

Southeast Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan

A HAZARD MITIGATION PLAN FOR AEMA REGION B COUNTIES:
BARBOUR, BUTLER, COFFEE, COVINGTON, GENEVA, HENRY,
HOUSTON, AND ELIGIBLE LOCAL JURISDICTIONS

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Section 1 - Hazard Mitigation Plan Introduction

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1.1 Plan Scope

The Southeast Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan is a plan that details the multitude of hazards that affect the Alabama Emergency Management Agency (AEMA) Region B area. This region includes Barbour, Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston, and Pike counties and the municipalities, as well as other jurisdictions, within these counties. The first version of this plan covers Barbour, Butler, Coffee, Covington, Geneva, Henry, and Houston counties. Crenshaw, Dale, and Pike counties will be inserted in future updates. This plan fulfills the requirements set forth by the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 requires counties to formulate a hazard mitigation plan in order to be eligible for mitigation grants made available by the Federal Emergency Management Agency (FEMA).

Each of the ten counties in AEMA Region B has an existing multi-jurisdictional hazard mitigation plan. This plan compiles information from each of those existing plans and documents the incorporation of hazard mitigation objectives into the region, as a whole. The AEMA Region B has a diversity of economical and physical development, but many of the hazards affecting the region have similar impacts throughout the area. A regional hazard mitigation plan is able to encapsulate these similarities in risk and vulnerability impact, with regional stakeholders being able to discuss mitigation techniques for these similar impacts.

1.2 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. These plans should be approved by FEMA and updated every five years.

1.3 Funding

Funding for the Southeast Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan was made available through the Hazard Mitigation Grant Program (HMGP), under Disaster Recovery Declaration 1971 (DR-1971). Supplemental funding was supplied by the county commissions of Barbour, Butler, Coffee, Covington, Geneva, Henry, and Houston counties, and the Southeast Alabama Regional Planning and Development Commission (SEARP&DC).

1.4 Purpose

The Southeast Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan is an effort to evaluate and identify all prioritized hazards which may affect AEMA Region B. It presents mitigation strategies that address the hazards identified. This plan is only one of many steps jurisdictions in Southeast Alabama will take to protect the welfare of residents by achieving a safer environment for its residents.

Section 2 - Regional Profile

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- 2.1 Background
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2.1 Background

The planning area is Alabama Emergency Management Agency (AEMA) Region B, one of the seven emergency management divisions within the state. AEMA Region B is located in southeastern Alabama (Figure 2.1). AEMA Region B is comprised of the following ten counties: Barbour, Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston, and Pike, and 70 municipalities within those counties. This version of the multi-jurisdictional hazard mitigation plan covers seven of the ten AEMA Region B counties and their jurisdictions (Barbour, Butler, Coffee, Covington, Geneva, Henry, and Houston). The additional three counties and their jurisdictions (Crenshaw, Dale, and Pike) in the AEMA Region B are currently covered by their own hazard mitigation plan and will be fully included in a subsequent update. Information from the entire AEMA Region B is included in this profile.

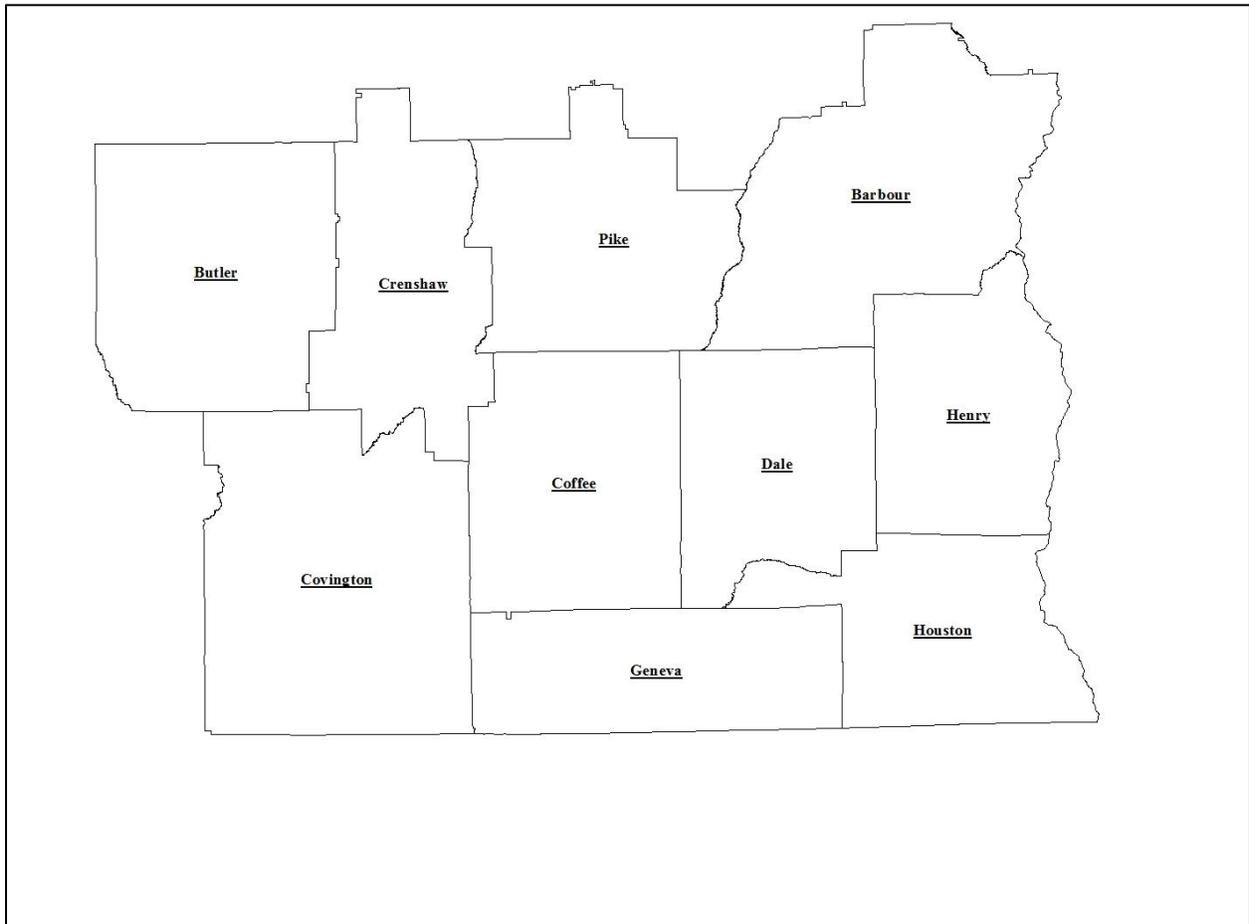


Figure 2.1 AEMA Region B

Covington County is the largest county by area with 1,030 square miles. The smallest county is Dale County with 561 square miles. The total land area of the region is 6,929 square miles, which is slightly less than 14% of the state's area, and is presented by county below (Table 2.1).

