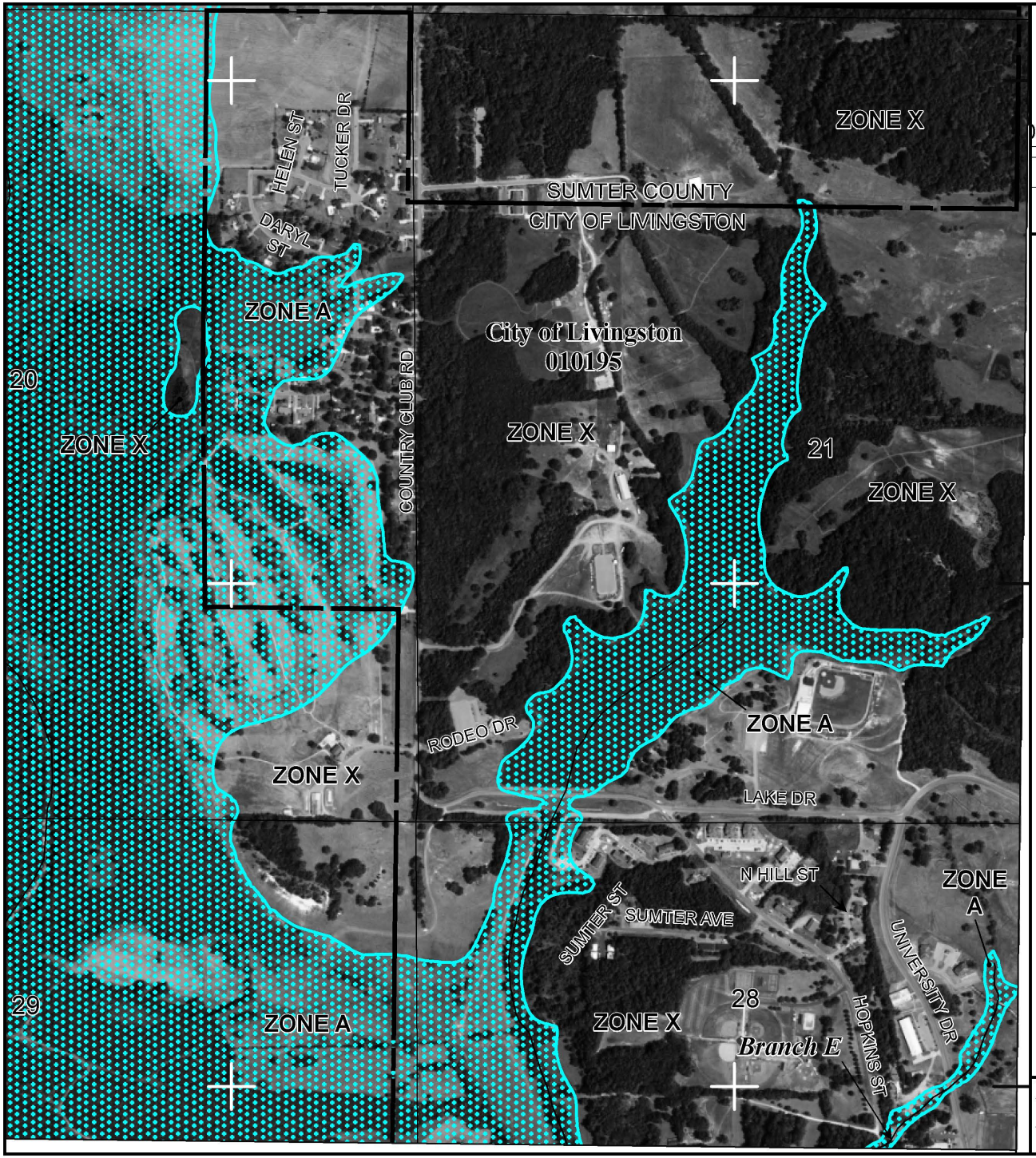
COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0308	D
SUMTER COUNTY	010194	0308	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0308D

State of Alabama
Federal Emergency Management Agency



MAP #12

MAP SCALE 1" = 1000'

00 0 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0305D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 305 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

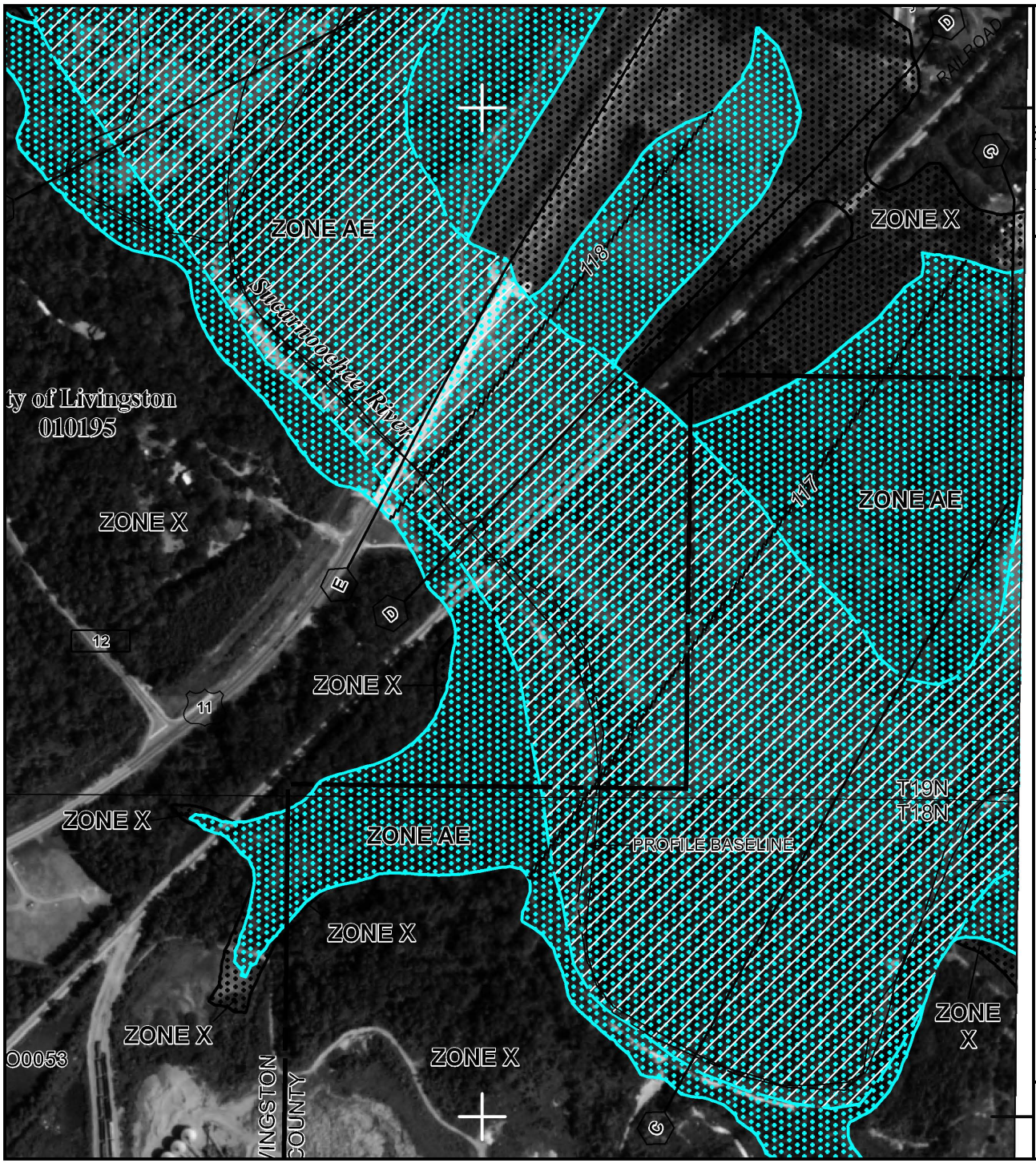
COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0305	D
SUMTER COUNTY	010194	0305	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0305D