Table 2.1: Total Area by County

County	Total Area
Barbour County	885 square miles
Butler County	777 square miles
Coffee County	679 square miles
Covington County	1,030 square miles
Crenshaw County	609 square miles
Dale County	561 square miles
Geneva County	574 square miles
Henry County	562 square miles
Houston County	580 square miles
Pike County	672 square miles

Source: U.S. Census Bureau

The entire AEMA Region B area is within the East Gulf Coastal Plain physiographic region. Though the designation of a plain commonly refers to a flat landscape, much of the region consists of a mixture of rounded hills and cuervas (a ridge with steep slopes on one side and gentle slopes on the other), with floodplains along the rivers and streams of the area.

There are three main river systems that flow through the region: the Chattahoochee, Choctawhatchee, and Conecuh rivers. The Chattahoochee River flows mainly north-south, separating Barbour, Henry, and Houston counties from Georgia. The Choctawhatchee River flows generally south-southwest from two forks in Barbour County through Dale, Houston, and Geneva counties into Florida. The Pea River is a major tributary to the Choctawhatchee that flows roughly parallel approximately 25 miles to the west, beginning in Bullock County and forming the border between Barbour and Pike counties into Dale, Coffee, and Geneva counties until it empties into the Choctawhatchee at the “Junction” in Geneva. Both the Choctawhatchee and Pea rivers have caused much of the historical riverine flooding issues within the region. The Conecuh River, like the Pea, forms in Bullock County and flows southwest through Pike, Crenshaw, and Covington counties into Florida. The Conecuh River, in Covington County, has two major dams, Gantt and Point ‘A’, which provides hydroelectric generation and recreation opportunities. Occasional damaging flooding has also occurred along the Conecuh, similar to the Choctawhatchee and Pea, though affecting less developed areas.

2.2 Demographics

According to the 2010 Census, the total population of AEMA Region B was 378,812 people, representing approximately eight percent (8%) of Alabama (Table 2.1). Houston County, in the southeastern corner of the region and state, is the most populous county (101,547), while Crenshaw County in the northwestern portion of the region is the least populous county (13,906). Population counts from the U.S. Census from 2000, and 2010 for each jurisdiction are below (Table 2.2).

Table 2.2: Regional Jurisdiction Population

Jurisdiction	2000 Census Population	2010 Census Population	% Change
Barbour County	29,038	27,457	-5.4%
Town of Baker Hill	-	279	-
Town of Blue Springs	121	96	-20.7%
City of Clayton	1,475	3,008	103.9%
City of Clio	2,206	1,399	-36.6%
City of Eufaula	13,908	13,137	-5.5%
Town of Louisville	612	519	-15.2%
Butler County	21,399	20,947	-2.1%
City of Georgiana	1,737	1,738	0.1%
City of Greenville	7,228	8,135	12.5%
Town of McKenzie	642	522	-18.7%
Coffee County	43,615	49,948	14.5%
City of Elba	4,185	3,940	-5.9%
City of Enterprise (part)	20,993	26,139	24.5%
Town of Kinston	602	540	-10.3%
Town of New Brockton	1,250	1,146	-8.3%
Covington County	37,631	37,765	0.4%
City of Andalusia	8,794	9,015	2.5%
Town of Babbie	627	603	-3.8%
Town of Carolina	248	297	19.8%
City of Florala	1,964	1,980	0.8%
Town of Gantt	241	222	-7.9%
Town of Heath	249	254	2.0%
Town of Horn Hill	235	228	-3.0%
Town of Libertyville	106	117	10.4%
Town of Lockhart	548	516	-5.8%
Town of Onycha	208	184	-11.5%
City of Opp	6,607	6,659	0.8%
Town of Red Level	556	487	-12.4%
Town of River Falls	616	526	-14.6%
Town of Sanford	269	241	-10.4%
Crenshaw County	13,665	13,906	1.8%
Town of Brantley	920	809	-12.1%
Town of Dozier	391	329	-15.9%
Town of Glenwood	191	187	-2.1%
City of Luverne	2,635	2,800	6.3%
Town of Petrey	63	58	-7.9%
Town of Rutledge	476	467	-1.9%

Jurisdiction	2000 Census Population	2010 Census Population	% Change
Dale County	49,129	50,251	2.3%
Town of Ariton	772	764	-1.0%
Town of Clayhatchee	501	589	17.6%
City of Daleville	4,653	5,295	13.8%
City of Dothan (part)	650	887	36.5%
City of Enterprise (part)	185	423	128.6%
Town of Grimes	459	558	21.6%
Town of Level Plains	1,544	2,085	35.0%
Town of Midland City	1,703	2,344	37.6%
Town of Napier Field	404	354	-12.4%
Town of Newton	1,708	1,511	-11.5%
City of Ozark	15,119	14,907	-1.4%
Town of Pinckard	667	647	-3.0%
Geneva County	25,764	26,790	4.0%
Town of Black	202	207	2.5%
Town of Coffee Springs	251	228	-9.2%
City of Geneva	4,388	4,452	1.5%
City of Hartford	2,369	2,624	10.8%
Town of Malvern	1,215	1,448	19.2%
City of Samson	2,071	1,940	-6.3%
City of Slocomb	2,052	1,980	-3.5%
City of Taylor (part)	10	7	-30.0%
Henry County	16,310	17,302	6.1%
City of Abbeville	2,987	2,688	-10.0%
City of Dothan (part)	5	5	0.0%
Town of Haleburg	108	103	-4.6%
City of Headland	3,523	4,510	28.0%
Town of Newville	553	539	-2.5%
Houston County	88,787	101,547	14.4%
City of Ashford	1,853	2,148	15.9%
Town of Avon	466	543	16.5%
Town of Columbia	804	740	-8.0%
Town of Cottonwood	1,170	1,289	10.2%
Town of Cowarts	1,546	1,871	21.0%
City of Dothan (part)	57,082	64,604	13.2%
Town of Gordon	408	332	-18.6%
City of Kinsey	1,796	2,198	22.4%
Town of Madrid	303	350	15.5%
Town of Rehobeth	993	1,297	30.6%
City of Taylor	1,888	2,368	25.4%