State of Alabama
Federal Emergency Management Agency



MAP #13

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0304D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 304 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0304	D
SUMTER COUNTY	010194	0304	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE	MAP NUMBER
APRIL 3, 2012	01119C0304D

State of Alabama
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

MAP #14

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0304D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA AND INCORPORATED AREAS

PANEL 304 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0304	D
SUMTER COUNTY	010194	0304	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0304D

State of Alabama
Federal Emergency Management Agency

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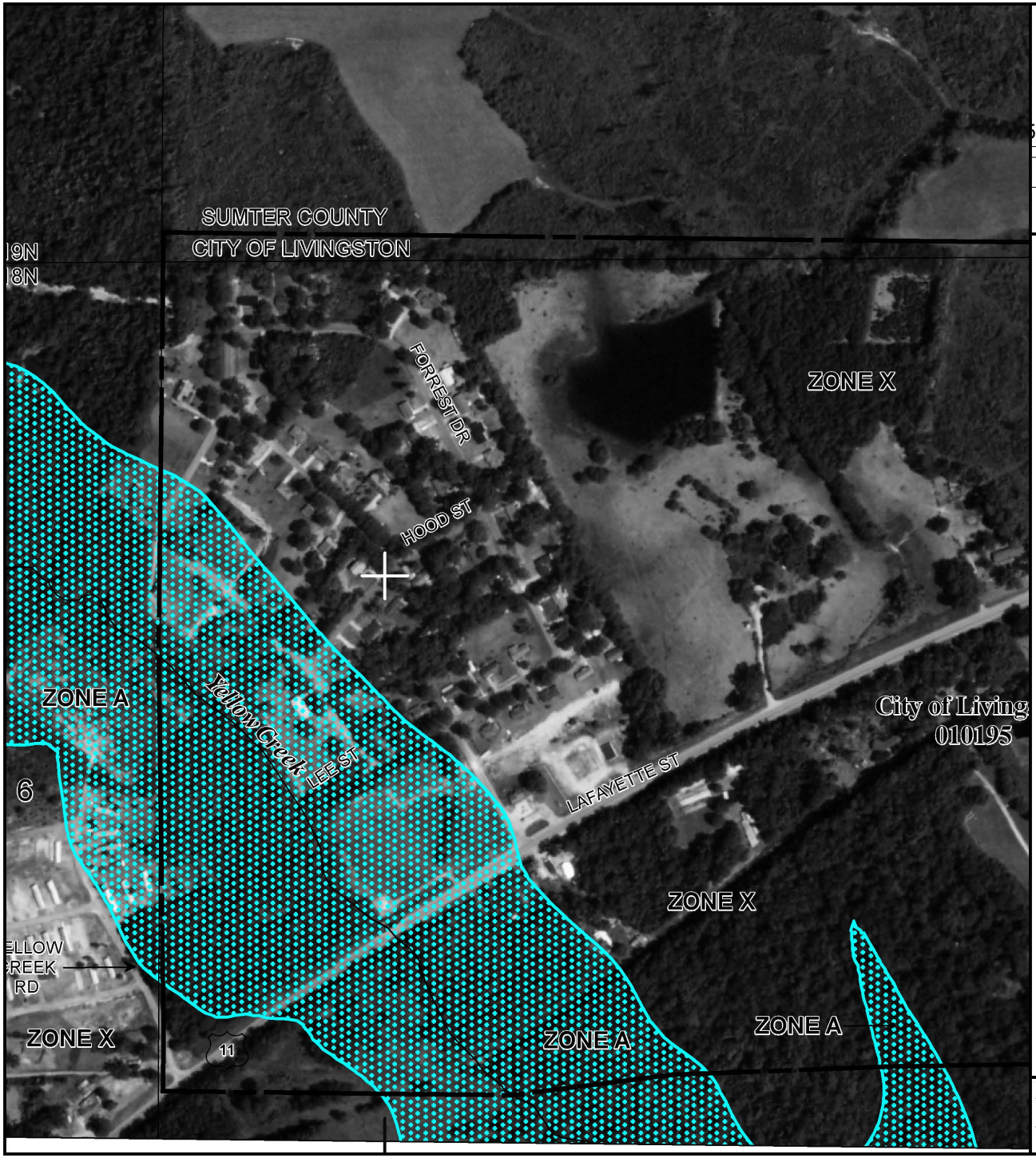


MAP #15

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0304D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 304 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LIVINGSTON, CITY OF	010195	0304	D
SUMTER COUNTY	010194	0304	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0304D

State of Alabama
Federal Emergency Management Agency

MAP #16

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0431D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 431 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

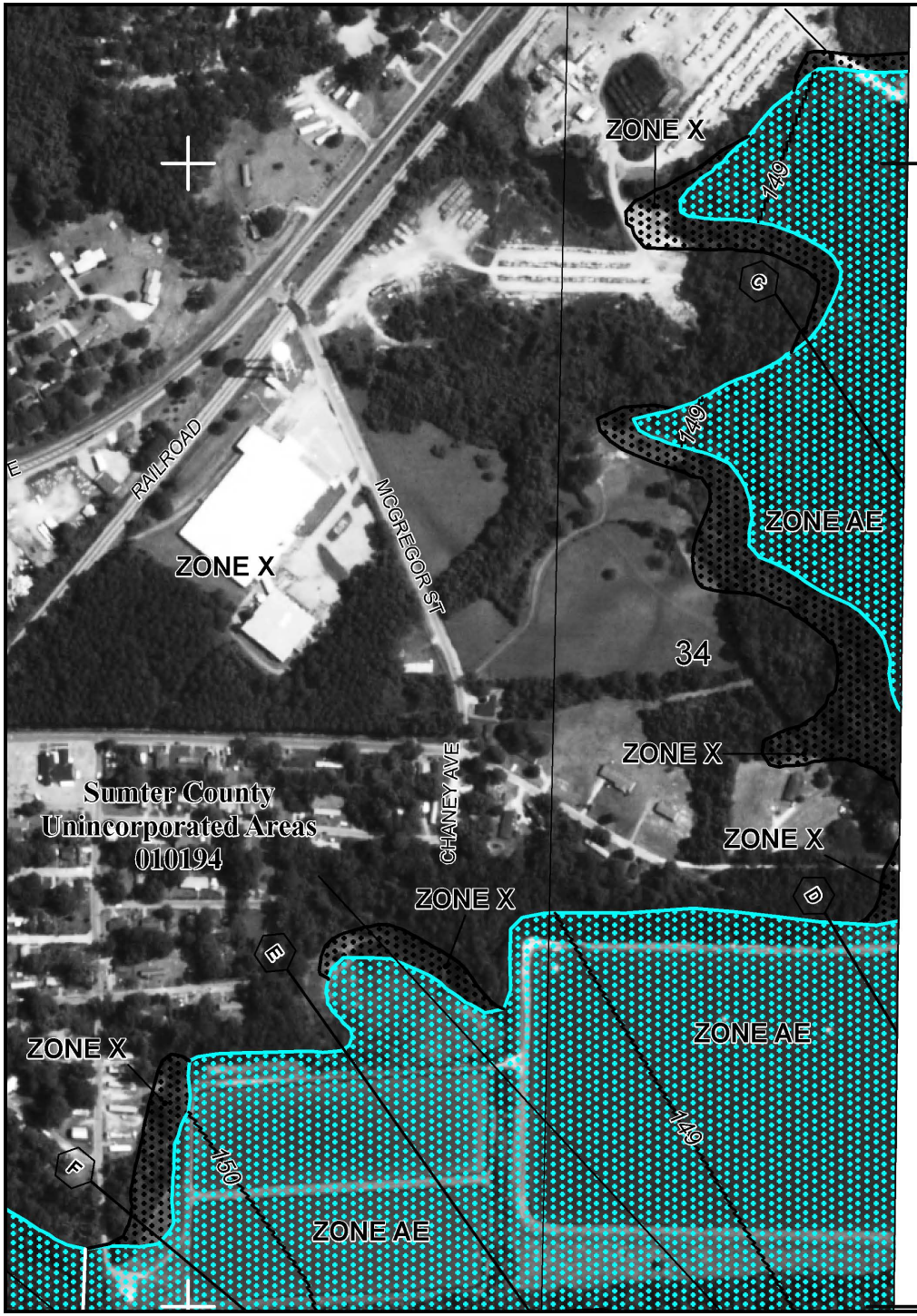
COMMUNITY	NUMBER	PANEL	SUFFIX
SUMTER COUNTY	010194	0431	D
YORK, CITY OF	010196	0431	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE	MAP NUMBER
APRIL 3, 2012	01119C0431D