Jurisdiction	2000 Census Population	2010 Census Population	% Change
Town of Webb	1,298	1,430	10.2%
Pike County	29,605	32,899	11.1%
Town of Banks	224	179	-20.1%
City of Brundidge	2,341	2,076	-11.3%
Town of Goshen	300	266	-11.3%
City of Troy	13,935	18,033	29.4%

Source: U.S. Census Bureau (2000 and 2010)

Based on the 2010 U.S. Census, the median age for residents within the counties of AEMA Region B ranges from 31 to 43 years. Pike County’s median age of 31 years is much lower than the rest of the region, likely due to the impact of Troy University. Racial and ethnic characteristics from 2010 by county are presented below (Table 2.3).

Table 2.3: Racial and Ethnic Demographics by County

County	White %	Black %	Other %	Hispanic % (*)
Barbour County	48.0%	46.9%	5.1%	5.1%
Butler County	54.4%	43.4%	2.2%	0.9%
Coffee County	74.7%	16.7%	8.6%	6.4%
Covington County	84.8%	12.5%	2.7%	1.3%
Crenshaw County	72.6%	23.4%	4.0%	1.5%
Dale County	74.1%	19.3%	6.6%	5.6%
Geneva County	86.3%	9.5%	4.2%	3.4%
Henry County	68.6%	28.6%	2.8%	2.2%
Houston County	70.0%	25.8%	4.2%	2.9%
Pike County	58.2%	36.6%	5.2%	2.2%

Source: U.S. Census Bureau (2010)

* Hispanic population may be of any race.

According to the U.S. Census Bureau’s 2008-2012 Five-Year Estimates, there are 174,628 housing units in the region. Housing information estimates, including more vulnerable housing such as mobile homes and aging housing, are presented by county in Table 2.4 below.

Table 2.4: Housing Demographics by County

County	Housing Units	Mobile Homes (%)	Housing 35+ Years (%)
Barbour County	11,878	25.8%	53.4%
Butler County	9,973	22.0%	48.0%
Coffee County	22,384	14.7%	44.6%
Covington County	18,821	18.0%	61.3%
Crenshaw County	6,742	29.2%	55.5%
Dale County	22,700	19.5%	51.7%
Geneva County	12,670	24.5%	58.0%
Henry County	8,878	22.8%	50.5%
Houston County	45,310	15.5%	52.7%
Pike County	15,272	25.9%	48.2%

Source: U.S. Census Bureau (2008-2012)

Unemployment rates for counties in AEMA Region B vary. The most recent unemployment average rates ranged from 11.5% (Barbour County) to 6.7% (Coffee County) in 2014 through August. Table 2.5 presents August 2014 unemployment rate by county.

Table 2.5: Average Unemployment Rates by County

County	Unemployment Rate (2014 through August)
Barbour County	11.5%
Butler County	8.8%
Coffee County	6.7%
Covington County	7.7%
Crenshaw County	6.8%
Dale County	7.8%
Geneva County	6.9%
Henry County	7.3%
Houston County	6.9%
Pike County	7.0%

Source: Alabama Department of Labor (2014)

2.3 Business and Industry

AEMA Region B supports a wide variety of industrial and commercial stakeholders. The region is a strategic location that is served by several federal and state highways, multiple railroads and motor freight lines, an inland waterway system, and a regional airport. The region is home to a large, widely diversified economic base, with automotive, aviation, textile, and poultry manufacturing facilities, Fort Rucker (the Home of Army Aviation), widespread agricultural production, higher education, medical and health services, nuclear power production, and retail trade. Overall within the region, over 75% of employment is within services, manufacturing, government, and retail trade sectors of the economy.

Table 2.6: Major Employers (over 1,000 employees)

Employer (County)	Product	# Employees
Army Fleet Support (Coffee/Dale)	Aircraft Maintenance	3,833
Southeast Alabama Medical Center (Houston)	Health Care	2,113
Dothan City and Houston County Schools (Houston)	School Systems	1,973
Troy University (Pike)	Higher Education	1,342
Equity Group – Eufaula Division (Barbour)	Poultry Processing	1,330
Shaw Industries (Covington)	Carpet Manufacturer	1,300
Wayne Farms (Coffee)	Poultry Processing	1,250
Flowers Hospital (Houston)	Health Care	1,100

Source: Economic Development Partnership of Alabama (EDPA)

The aforementioned industries are susceptible to the same natural hazards as the remainder of the region, e.g. high wind events and potential flooding. The economic impact of losing any industry is directly related to the size/type of business and the duration/severity of the loss.

2.4 Infrastructure

Transportation

There are several major highways that span across the region. The only interstate highway traversing the region is I-65 that crosses Butler County from northeast toward Montgomery to southwest toward Mobile. U.S. Highways 29, 31, 231, 331, and 431 cross the region roughly from north to south and U.S. Highways 82 and 84 cross the region from east to west. There are also several major state highways in the region that provide important links between communities.

There are several public airports located in the region. The only commercial airport is Dothan Regional Airport, located in Dale County, which offers several connecting flights a day to Atlanta. Other public airports in the region include Abbeville Municipal Airport (Henry County), South Alabama Regional Airport (Covington County), Clayton Municipal Airport (Barbour County), Carl Folsom Airport (Elba, Coffee County), Enterprise Municipal Airport (Coffee County), Weedon Field (Eufaula, Barbour County), Florala Municipal Airport (Covington County), Geneva Municipal Airport (Geneva County), Mac Crenshaw Municipal Airport (Greenville, Butler County), Headland Municipal Airport (Henry County), Blackwell Field (Ozark, Dale County), Troy Municipal Airport (Pike County), Frank Sikes Airport (Luverne, Crenshaw County), and Logan Field (Samson, Geneva County).

Several rail lines also traverse the region. There are two Class I rail routes, both by CSX Transportation. One runs approximately northwest to southeast, through Pike, Dale, and Houston counties, and the other runs through Butler County, northeast to southwest. There are also several Class III railroads, including The Bay Line Railroad, Chattahoochee Bay Railroad, Conecuh Valley Railway, Georgia Southwestern Railroad, Wiregrass Central Railway, and Three Notch Railway.

Utilities:

Electrical service in AEMA Region B is provided by Alabama Power and several electrical cooperatives and municipal authorities. Alabama Power serves scattered areas throughout the region. PowerSouth Electric Cooperative has five local member cooperatives that serve large portions of the region: Covington EC, Pea River EC, Pioneer EC, South Alabama EC, and Wiregrass EC. There are also several municipal electric systems, including Andalusia, Brundidge, Dothan, Elba, Opp, and Troy

Water and sewer service is provided by a mixture of municipal and county utility authorities. Most populated areas have public water service, with only a few isolated areas not connected. Most unincorporated areas rely on septic systems for sewer disposal. Natural gas service for much of the region is provided by the Southeast Alabama Gas District. Geneva County has its own natural gas distribution system.

2.5 Land Use and Development Trends

Southeast Alabama is a primarily rural region with mostly small towns, agricultural and silvicultural uses, and Fort Rucker with other scattered military zones that comprise the planning area. The largest developed urban area in the region is Dothan with a population of over 65,000, which has been a moderately growing metropolitan area centered in northwestern Houston County. Dothan is a regional economic engine that attracts people from Southeast Alabama and surrounding areas to engage in commercial, medical, and other activities. Enterprise is the second largest city in the region with over 26,000 people, and has been a fast developing area. Bedroom communities near both Dothan and Enterprise in Coffee, Dale, Henry, and Houston counties have grown over the past couple of decades.

Troy, Ozark, and Eufaula all have population between 10,000 and 20,000. Troy University, the major regional university, has its main campus in Troy, which has contributed to the city's growth. Municipalities with a population between 5,000 and 10,000 include Andalusia, Daleville, Greenville, and Opp.

Overall, the AEMA Region B area grew over six percent (6%) from 2000 through 2010. Most of this increased growth occurred within and adjacent to Dothan and Enterprise, with the exception of Troy. These areas also produced additional urban built developments. The moderate population growth in these areas presents an enhancement of risk and vulnerability to natural hazard events, as hazard events that occur have more opportunity to affect higher density areas and destroy larger exposure of structures.

Each community in the region, especially the faster growing areas, should work to focus growth in compatible areas that are not susceptible to flooding and other location-specific hazards in their long range development plans.

Section 3 – Planning Process

This Planning Process section of the Plan addresses requirements of Section 201.6(c)(1) through providing 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.

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- 3.1 Multi-Jurisdictional Plan Adoption
- 3.2 Multi-Jurisdictional Plan Participation
- 3.3 Hazard Mitigation Planning Process
- 3.4 Public and Other Stakeholder Involvement
- 3.5 Integration with Existing Plans
- 3.6 Capability Assessment

3.1 Multi-Jurisdictional Plan Adoption

Each participating jurisdiction will adopt the plan when it is deemed “approvable pending adoption” by the Federal Emergency Management Agency (FEMA). Eligible jurisdictions include regional planning councils and local governing bodies, including municipal councils, county commissions, and local school districts.

3.2 Multi-Jurisdictional Planning Participation

Each eligible local jurisdiction in Barbour, Butler, Coffee, Covington, Geneva, Henry, and Houston counties provided sufficient participation in the development of the regional hazard mitigation plan. Local jurisdictions within the region participated according to the standards set forth by the Regional Hazard Mitigation Planning Committee.

The three other counties (Crenshaw, Dale, and Pike) located within AEMA Region B provided background information as part of the planning process. As their local hazard mitigation plans get closer to expiring, these counties and their jurisdictions will be fully integrated within the regional hazard mitigation plan. Most likely, this will be accomplished through a smaller regional plan encompassing these three counties. However, the direction of this process will be discussed with the Division Coordinator and local EMA directors.

3.3 Hazard Mitigation Planning Process

The AEMA Region B Multi-Jurisdictional Hazard Mitigation Plan was developed through interaction between AEMA Region B county EMA directors, the AEMA Region B Coordinator, and the Southeast Alabama Regional Planning and Development Commission (SEARP&DC), which comprised the Regional Hazard Mitigation Planning Committee.

Members of the Regional Hazard Mitigation Planning Committee developed county-level planning subcommittees, primarily based from existing Local Emergency Planning Committees (LEPCs). The review of previous local hazard mitigation plans and development of the requirements for participating within the regional planning process was developed by the Regional Hazard Mitigation Planning Committee. The Committee decided that while actual physical presence at the meetings was preferred, it would not be a requirement.

Each jurisdiction (Table 3.1) was expected to participate in the planning update process by:

- Attending scheduled meetings, or if unable to attend, send a designee or make themselves available to discuss the agenda
- Represent their jurisdiction’s interests, including gathering information and providing feedback
- Provide an assessment of prioritized projects that have been completed or are ongoing, or changes to prioritization
- Adopt the Hazard Mitigation Plan

Discussions with the Regional Hazard Mitigation Planning Committee led to county-level meetings with each jurisdiction to review the Risk, Vulnerability, and Mitigation components of the Hazard Mitigation Plan. During spring and summer 2014, packets of information containing planning materials were sent to each jurisdiction for review prior to county-level LEPC or

stakeholder meetings that were held in 2014. The scope of the meetings was to assess the progress of each jurisdiction’s mitigation goals and objectives and to find out recent hazard events and how they affected each jurisdiction. From these meetings, hazard profiles were consolidated and updated for the regional scope of the plan and risk analysis was conducted using historical and local documentation. Plan drafts were distributed to stakeholders and local jurisdictions for review and the plan draft was discussed in the realm of public meetings before submission to AEMA and FEMA.