State of Alabama

Federal Emergency Management Agency



MAP #17

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0431D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA
AND INCORPORATED AREAS

PANEL 431 OF 650
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SUMTER COUNTY	010194	0431	D
YORK, CITY OF	010196	0431	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0431D

State of Alabama
Federal Emergency Management Agency

MAP #18

MAP SCALE 1" = 500'

50 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0427D

FIRM

FLOOD INSURANCE RATE MAP

SUMTER COUNTY, ALABAMA

AND INCORPORATED AREAS

PANEL 427 OF 650

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SUMTER COUNTY	010194	0427	D
YORK, CITY OF	010196	0427	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
APRIL 3, 2012

MAP NUMBER
01119C0427D

State of Alabama
Federal Emergency Management Agency

APPENDIX 6

Sumter County Past Occurrences

SUMTER COUNTY PAST OCCURRENCES

All data is from the National Storm Events Database unless otherwise noted

Sumter County Extreme Temperature Occurrences							
	Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
1	Countywide	8/8/2007	Heat	N/A	N/A	$ -	$ -
2	Countywide	7/1/2012	Heat	0	0	$ -	$ -
3	Countywide	7/3/2012	Heat	0	0	$ -	$ -
4	Countywide	7/29/2012	Heat	0	0	$ -	$ -
5	Countywide	8/1/2012	Heat	0	0	$ -	$ -
	Totals					$ -	$ -

Sumter County Flooding Events							
	Location	Date	Deaths	Injuries	Property Damage	Crop Damage	Type
1	Countywide	1/7/1998	0	0	$ 30,000.00	$ 5,000.00	Flash
2	Sumter	4/7/2003	0	0	$ 85,000.00	$ 250,000.00	River
3	Countywide	4/7/2003	1	0	$100,000.00	$ -	Flash
4	Sumter	4/24/2003	0	0	$ 60,000.00	$ 25,000.00	River
5	Countywide	4/24/2003	0	0	$ 25,000.00	$ -	Flash
6	Sumter	5/21/2003	0	0	$ -	$ -	River
7	Countywide	2/5/2004	0	0	$ 60,000.00	$ -	Flash
8	Countywide	2/5/2004	0	0	$ 5,000.00	$ -	Flash
9	Countywide	2/6/2004	0	0	$ 5,000.00	$ -	Flash
10	Countywide	6/29/2004	0	0	$ 5,000.00	$ -	Flash
11	York	7/2/2004	0	0	$ 5,000.00	$ -	Flash
12	Sumter	4/1/2005	0	0	$ -	$ -	River
13	Countywide	4/1/2005	0	0	$ 7,000.00	$ -	Flash
14	Sumter	4/6/2005	0	0	$ -	$ -	River
15	Sumter	6/12/2005	0	0	$ -	$ -	River
16	Countywide	7/6/2005	0	0	$ 4,000.00	$ -	Flash
17	Sumter	7/11/2005	0	0	$ 5,000.00	$ -	River
18	Cuba	5/10/2006	0	0	$ -	$ -	Flash
19	Epes	5/27/2009	0	0	$ 10,000.00	$ -	Flash
20	Panola	9/21/2009	0	0	$ 10,000.00	$ -	Flash
21	Geiger	3/23/2012	0	0	$ -	$ -	Flash
22	Livingston	8/2/2012	0	0	$ -	$ -	Flash
	Totals:		1	0	$416,000.00	$ 280,000.00	

Sumter County Hurricane and Coastal Storm Occurrences							
	Location	Date	Deaths	Injuries	Property Damage	Crop Damage	Type
1	Sumter	7/10/2005	0	0	$ 210,000.00	$ -	Tropical Storm
2	Sumter	8/29/2005	0	0	$ -	$ -	Tropical Storm
3	Sumter	8/23/2008	0	0	$ 1,000.00	$ -	Tropical Depression
4	Sumter	11/9/2009	0	0	$ 1,000.00	$ -	Tropical Depression
	Totals		0	0	$ 212,000.00	$ -	

Sumter County Historical Occurrences Severe Storms								
	Location	**Date**	**Magnitude**	**Deaths**	**Injuries**	**Property Damage**	**Crop Damage**	**Type**
1	Sumter	4/15/1956	2.00 in.	0	0	$ -	$ -	Hail
2	Sumter	2/4/1960	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
3	Sumter	5/17/1969	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
4	Sumter	3/16/1972	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
5	Sumter	4/9/1975	1.75 in.	0	0	$ -	$ -	Hail
6	Sumter	7/6/1977	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
7	Sumter	5/18/1980	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
8	Sumter	5/18/1980	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
9	Sumter	9/25/1982	1.75 in.	0	0	$ -	$ -	Hail
10	Sumter	9/25/1982	1.75 in.	0	0	$ -	$ -	Hail
11	Sumter	5/29/1983	1.75 in.	0	0	$ -	$ -	Hail
12	Sumter	5/29/1983	1.75 in.	0	0	$ -	$ -	Hail
13	Sumter	5/29/1983	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
14	Sumter	7/16/1983	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
15	Sumter	8/26/1983	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
16	Sumter	12/3/1983	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
17	Sumter	5/3/1984	0 kts.	0	0	$ -	$ -	Thunderstorm Wind