Table 3.1 AEMA Region B Steering Committee

Jurisdiction	Primary Contact	Attended Meetings	Provided Written Comments	In-Person or Phone Consultation
Barbour County	David Logan, EMA Director	X	X	X
Town of Baker Hill	Aaron Grubbs, Mayor		X	X
Town of Blue Springs	Allen Knight, Mayor		X	X
City of Clayton	Lisa Beasley, City Clerk		X	X
City of Clio	Vivian Hagler, City Clerk		X	X
City of Eufaula	Tim Brannon, Public Works Director	X	X	X
Town of Louisville	Janice Clark, Town Clerk		X	X
Barbour County Schools	David Hobdy, Superintendent		X	X
Eufaula City Schools	Eddie Tyler, Superintendent		X	X
Butler County	Shirley Sandy, EMA Director	X	X	X
City of Georgiana	Ann Browder, City Clerk	X	X	
City of Greenville	Chad Phillips, Fire Chief	X	X	
Town of McKenzie	Tina Powell, Town Clerk		X	X
Butler County Schools	Amy Bryan, Superintendent	X	X	
Coffee County	Larry Walker, EMA Director	X	X	X
City of Elba	Mickey Murdock, Mayor	X	X	
City of Enterprise	Kenneth Boswell, Mayor	X	X	
Town of Kinston	Bill Mullins, Mayor	X	X	
Town of New Brockton	Kathy Holley, Mayor	X	X	
Coffee County Schools	Don McPherson, Superintendent	X	X	
Elba City Schools	Chresal Threadgill, Superintendent	X	X	
Enterprise City Schools	Camille Wright, Superintendent	X	X	

Jurisdiction	Primary Contact	Attended Meetings	Provided Written Comments	In-Person or Phone Consultation
Covington County	Susan Harris, EMA Director	X	X	X
City of Andalusia	Andy Wiggins, Director of Planning and Development		X	X
Town of Babbie	Chris Caldwell, Mayor		X	X
Town of Carolina	Betty Wilhite, Mayor		X	X
City of Florala	Chris Jackson, Public Works / Utilities Director	X	X	
Town of Gantt	Melissa Grissett, Mayor	X	X	
Town of Heath	Judy Baker, Mayor		X	X
Town of Horn Hill	Rowayne Harper, Mayor		X	X
Town of Libertyville	Byron Dozier, Mayor		X	X
Town of Lockhart	Eugene Birge, Mayor	X	X	
Town of Onycha	Jerry Smith, Mayor		X	X
City of Opp	Jason Bryan, City Planner		X	X
Town of Red Level	Willie J. Hendrix, Mayor	X	X	
Town of River Falls	Patricia Gunter, Mayor		X	X
Town of Sanford	Chris Thomasson, Mayor		X	X
Andalusia City Schools	Ted Watson, Superintendent		X	X
Covington County Schools	Shannon Driver, Superintendent		X	X
Opp City Schools	Michael Smithart, Superintendent		X	X
Geneva County	Margaret Mixon, EMA Director	X	X	X
Town of Black	Debi Showers, Mayor		X	X
Town of Coffee Springs	Barbara Shirah, Mayor	X	X	
City of Geneva	Philip Carter, Mayor	X	X	
City of Hartford	Jeff Sorrells, Mayor	X	X	
Town of Malvern	Tom Vickers, Mayor		X	X
City of Samson	Earl Johnson, Water Operator	X	X	
City of Slocomb	Rob Hinson, Mayor		X	X
Geneva County Schools	Becky Birdsong, Superintendent		X	X
Geneva City Schools	Ricky Bennett, Superintendent		X	X

Jurisdiction	Primary Contact	Attended Meetings	Provided Written Comments	In-Person or Phone Consultation
Henry County	Ronnie Dollar, EMA Director	X	X	X
City of Abbeville	Pam Ward, City Clerk	X	X	
Town of Haleburg	Roger Money, Mayor		X	X
City of Headland	Ray Marler, Mayor		X	X
Town of Newville	Kent Whiddon, Mayor		X	X
Henry County Schools	Chris Padget, Professional Development	X	X	
Houston County	Steve Carlisle, EMA Director	X	X	X
City of Ashford	Jonathan Grecu, Mayor	X	X	
Town of Avon	Timothy Prevatt, Mayor	X	X	
Town of Columbia	Lanny Lancaster, Mayor	X	X	
Town of Cottonwood	Ken Hamilton, Mayor		X	X
Town of Cowarts	Randy Roland, Mayor	X	X	
City of Dothan	Michael West, City Manager		X	X
Town of Gordon	Albert Lowe, Mayor	X	X	
City of Kinsey	Jason Reneau, Mayor	X	X	
Town of Madrid	Elaine Williams, Mayor	X	X	
Town of Rehobeth	Joe P. Collins, Mayor	X	X	
City of Taylor	Larry Whiddon, Mayor	X	X	
Town of Webb	Rex Ard, Mayor	X	X	
Dothan City Schools	Todd Weeks, Interim Superintendent		X	X
Houston County Schools	Tim Pitchford, Superintendent		X	X

3.4 Public and Other Stakeholder Involvement

Opportunity for public comment was provided for in multiple ways. All county stakeholder meetings were open to the public, advertised public meetings were held for review of the plan draft and will be held again prior to adoption of the approvable plan, and plan drafts were available for review at municipal offices, as well as being posted on SEARP&DC’s website. The public was informed of the hazard mitigation plan and invited and encouraged to attend planning meetings through various media announcements, including but not limited to: newspaper notices and advertisements, radio advertisements, open meeting websites, local EMA website postings, community events, and local postings. Documentation of public participation is also included in Appendix B.

The Southeast Alabama Regional Planning and Development Commission (SEARP&DC) and local EMA directors consulted with multiple stakeholders in formation of the plan. The U.S. Army Corps of Engineers and PowerSouth Electrical Cooperative provided information concerning dam failure and mitigation. The Alabama Forestry Commission provided

information pertaining to wildfire information. The Geological Survey of Alabama (GSA) was consulted for landslide and land subsidence hazard information. Concepts of the Plan update were discussed with regional partners. Local offices of the Alabama Department of Public Health were involved in multiple planning meetings. Private sector entities, such as local chambers of commerce and the American Red Cross were also instrumental in supplying background data for the regional plan.