18	Sumter	3/21/1985	1.75 in.	0	0	$ -	$ -	Hail
19	Sumter	2/4/1986	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
20	Sumter	2/17/1986	0.75 in.	0	0	$ -	$ -	Hail
21	Sumter	2/17/1986	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
22	Sumter	3/12/1986	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
23	Sumter	11/25/1986	0 kts.	0	2	$ -	$ -	Thunderstorm Wind
24	Sumter	3/12/1988	0.75 in.	0	0	$ -	$ -	Hail
25	Sumter	4/23/1988	1.00 in.	0	0	$ -	$ -	Hail
26	Sumter	4/23/1988	0.75 in.	0	0	$ -	$ -	Hail
27	Sumter	7/29/1989	1.75 in.	0	0	$ -	$ -	Hail
28	Sumter	11/15/1989	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
29	Sumter	2/10/1990	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
30	Sumter	4/1/1990	0.75 in.	0	0	$ -	$ -	Hail
31	Sumter	5/21/1990	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
32	Sumter	6/22/1990	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
33	Sumter	7/23/1990	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
34	Sumter	12/18/1990	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
35	Sumter	3/29/1991	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
36	Sumter	4/4/1991	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
37	Sumter	4/4/1991	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
38	Sumter	4/9/1991	0.75 in.	0	0	$ -	$ -	Hail
39	Sumter	4/9/1991	0.75 in.	0	0	$ -	$ -	Hail
40	Sumter	4/28/1991	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
41	Sumter	5/5/1991	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
42	Sumter	10/22/1991	0.75 in.	0	0	$ -	$ -	Hail
43	Sumter	4/20/1992	0.75 in.	0	0	$ -	$ -	Hail

44	Sumter	4/20/1992	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
45	Sumter	6/3/1992	0.75 in.	0	0	$ -	$ -	Hail
46	Sumter	6/3/1992	0.75 in.	0	0	$ -	$ -	Hail
47	Sumter	7/16/1992	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
48	Sumter	8/27/1992	0.75 in.	0	0	$ -	$ -	Hail
49	Sumter	8/27/1992	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
50	Sumter	8/27/1992	0 kts.	0	0	$ -	$ -	Thunderstorm Wind
51	Sumter	2/11/1993	0.75 in.	0	0	$ -	$ -	Hail
52	Sumter	4/15/1993	0.75 in.	0	0	$ -	$ -	Hail
53	Cuba	3/7/1995	0.75 in.	0	0	$ -	$ -	Hail
54	York	3/7/1995	0.75 in.	0	0	$ -	$ -	Hail
55	Livingston	5/15/1995	0 kts.	0	0	$ 2,000.00	$ -	Thunderstorm Wind
56	York	5/15/1995	0 kts.	0	0	$ 5,000.00	$ -	Thunderstorm Wind
57	York	5/18/1995	1.75 in.	0	0	$ -	$ -	Hail
58	Livingston	5/18/1995	0.75 in.	0	0	$ -	$ -	Hail
59	Bellamy	5/28/1995	0 kts.	0	0	$ 200.00	$ -	Thunderstorm Wind
60	Livingston	7/9/1995	1.00 in.	0	0	$ -	$ -	Hail
61	Monroeville	7/9/1995	0.75 in.	0	0	$ -	$ -	Hail
62	York	7/9/1995	0.75 in.	0	0	$ -	$ -	Hail
63	Epes	7/9/1995	0.75 in.	0	0	$ -	$ -	Hail
64	Bellamy	1/30/1996	0.75 in.	0	0	$ -	$ -	Hail
65	Cuba	3/6/1996	in.	0	0	$ 10,000.00	$ -	Hail
66	York	3/6/1996	50 kts.	0	0	$ 45,000.00	$ -	Thunderstorm Wind
67	Geiger	3/6/1996	50 kts.	0	0	$ 10,000.00	$ -	Thunderstorm Wind
68	York	4/14/1996	0.75 in.	0	0	$ 10,000.00	$ -	Hail
69	Livingston	4/22/1996	56 kts.	0	0	$ 40,000.00	$ -	Thunderstorm Wind
70	Epes	9/16/1996	50 kts.	0	0	$ 15,000.00	$ 2,000.00	Thunderstorm Wind

98	Warsaw	6/26/2001	0.75 in.	0	0	$ -	$ -	Hail
99	Ward	11/24/2001	1.75 in.	0	0	$ 2,000.00	$ -	Hail
100	Ward	11/24/2001	50 kts. E	0	0	$ 2,000.00	$ -	Thunderstorm Wind
101	York	6/27/2002	50 kts. E	0	0	$ 2,000.00	$ -	Thunderstorm Wind
102	York	7/20/2002	50 kts. E	0	0	$ 3,000.00	$ -	Thunderstorm Wind
103	Ward	8/20/2002	50 kts. E	0	0	$ 3,000.00	$ -	Thunderstorm Wind
104	Geiger	3/5/2003	0.75 in.	0	0	$ -	$ -	Hail
105	Livingston	3/5/2003	50 kts. EG	0	0	$ 5,000.00	$ -	Thunderstorm Wind
106	Cuba	3/14/2003	0.75 in.	0	0	$ -	$ -	Hail
107	Bellamy	3/14/2003	0.75 in.	0	0	$ -	$ -	Hail
108	Cuba	4/6/2003	1.75 in.	0	0	$ 13,000.00	$ -	Hail
109	Countywide	4/7/2003	55 kts. EG	0	0	$ 20,000.00	$ -	Thunderstorm Wind
110	Cuba	5/3/2003	0.75 in.	0	0	$ -	$ -	Hail
111	York	5/17/2003	50 kts. EG	0	0	$ 19,000.00	$ -	Thunderstorm Wind
112	Cuba	6/2/2003	50 kts. EG	0	0	$ 10,000.00	$ -	Thunderstorm Wind
113	York	7/21/2003	50 kts. EG	0	0	$ 7,000.00	$ -	Thunderstorm Wind
114	Cuba	8/3/2003	50 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
115	Gainesville	2/5/2004	0.75 in.	0	0	$ -	$ -	Hail
116	Emelle	2/5/2004	60 kts. ES	0	0	$ 3,000.00	$ -	Thunderstorm Wind
117	Panola	4/7/2004	0.75 in.	0	0	$ -	$ -	Hail
118	Panola	4/10/2004	0.75 in.	0	0	$ -	$ -	Hail
119	Countywide	9/16/2004	73 kts. EG	0	0	$ 3,600,000.00	$ 80,000.00	High Wind
120	Bellamy	10/19/2004	0.75 in.	0	0	$ -	$ -	Hail
121	Livingston	10/19/2004	1.00 in.	0	0	$ -	$ -	Hail
122	Cuba	10/19/2004	1.00 in.	0	0	$ -	$ -	Hail
123	Cuba	10/19/2004	1.00 in.	0	0	$ -	$ -	Hail
124	Bellamy	3/6/2005	0	0	0	$ 7,000.00	$ -	Lightning

125	York	3/7/2005	52 kts. ES	0	0	$ 8,000.00	$ -	Thunderstorm Wind
126	Bellamy	3/22/2005	0.75 in.	0	0	$ -	$ -	Hail
127	Bellamy	3/26/2005	0.75 in.	0	0	$ -	$ -	Hail
128	Cuba	3/26/2005	0.88 in.	0	0	$ -	$ -	Hail
129	Bellamy	3/26/2005	50 kts. EG	0	0	$ 3,000.00	$ -	Thunderstorm Wind
130	Livingston	4/6/2005	0.75 in.	0	0	$ 1,000.00	$ -	Hail
131	Livingston	4/22/2005	1.00 in.	0	0	$ 2,000.00	$ -	Hail
132	Geiger	4/22/2005	1.00 in.	0	0	$ 2,000.00	$ -	Hail
133	Cuba	5/20/2005	1.75 in.	0	0	$ 5,000.00	$ -	Hail
134	York	5/20/2005	0.88 in.	0	0	$ -	$ -	Hail
135	Cuba	5/20/2005	1.00 in.	0	0	$ -	$ -	Hail
136	Cuba	5/20/2005	55 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
137	Epes	7/1/2005	1.75 in.	0	0	$ 2,000.00	$ -	Hail
138	Livingston	7/1/2005	52 kts. EG	0	0	$ 11,000.00	$ -	Thunderstorm Wind
139	Bellamy	7/1/2005	50 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
140	Cuba	5/10/2006	0.75 in.	0	0	$ -	$ -	Hail
141	York	5/10/2006	0.75 in.	0	0	$ -	$ -	Hail
142	Epes	6/24/2006	0	0	0	$ 10,000.00	$ -	Lightning
143	Gainesville	7/28/2006	50 kts. EG	0	0	$ 3,000.00	$ -	Thunderstorm Wind
144	Gainesville	2/13/2007	0.75 in.	0	0	$ -	$ -	Hail
145	Warsaw	3/1/2007	0.75 in.	0	0	$ -	$ -	Hail
146	Sumterville	3/1/2007	52 kts. EG	0	0	$ 5,000.00	$ -	Thunderstorm Wind
147	Belmont	4/11/2007	0.88 in.	0	0	$ -	$ -	Hail
148	Livingston	7/10/2007	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
149	Bellamy	1/10/2008	40 kts. EG	0	0	$ 500.00	$ -	Thunderstorm Wind
150	Cuba	2/6/2008	50 kts. EG	0	0	$ 5,000.00	$ -	Thunderstorm Wind
151	Panola	2/6/2008	50 kts. EG	0	0	$ 3,000.00	$ -	Thunderstorm Wind

152	York	2/12/2008	52 kts. EG	0	0	$ 5,000.00	$ -	Thunderstorm Wind
153	Livingston	4/4/2008	55 kts. EG	0	0	$ 10,000.00	$ -	Thunderstorm Wind
154	Cuba	6/1/2008	0.75 in.	0	0	$ -	$ -	Hail
155	Livingston	6/14/2008	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
156	Boyd	7/5/2008	50 kts. EG	0	0	$ 500.00	$ -	Thunderstorm Wind
157	York	8/2/2008	0.88 in.	0	0	$ -	$ -	Hail
158	Panola	8/2/2008	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
159	Geiger	8/2/2008	50 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
160	Sumterville	8/2/2008	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
161	Belmont	2/18/2009	50 kts. EG	0	0	$ 3,000.00	$ -	Thunderstorm Wind
162	Parker	2/27/2009	1.00 in.	0	0	$ -	$ -	Hail
163	Siloam	3/26/2009	43 kts. EG	0	0	$ 500.00	$ -	Thunderstorm Wind
164	Siloam	5/3/2009	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
165	Cuba	5/3/2009	50 kts. EG	0	0	$ 3,000.00	$ -	Thunderstorm Wind
166	Panola	5/6/2009	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
167	Siloam	8/1/2009	35 kts. EG	0	0	$ 500.00	$ -	Thunderstorm Wind
168	Emelle	9/21/2009	0.88 in.	0	0	$ -	$ -	Hail
169	Epes	9/21/2009	1.00 in.	0	0	$ -	$ -	Hail
170	Siloam	3/10/2010	0.75 in.	0	0	$ -	$ -	Hail
171	Soctum Hill	3/10/2010	1.00 in.	0	0	$ -	$ -	Hail
172	Cuba	3/12/2010	1.00 in.	0	0	$ -	$ -	Hail
173	Cuba	4/24/2010	70 kts. EG	0	0	$ 100,000.00	$ -	Thunderstorm Wind
174	McCainville	7/16/2010	60 kts. EG	0	0	$ 7,000.00	$ -	Thunderstorm Wind
175	York	8/15/2010	55 kts. EG	0	0	$ 500.00	$ -	Thunderstorm Wind
176	Siloam	8/15/2010	60 kts. EG	0	0	$ 3,000.00	$ -	Thunderstorm Wind

177	Cuba	8/22/2010	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
178	York	11/30/2010	50 kts. EG	0	0	$ 3,000.00	$ -	Thunderstorm Wind
179	Livingston	2/24/2011	50 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
180	York	2/24/2011	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
181	York	2/24/2011	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
182	Lilita	2/24/2011	50 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
183	Persimmon Grove	3/9/2011	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
184	Livingston	3/26/2011	0.75 in.	0	0	$ -	$ -	Hail
185	Livingston	3/27/2011	0.75 in.	0	0	$ -	$ -	Hail
186	Cuba	4/4/2011	50 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
187	Soctum Hill	4/4/2011	50 kts. EG	0	0	$ 5,000.00	$ -	Thunderstorm Wind
188	York	4/4/2011	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
189	Livingston	4/4/2011	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
190	Livingston	4/11/2011	35 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
191	Emelle	4/27/2011	60 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
192	Livingston	4/27/2011	60 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
193	York	4/27/2011	60 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
194	Siloam	6/10/2011	35 kts. EG	0	0	$ 1,000.00	$ -	Thunderstorm Wind
195	Soctum Hill	6/16/2011	45 kts. EG	0	0	$ 500.00	$ -	Thunderstorm Wind
196	Soctum Hill	6/24/2011	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
197	Livingston	7/4/2011	50 kts. EG	0	0	$ 2,000.00	$ -	Thunderstorm Wind
198	Bellamy	3/2/2012	0.88 in.	0	0	$ -	$ -	Hail
199	Livingston	3/2/2012	1.00 in.	0	0	$ -	$ -	Hail
200	Cuba	3/2/2012	55 kts. EG	0	0	$ -	$ -	Thunderstorm Wind

201	York	3/2/2012	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
202	Cuba	3/2/2012	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
203	Panola	4/5/2012	1.50 in.	0	0	$ -	$ -	Hail
204	Boyd	5/30/2012	0.88 in.	0	0	$ -	$ -	Hail
205	Boyd	5/30/2012	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
206	Siloam	5/31/2012	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
207	Siloam	6/11/2012	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
208	Coatopa	6/30/2012	0.88 in.	0	0	$ -	$ -	Hail
209	Geiger	7/1/2012	1.00 in.	0	0	$ -	$ -	Hail
210	York	1/30/2013	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
211	Siloam	3/18/2013	1.00 in.	0	0	$ -	$ -	Hail
212	York	3/23/2013	0.88 in.	0	0	$ -	$ -	Hail
213	Brewersville	3/23/2013	1.75 in.	0	0	$ -	$ -	Hail
214	Brewersville	6/28/2013	55 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
215	Livingston	6/22/2014	1.00 in.	0	0	$ -	$ -	Hail
216	Cuba	7/2/2014	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
217	York Mallard Airport	12/23/2014	50 kts. EG	0	0	$ -	$ -	Thunderstorm Wind
Totals				**0**	**2**	**$ 4,152,200.00**	**$ 85,000.00**	

Wind Magnitude Definitions:

Measured Gust: 'MG', Estimated Gust: 'EG', Measured Sustained: 'MS', Estimated Sustained: 'ES'

Sumter County Severe Winter Storm Occurrences						
	Location	Date	Deaths	Injuries	Property Damage	Crop Damage
1	Sumter	1/6/1996	0	0	$10,000.00	$1,000.00
2	Sumter	2/1/1996	0	0	$15,000.00	$0.00
3	Sumter	12/23/1998	0	0	$0.00	$0.00
4	Sumter	1/27/2000	0	0	$20,000.00	$0.00
5	Sumter	1/9/2011	0	0	$0.00	$0.00