3.5 Integration with Existing Plans

Existing plans were consulted upon drafting of the Regional Hazard Mitigation Plan to gauge understanding of the region's capacity for hazard mitigation. Plans reviewed include:

Alabama State Hazard Mitigation Plan (2013 Update):

The State Hazard Mitigation Plan was consulted to assist with consistency of information within the regional plan, including items within the Risk Assessment and local capabilities.

Local Hazard Mitigation Plans:

Each of the ten counties in AEMA Region B has previously developed local hazard mitigation plans. These plans were reviewed for consistency of information within the regional plan.

SEARP&DC Comprehensive Economic Development Strategy (CEDS) (2013 Update):

The SEARP&DC Regional CEDS was consulted to ensure the Hazard Mitigation Plan is consistent with the economic development strategy for the seven-county Southeast Alabama region.

SCAEDD Comprehensive Economic Development Strategy (CEDS) (2013 Update): The SCAEDD Regional CEDS was consulted to ensure the Hazard Mitigation Plan is consistent with the economic development strategy for the South Central Alabama region that includes three counties (Butler, Crenshaw, and Pike) within AEMA Region B.

Emergency Operations Plans

Each county in AEMA Region B has an Emergency Operations Plan (EOP) that is utilized in an emergency situation. The plans summarize various hazards and provide direction for emergency personnel in disaster situations. These plans complement the hazard mitigation plan, but do not necessarily cover the same material.

Alabama Drought Management Plan (2013 Update)

The Alabama Drought Management Plan was studied to provide background information of drought impacts on the planning area.

Other sources utilized for data incorporation are listed in the Section 4 – Risk Assessment.

3.6 Capability Assessment

A capability assessment examines the ability of each jurisdiction to implement a comprehensive mitigation strategy through examining existing programs, regulations, resources, and practices. This determination allows a jurisdiction to assess whether mitigation actions are feasible, due to

financial resources, political climate, administrative capacity, and other jurisdictional capabilities.

The Alabama Emergency Management Agency (AEMA) Region B is a ten-county region composed of 70 municipalities with a myriad of governmental powers. The specific planning area for the Regional Hazard Mitigation Plan is seven counties with 50 municipalities. All county governments are governed by an elected commission. Most municipalities have a Mayor/Council form of government, with the exception of Dothan, which is a mayor-commission-manager form of government.

Land use planning capacity in much of the region is limited, due to the lack of land use planning and zoning authority in unincorporated areas, with the exception of floodplain management and subdivision regulations. Also, many small municipalities have limited planning and building enforcement function, due to fiscal constraints and lack of expertise, and choose not to implement land use, zoning, or code enforcement mechanisms. Most regional jurisdictions participate in the National Flood Insurance Program (NFIP) and maintain compliance with applicable regulations. Local governments are authorized to levy a certain level of taxes, license fees, and permitting fees, apply for state and federal funding, and issue and sell bonds for debt financing. However, in many cases, the levy of taxes requires either permission from the Alabama Legislature, or a vote of the public, which can be difficult for increasing tax revenue.

A review of capabilities listed in each local multi-jurisdictional hazard mitigation plan and the Alabama State Hazard Mitigation Plan (April 2013 Update) provided an inventory of existing resources available to local jurisdictions. During county-level LEPC or stakeholder meetings, attendees were asked to review those resources in order to provide updated capabilities for their jurisdictions.

The following table (3.2) provides a summary of local plans, ordinances, and programs currently in place, or being developed within jurisdictions in Southeast Alabama. A “Yes” (Y) indicates the item is currently in place and being implemented. A “No” (N) indicates the items is not in place or being implemented. An asterisk (*) indicates the item is currently being developed for future implementation.

Table 3.2: Relevant Plans, Ordinances, and Programs

Jurisdiction	Zoning Ordinance	Code Enforcement	Recent Master Plan	Certified Floodplain Manager	NFIP Participation
Barbour County	N	N	N	N	Y
Town of Baker Hill	Y	N	N	N	N
Town of Blue Springs	N	N	N	N	Y
City of Clayton	Y	N	N	N	Y
City of Clio	Y	N	N	N	Y
City of Eufaula	Y	Y	Y	N	Y
Town of Louisville	N	N	N	N	Y
Butler County	N	N	N	N	Y
City of Georgiana	Y	N	N	N	Y
City of Greenville	Y	Y	Y	N	Y
Town of McKenzie	N	N	N	N	Y
Coffee County	N	N	N	N	Y
City of Elba	Y	Y	*	Y	Y
City of Enterprise	Y	Y	Y	Y	Y
Town of Kinston	N	N	N	N	Y
Town of New Brockton	Y	N	N	N	Y
Covington County	N	N	N	N	Y
City of Andalusia	Y	Y	Y	N	Y
Town of Babbie	N	N	N	N	N
Town of Carolina	N	N	N	N	N
City of Florala	Y	Y	Y	N	Y
Town of Gantt	N	N	N	N	Y
Town of Heath	N	N	N	N	N
Town of Horn Hill	N	N	N	N	N
Town of Libertyville	N	N	N	N	N
Town of Lockhart	N	N	N	N	N
Town of Onycha	N	N	N	N	N
City of Opp	Y	Y	Y	N	Y
Town of Red Level	N	N	N	N	Y
Town of River Falls	Y	N	N	N	Y
Town of Sanford	N	N	N	N	N
Geneva County	N	N	N	N	Y
Town of Black	N	N	N	N	Y
Town of Coffee Springs	N	N	N	N	Y

Jurisdiction	Zoning Ordinance	Code Enforcement	Recent Master Plan	Certified Floodplain Manager	NFIP Participation
City of Geneva	Y	Y	N	N	Y
City of Hartford	Y	Y	N	N	Y
Town of Malvern	N	N	N	N	Y
City of Samson	Y	Y	N	N	Y
City of Slocomb	Y	Y	Y	N	Y
Henry County	N	N	N	N	Y
City of Abbeville	Y	Y	Y	N	Y
Town of Haleburg	N	N	N	N	N
City of Headland	Y	Y	Y	N	Y
Town of Newville	N	N	N	N	Y
Houston County	N	N	N	Y	Y
City of Ashford	Y	Y	N	N	Y
Town of Avon	N	N	N	N	Y
Town of Columbia	N	N	N	N	Y
Town of Cottonwood	N	N	N	N	Y
Town of Cowarts	Y	Y	N	N	Y
City of Dothan	Y	Y	Y	Y	Y
Town of Gordon	N	N	N	N	Y
City of Kinsey	Y	N	N	N	Y
Town of Madrid	N	N	N	N	Y
Town of Rehobeth	Y	Y	N	N	Y
City of Taylor	N	N	N	N	Y
Town of Webb	N	N	N	N	Y

Table 3.3 summarizes NFIP participation and policy statistics for each jurisdiction in the planning area as of September 30, 2014. More site specific information on at-risk structures and repetitive loss properties is provided in the Risk Assessment section.