6	Sumter	1/28/2014	0	0	$0.00	$0.00
	Totals		0	0	$45,000.00	$1,000.00

Sumter County Tornado Past Occurrences*							
	Location	Date	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
1	Sumter County	3/23/1881	F2	0	0	N/A	N/A
2	Sumter County	11/6/1885	F2	0	20	N/A	N/A
3	Sumter County	3/3/1893	F3	0	3	N/A	N/A
4	Sumter County	12/17/1915	F2	0	5	N/A	N/A
5	Sumter County	5/5/1933	F3	4	27	N/A	N/A
6	Sumter County	2/12/1945	F4	11	63	N/A	N/A
7	Sumter County	12/12/1961	F2	0	0	$ 25,000.00	$ -
8	Sumter County	12/18/1967	F3	0	0	$ 25,000.00	$ -
9	Sumter County	3/16/1973	F1	0	0	$ 250,000.00	$ -
10	Sumter County	3/12/1976	F1	0	2	$ 25,000.00	$ -
11	Sumter County	12/3/1983	F1	0	0	$ 250,000.00	$ -
12	Sumter County	5/3/1984	F0	0	0	$ 2,500.00	$ -
13	Sumter County	2/15/1990	F0	0	0	$ -	$ -
14	Sumter County	11/22/1992	F2	0	0	$ 2,500,000.00	$ -
15	Geiger to Gainesville	4/5/1994	F1	0	0	$ 500,000.00	$ -
16	Coatopa	9/25/2005	F0	0	0	$ 22,000.00	$ -
17	Siloam	4/24/2010	EF0	0	0	$ -	$ -
18	Geiger	4/15/2011	EF3	0	0	$ 6,880,000.00	$ -
19	Bodka	4/15/2011	EF2	0	0	$ 2,070,000.00	$ -
20	Cuba	4/15/2011	EF2	0	0	$ 3,910,000.00	$ -
21	Geiger	4/27/2011	EF2	0	2	$ 1,000,000.00	$ -
22	Persimmon Grove	4/27/2011	EF2	0	0	$ 268,000.00	$ -
23	Persimmon Grove	11/16/2011	EF2	0	1	$ 200,000.00	$ -
24	Fair Oaks	1/23/2012	EF0	0	0	$ -	$ -
25	Parker	1/23/2012	EF0	0	0	$ -	$ -
26	Siloam	4/28/2014	EF1	0	0	$ -	$ -
27	Cuba	1/3/2015	EF0	0	0	$ -	$ -
28	Bodka	1/3/2015	EF1	0	0	$ -	$ -
	Totals:			15	123	$ 17,927,500.00	$ -

***Tornado information from Alabama Tornado Database:**
http://www.srh.noaa.gov/bmx/?n=tornadodb_main

Sumter County Wildfire Past Occurrences*			
Location	Year	Fires	Acres Burned
Sumter County	2010	15	83
Sumter County	2011	19	22
Sumter County	2012	11	57
Sumter County	2013	5	16
Sumter County	2014	18	173
Totals		68	351

***Wildfire Information provided by the Sumter County AFC Office**

APPENDIX 7

Shelter and Generator Sites

SUMTER COUNTY SHELTER SITES

Location Name	Latitude	Longitude
Webb Teaching Ministries	32°31.653N	88° 04.418W
Panola Community Center	32° 56.590N	88° 14.698W
Ebenezer Baptist Church-Family Life Center	32° 21.920N	88° 05.436W

SUMTER COUNTY GENERATOR SITES

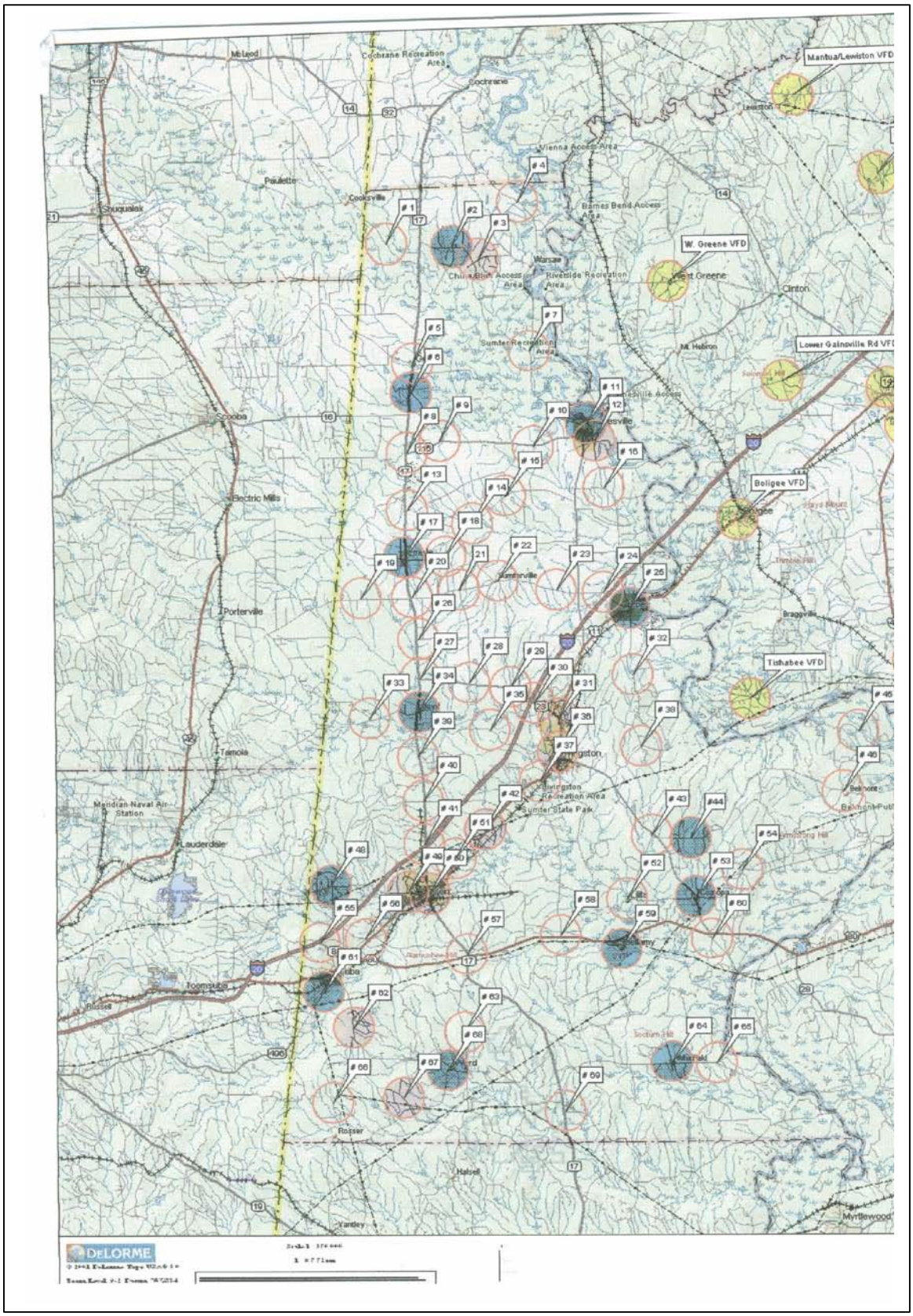
FACILITY	TYPE OF FACILITY	ADDRESS	CITY	GEN. SIZE	PHASING	VOLTAGE	LAT.	LONG
Happy Acres	Sewer Lift Station #1	Wren St.	York	28 KW	3	240	32° 29.197	88°19.097
York Fire Dept.	Fire Dept.	1022 4th Avenue	York	97 KW	3	240	32° 29.520	88° 17.396
Cuba V.F.D. #1	Fire Dept./Shelter	409 4th Street	Cuba	55 KW	1	240	32°, 25.762	88° 22.763
Cuba V.F.D. #2	Fire Dept./Shelter	308 4th Avenue	Cuba	55 KW	1	240	32° 25.671	88° 22.653
UWA Student Union	Shelter	Student Union Drive	Livingston	478 KW	3	240	32° 35.732	88° 11.149
Tower Road	Water Well #1	Tower Rd. Hwy 28W	Livingston	33KW	1	240	32° 37.075	88° 11.463
Livingston Police Dept. & EOC	EOC	502 Lafayette Street	Livingston	55KW	3	240	32° 34.826	88° 11.369
Livingston Volunteer and City Fire Dept.	Fire Dept./Shelter	1304 N. Washington Street	Livingston	110KW	3	240	32° 36.483	88° 10.976
Water Well #1	Water Well #1	US Hwy 11	Livingston	220KW	3	240	32° 39.632	88° 09.867
Pinson Hill	Sewer Lift Station	McConnell Avenue	Livingston	50KW	3	240	32° 34.812	88° 10.39
Coatopa/ Dug Hill V.F.D.	Fire Station	111 Mundy Rd	Coatopa	55KW	1	240	32° 29.188	88° 04.146
Green Valley	Sewer Lift Station	U.S. Hwy 11	Livingston	30 KW	1	120/277	32° 33.883	88° 12.848
South Industrial Park	Sewer Lift	Industrial Road	Livingston	20 KW	1	120/277	32° 33.933	88° 11.872

	Station							
Well Control Center	Sewer Lift Station	301 W. Main Street	Livingston	30KW	1	120/277	32° 35.086	88° 11.607
Happy Hollow-McKey Street	Sewer Lift Station	McKee Street	Livingston	10KW	3	120/277	32° 34.518	88° 11.225
Main Lagoon	Sewage Lagoon	Arrington Street	Livingston	30 KW	3	120/277	32° 34.510	88° 11.225
Physical Plant	Water Treatment	Hopkins Street	Livingston	30KW	3	240	32° 35.638	88° 11.408
Super Station	Lift Station	Hopkins Street	Livingston	55KW	3	120/277	32° 35.747	88° 11.954
Lake Village	Sewer Lift Station	114 Hwy 11 North	Livingston	55KW	3	120/277	32° 35.966	88° 11.528
Siloam Volunteer fire Department	Shelter/VFD	AL Hwy. 17 South	York	25KW	1	240	32° 35.966	88° 11.528
Whitfield V.F.D.	Over Flow Shelter	5947 Sumter 42	York	25KW	1	240	32° 21.920	88° 05.436
Ebenezer Missionary Baptist Church	Shelter	5947 Sumter 42	Whitfield		1	240	32° 31.911	88° 05.510
Ward V.F.D.	Shelter/VFD	Firehouse Road	Ward	50KW	1	240	32° 21.674	88° 16.728
Kinterbish Brunson V.F.D.	Shelter/VFD	5541 Kinterbish 10	Kinterbish	75KW	1	240	32° 23.559	88° 21.710
Morning Star V.F.D.	Shelter	Dove 2	Morning Star	50 KW	1	240	32° 29.455	88° 23.236
York City Hall	Municipal	607 2nd Avenue	York	32KW	3	120/277	32° 29.191	88° 17.766
Mold Wood Lift Station #8	Sewer Lift Station	Mallard Drive	York	20KW	3	240	32° 29.930	88° 16.894
Sewage Lagoon Lift Station #5	Sewer Lift Station		York	65KW	3	240	32° 29.146	88° 17.307
Nursing Home Lift Station #7	Sewer Lift Station		York	28KW	3	240	32° 30.513	88° 16.523
Tucker Lift Station #6	Sewer Lift Station		York	28KW	3	240	32° 30.693	88° 17.978
Car Wash Lift Station #3	Sewer Lift station		York	28KW	3	240	32° 29.104	88° 18.311
Bottom Line Lift Station #2	Sewer Lift Station		York	28KW	3	240	32° 29.024	88° 18.553
Water Treatment Plant	Water Treatment Plant		York			120/277	32° 28.982	88° 18.745
Frog Bottom	Sewer Lift		York	28KW	3	240	32° 28.888	88° 17.719

	Station #4							
Belmont/McDowell Volunteer Fire Dept	Fire Dept/Shelter	10835 Sumter Hwy 23	Coatopa	55KW	1	240	32° 33.637	87° 56.708
Belmont/McDowell Volunteer Fire Dept	Fire Dept/Shelter	10835 Sumter Hwy 23	Coatopa	55KW	1	240	32° 33.637	87° 56.708
Gainesville Volunteer Fire Dept	Fire Dept	161 Yankee Street	Gainesville	55KW	1	240	32° 49.378	88° 09.297
Panola Volunteer Fire Dept	Fire Dept	3620 Panola Prkwy Hwy 34	Panola	28KW	1	240	32° 56.590	88° 14.698
North Sumter Volunteer Fire Dept	Fire Dept	40464 Al Hwy 17	Geiger	28KW	3	240	32° 50.902	88° 18.460
Emelle Volunteer Fire Dept	Fire Dept	28 Park Street	Emelle	55KW	1	240	32° 43.840	88° 18.913
Emelle Town Hall	Shelter	123 Dailey Avenue	Emelle	110KW	3	240	32° 43.704	88° 18.911
BOYD Volunteer Fire Dept	Fire Dept	County Road 12 & 17	Boyd	28KW	1	240	32° 37.136	88° 18.306
Bellamy Volunteer Fire Dept	Fire Dept/Shelter	40 Cyder Road	Bellamy	58KW	1	240	32° 26.867	88° 07.966
Coatopa/Belmont Volunteer Fire Dept	Fire Dept	County Road 22	Livingston				32° 56.590	

APPENDIX 8

Proposed Siren Locations



Sumter County Siren Locations

Proposed Siren Locations-Sumter County

Siren #	Location	GPS	Siren Type	Coverage Area	Voice
1	Mt. Tabor Road	N32º 57.209' W88º 19.509'	Vortex	3.12 sq. miles	No
2	Panola VFD	N32º 57.045' W88º 16.171'	Vortex	3.12 sq. miles	No
3	North Sumter Jr. High	N32º 56.488' W88º 14.845'	WPS2810	3.12 sq. miles	Yes
4	CR 86 & CR 4	N32º 58.899' W88º 12.734'	Vortex	3.12 sq. miles	No
5	CR 32 & SR 17	N32º 52.101' W88º 18.302'	WPS2810	3.12 sq. miles	Yes
6	Geiger/N. Sumter VFD SR 17	N32º 50.824' W88º 18.400'	Vortex	3.12 sq. miles	No
7	CR 85 & CR 35	N32º 52.554' W88º 12.342'	Vortex	3.12 sq. miles	No
8	*SR 17 & SR 116	N32º 48.249' W88º 18.670'	WPS2810	3.12 sq. miles	Yes
9	*Old Bodka Rd & SR 116	N32º 48.743' W88º 16.977'	WPS2810	3.12 sq. miles	Yes
10	*Murry Mail Rt. Rd & SR 116	N32º 48.434' W88º 12.219'	WPS2810	3.12 sq. miles	Yes
11	*Gainesville VFD	N32º 49.423' W88º 9.497'	WPS2810	3.12 sq. miles	Yes
12	*Gainesville Head Start School	N32º 48.661' W88º 9.080'	WPS2810	3.12 sq. miles	Yes
13	*Dan Mitchell Rd & SR 17	N32º 45.777' W88º 18.719'	WPS2810	3.12 sq. miles	Yes
14	CR 74	N32º 45.015' W88º 15.655'	Vortex	3.12 sq. miles	No
15	Wide Rd & CR 17	N32º 46.333' W88º 13.696'	Vortex	3.12 sq. miles	No
16	Williams Rd & CR 21	N32º 46.642' W88º 8.650'	Vortex	3.12 sq. miles	No
17	*Emelle VFD	N32º 43.737' W88º 18.913'	WPS2810	3.12 sq. miles	Yes
18	CR 24 & CR 74	N32º 43.758' W88º	Vortex	3.12 sq. miles	No