Table 3.3: National Flood Insurance Program (NFIP) Status

Jurisdiction	County	Participation Status	Initial FBHM Identified	Initial FIRM Identified	Current Effective Map Date
Barbour County	Barbour	Yes	4/28/1978	1/1/1987	8/18/2009
Baker Hill	Barbour	Not Mapped			
Blue Springs	Barbour	Yes	1/10/1975	9/1/1986	8/18/2009
Clayton	Barbour	Yes	9/9/1978	5/1/1994	8/18/2009
Clio	Barbour	Yes	7/11/1975	7/18/1985	8/18/2009
Eufaula	Barbour	Yes	12/14/1973	1/15/1988	8/18/2009

Jurisdiction	County	Participation Status	Initial FBHM Identified	Initial FIRM Identified	Current Effective Map Date
Louisville	Barbour	Yes	1/10/1975	9/1/1987	8/18/2009
Butler County	Butler	Yes	4/21/1978	9/11/2009	9/11/2009
Georgiana	Butler	Yes	2/21/1975	7/15/1977	9/11/2009
Greenville	Butler	Yes	10/8/1976	5/1/1980	9/11/2009
McKenzie	Butler	Yes	N/A	9/11/2009	NSFHA
Coffee County	Coffee	Yes	1/17/1975	12/5/1990	8/19/2010
Elba	Coffee	Yes	N/A	10/11/1972	8/19/2010
Enterprise	Coffee	Yes	7/26/1974	7/2/1980	8/19/2010
Kinston	Coffee	Yes	1/10/1975	12/30/1977	8/19/2010
New Brockton	Coffee	Yes	1/17/1975	7/22/1977	8/19/2010
Covington County	Covington	Yes	12/13/1974	9/1/1990	11/4/2009
Andalusia	Covington	Yes	1/13/1978	11/4/2009	11/4/2009
Babbie	Covington	No	1/10/1975	11/4/2009	11/4/2009
Carolina	Covington	No	1/10/1975	11/4/2009	11/4/2009
Floral	Covington	Yes	N/A	11/4/2009	11/4/2009
Gantt	Covington	Yes	6/7/1974	11/4/2009	11/4/2009
Heath	Covington	No	11/4/2009	11/4/2009	11/4/2009
Horn Hill	Covington	No	11/4/2009	11/4/2009	11/4/2009
Libertyville	Covington	No	11/4/2009	11/4/2009	11/4/2009
Lockhart	Covington	No	11/4/2009	11/4/2009	11/4/2009
Onycha	Covington	Not Mapped			
Opp	Covington	Yes	7/11/1975	7/18/1985	11/4/2009
Red Level	Covington	Yes	1/10/1975	11/4/2009	11/4/2009
River Falls	Covington	Yes	9/20/1974	7/8/1977	11/4/2009
Sanford	Covington	Not Mapped			
Geneva County	Geneva	Yes	2/20/1976	5/1/1995	2/20/2008
Black	Geneva	Yes	2/7/1975	2/20/2008	2/20/2008
Coffee Springs	Geneva	Yes	N/A	2/20/2008	2/20/2008
Geneva	Geneva	Yes	3/29/1974	7/2/1980	2/20/2008
Hartford	Geneva	Yes	6/28/1974	7/22/1977	2/20/2008
Malvern	Geneva	Yes	12/6/1974	2/24/1978	2/20/2008
Samson	Geneva	Yes	6/7/1974	2/24/1978	2/20/2008
Slocomb	Geneva	Yes	5/24/1974	12/16/1977	2/20/2008
Henry County	Henry	Yes	1/17/1975	8/1/1987	9/28/2007
Abbeville	Henry	Yes	1/31/1975	9/4/1985	9/28/2007
Haleburg	Henry	No	N/A	9/28/2007	9/28/2007
Headland	Henry	Yes	6/28/1974	8/19/1986	9/28/2007
Newville	Henry	Yes	1/10/1975	9/29/1986	9/28/2007

Jurisdiction	County	Participation Status	Initial FBHM Identified	Initial FIRM Identified	Current Effective Map Date
Houston County	Houston	Yes	2/14/1975	9/29/1989	12/16/2005
Ashford	Houston	Yes	10/31/1975	9/4/1985	12/16/2005
Avon	Houston	Yes	9/20/1974	9/1/1986	12/16/2005
Columbia	Houston	Yes	2/20/1976	9/4/1985	12/16/2005
Cottonwood	Houston	Yes	5/17/1974	4/5/1988	12/16/2005
Cowarts	Houston	Yes	10/31/1975	11/21/2002	12/16/2005
Dothan	Dale / Houston	Yes	12/28/1973	1/15/1988	12/16/2005
Gordon	Houston	Yes	10/25/1974	4/2/1986	12/16/2005
Kinsey	Houston	Yes	9/13/1974	9/29/1986	12/16/2005
Madrid	Houston	Yes	8/23/1974	7/18/1985	12/16/2005
Rehobeth	Houston	Yes	N/A	11/21/2002	12/16/2005
Taylor	Houston	Yes	9/13/1974	11/21/2002	2/20/2008
Webb	Houston	Yes	8/23/1974	11/21/2002	NSFHA

Source: NFIP Community Status Book (09/30/2014)

Section 4 – Risk Assessment

This section of the plan addresses requirements of Section 201.6 (c)(2).