		16.806'			
19	CR 20 & Soy Lane	N32º 41.987' W88º 21.142'	Vortex	3.12 sq. miles	No
20	*CR 20 & SR 17	N32º 42.007' W88º 18.521'	WPS2810	3.12 sq. miles	Yes
21	*CR 74 & CR 20	N32º 42.316' W88º 16.121'	Vortex	3.12 sq. miles	No
22	Sumterville Rd & CR 20	N32º 42.687' W88º 14.161'	Vortex	3.12 sq. miles	No
23	CR 20	N32º 42.275' W88º 11.173'	Vortex	3.12 sq. miles	No
24	*CR 20 @ I-20/59 Exit 23	N32º 42.151' W88º 8.772'	WPS2810	3.12 sq. miles	Yes
25	*Epes VFD	N32º 41.451' W88º 7.450'	WPS2810	3.12 sq. miles	Yes
26	*Looksookold Rd. & SR 17	N32º 40.215' W88º 18.223'	WPS2810	3.12 sq. miles	Yes
27	*SR 28 & SR 17	N32º 38.546' W88º 18.150'	WPS2810	3.12 sq. miles	Yes
28	*CR 74 & SR 28	N32º 38.340' W88º 15.654'	WPS2810	3.12 sq. miles	Yes
29	*Sumterville Rd & SR 28	N32º 38.134' W88º 13.549'	WPS2810	3.12 sq. miles	Yes
30	*SR 28 @ 1-20/59 Exit 17	N32º 37.455' W88º 12.349'	WPS2810	3.12 sq. miles	Yes
31	Livingston Jr. High School	N32º 36.775' W88º 11.125'	WPS2810	3.12 sq. miles	Yes
32	CR 21	N32º 38.629' W88º 7.307'	Vortex	3.12 sq. miles	No
33	CR 12	N32º 36.826' W88º 20.771'	Vortex	3.12 sq. miles	No
34	*Boyd VFD	N32º 37.104' W88º 18.223'	WPS2810	3.12 sq. miles	Yes
35	CR 12 (Carl Turk)	N32º 36.301' W88º 14.633'	Vortex	3.12 sq. miles	No
36	Livingston High School	N32º 35.3331' W88º 11.185'	WPS2810	3.12 sq. miles	Yes

Proposed Siren Locations-Sumter County

Siren #	Location	GPS	Siren Type	Coverage Area	Voice
37	Bennett Rd & US 11	N32º 34.076' W88º 12.102'	WPS2810	3.12 sq. miles	Yes
38	Leitch Rd & CR 21	N32º 35.560' W88º 6.919'	Vortex	3.12 sq. miles	No
39	*SR 17	N32º 35.158' W88º 18.292'	WPS2810	3.12 sq. miles	Yes
40	*Browns Towe Rd & SR 17	N32º 33.273' W88º 18.066'	WPS2810	3.12 sq. miles	Yes
41	*SR 17 @ I-20/59 Exit 8	N32º 31.419' W88º 18.029'	WPS2810	3.12 sq. miles	Yes
42	Sumter Academy	N32º 32.047' W88º 14.913'	WPS2810	3.12 sq. miles	Yes
43	CR 21 & SR 28	N32º 31.769' W88º 6.409'	Vortex	3.12 sq. miles	No
44	Belmont VFD	N32º 31.646' W88º 4.430'	Vortex	3.12 sq. miles	No
45	Pinetop Road	N32º 36.157' W87º 55.878'	Vortex	3.12 sq. miles	No
46	CR 22 & CR 23	N32º 33.603' W87º 56.685'	Vortex	3.12 sq. miles	No
47	Belmont Recreational Area	N32º 33.335' W87º 52.995'	Vortex	3.12 sq. miles	No
48	Morningstar VFD	N32º 29.648' W88º 22.802'	Vortex	3.12 sq. miles	No
49	York West End Elementary	N32º 29.359' W88º 18.870'	WPS2810	3.12 sq. miles	Yes
50	Sumter County High School	N32º 29.287' W88º 17.741'	WPS2810	3.12 sq. miles	Yes
51	Walker Ave & US 11	N32º 30.801' W88º 16.428'	WPS2810	3.12 sq. miles	Yes
52	Lilita Road	N32º 29.0502' W88º 7.684'	Vortex	3.12 sq. miles	No
53	Coatopa/Dug Hill VFD	N32º 29.122' W88º 4.191'	Vortex	3.12 sq. miles	No
54	Dug Hill Rd & CR 23	N32º 30.286' W88º	Vortex	3.12 sq. miles	No

		1.810'			
55	*SR 8 & 1-20/59 Exit 1	N32º 27.176' W88º 23.387'	WPS2810	3.12 sq. miles	Yes
56	Tims Rd & Old Hwy	N32º 27.351' W88º 21.044'	Vortex	3.12 sq. miles	No
57	SR 17 & US 80	N32º 26.661' W88º 15.870'	Vortex	3.12 sq. miles	No
58	CR 13 & US 80	N32º 27.495' W88º 11.085'	Vortex	3.12 sq. miles	No
59	Bellamy VFD	N32º 26.867' W88º 7.973'	Vortex	3.12 sq. miles	No
60	SR 28 & US 80	N32º 27.320' W88º 3.383'	Vortex	3.12 sq. miles	No
61	Siloam VFD	N32º 25.023' W88º 23.193'	Vortex	3.12 sq. miles	No
62	Kinterbish Jr. High School	N32º 23.457' W88º 21.655'	WPS2810	3.12 sq. miles	Yes
63	Community Center	N32º 23.262' W88º 15.983'	Vortex	3.12 sq. miles	No
64	Whitfield VFD	N32º 21.964' W88º 5.430'	Vortex	3.12 sq. miles	No
65	CR 42	N32º 21.923' W88º 3.160'	Vortex	3.12 sq. miles	No
66	CR 5 & Jarman Rd	N32º 20.192' W88º 20.733'	Vortex	3.12 sq. miles	No
67	Kinterbish #2	N32º 20.409' W88º 19.111'	Vortex	3.12 sq. miles	No
68	Ward VFD	N32º 21.603' W88º 16.855'	Vortex	3.12 sq. miles	No
69	CR 15 & SR 17	N32º 19.832' W88º 10.858'	Vortex	3.12 sq. miles	No
	*** Denotes Traveling routes for Hazardous material trucks. These areas should use the voice and siren system similar to those used in Calhoun County, AL.**				