Section Contents

- 4.1 Hazard Overview
- 4.2 Hazard Profiles
- 4.3 Technological and Human-Caused Hazards
- 4.4 Vulnerability Overview
- 4.5 Probability of Future Occurrence and Loss Estimation
- 4.6 Total Population and Property Valuation Summary by Jurisdiction
- 4.7 Critical Facilities/Infrastructure by Jurisdiction
- 4.8 Hazard Impacts

4.1 Hazard Overview

AEMA Region B is affected by a wide range of natural and human-caused hazards that negatively impact life and property. Current FEMA regulations under the Disaster Mitigation Act of 2000 (DMA 2000) require, at a minimum, an evaluation of a full range of natural hazards. An evaluation of human-caused hazards (i.e., technological hazards, terrorism, etc.) is allowed, but not required for plan approval. The Regional Hazard Mitigation Plan concentrates on natural hazards, but does include a summarized assessment of potential human-caused hazards.

4.2 Hazard Profiles

AEMA Region B is affected by multiple hazards that are addressed below. These hazards were identified and evaluated through a process that included studying historical events, previous local mitigation plans, susceptibility of location to hazards, and input from local stakeholders. For each hazard addressed in the risk assessment, general descriptions of the hazards and its extent of effects on the region are included. Even though jurisdictions in Crenshaw, Dale, and Pike counties are not full participants in this version of the Regional Hazard Mitigation Plan, information from all ten counties are included in portions of the Risk Assessment that assist in a comprehensive view of regional impacts.

Due to its geographical location, areas in AEMA Region B are vulnerable to many hazards that potentially disrupt life and property during any time of the year. Hazard types that have no applicability to the region are: avalanche, coastal erosion, tsunami, and volcano. These hazards will not be mentioned any further. Table 4.1 displays potential hazards and if they present a risk to the planning area, including information sources and how the hazard associates to the region.

Table 4.1: Potential Hazards and Data Sources

Hazard	Risk	Source	Correlation with Region
Avalanche	No	US Forest Service National Avalanche Center (http://www.fsavalanche.org/)	No risk of avalanche events in Alabama
Coastal Erosion	No	FEMA Coastal Erosion Hazards Report (http://www.fema.gov/media-library/assets/documents/8397)	AEMA Region B is an inland area
Dam Failure	Yes	USACE National Inventory of Dams (http://geo.usace.army.mil/pgis/f?p=397:12:)	Population downstream from dams; flooding concerns; no State regulation of dam safety
Drought / Extreme Heat	Yes	United States Drought Monitor (http://droughtmonitor.unl.edu/) / NOAA National Climatic Data Center (http://www.ncdc.noaa.gov/stormevents/)	Historic incidents with damage
Earthquake	Yes	USGS Earthquake Hazards Program (http://earthquake.usgs.gov/earthquakes/)	Proximity to Southeast US seismic zones
Flooding	Yes	NOAA National Climatic Data Center (http://www.ncdc.noaa.gov/stormevents/)	Historic incidents with damage / identified flood hazard areas
High Winds (Hurricanes, Tornadoes, Windstorms)	Yes	National Weather Service (NWS) Storm Data (http://www.srh.noaa.gov/bmx/?n=stormdata_main/) / NWS Tornado Database (http://www.srh.noaa.gov/bmx/?n=tornadodb_main/) / National Hurricane Center Data Archive (http://www.nhc.noaa.gov/data/#tcr)	Historic incidents with damage

Hazard	Risk	Source	Correlation with Region
Landslides	Yes	USGS Landslides Hazard Program (http://landslides.usgs.gov/hazards/nationalmap/) / Geological Survey of Alabama, Landslides (http://gsa.state.al.us/gsa/geologic hazards/Landslides.htm)	Susceptible areas to landslides
Land Subsidence / Sinkholes	Yes	Geological Survey of Alabama, Sinkholes in Alabama (http://gsa.state.al.us/gsa/geologic hazards/Sinkholes_AL.htm)	Susceptible areas to land subsidence / sinkholes
Tsunami	No	FEMA, Tsunami (http://m.fema.gov/tsunamis)	AEMA Region B is an inland area
Volcano	No	FEMA, Volcanoes (http://m.fema.gov/volcanoes)	Not near an active volcano
Wildfire	Yes	Alabama Forestry Commission Wildfire Assessment Maps (http://www.forestry.alabama.gov/fireRiskAssessmentMaps.aspx?bv=1&s=4)	Historic incidents with damage / identified susceptible areas
Winter / Ice Storms	Yes	NOAA National Climatic Data Center (http://www.ncdc.noaa.gov/stormevents/)	Historic incidents with damage

Effects from high winds (primarily from tornadoes and hurricanes) and flooding are regarded as the most significant natural hazards affecting the planning area.

Many hazards are multi-faceted and interrelated; therefore, some are grouped together due to their impacts and mitigation strategies being similar. An example is a high wind event, resulting from a hurricane, tornado, or severe thunderstorm, may produce direct damage to critical facilities and other structures and may render roadways impassible due to debris.

AEMA Region B has been included in 24 Federal Disaster Declarations, as shown in Table 4.2. The declared disasters have been primarily related to two major types of impact: flooding (through both tropical and non-tropical events) and high winds (through hurricanes, tornadoes, and severe thunderstorms). There has also been a declaration for a drought incident and a winter storm that affected the entire region.

Table 4.2: AEMA Region B Federally-Declared Disasters (Through May 2, 2014)

Declaration Date	Disaster Number	Type of Incident	Counties Declared
March 14, 1975	458	Severe Storms/Flooding	Barbour, Coffee, Crenshaw, Dale, Geneva, Pike
April 23, 1975	464	Severe Storms/Flooding	Coffee, Covington, Dale, Geneva
October 2, 1975	488	Severe Storms/Tornadoes/Flooding	Barbour, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston, Pike
July 20, 1977	3045	Drought	Entire Region
April 18, 1979	578	Storms/Wind/Flooding	Houston
September 13, 1979	598	Hurricane Frederic	Covington, Geneva
March 21, 1990	861	Severe Storms/Tornado	Entire Region

Declaration Date	Disaster Number	Type of Incident	Counties Declared
March 15, 1993	3096	Severe Snowfall and Winter Storm	Entire Region
July 8, 1994	1034	Severe Storms/Flooding/TS Alberto	Barbour, Coffee, Covington, Dale, Geneva, Henry, Houston
October 4, 1995	1070	Hurricane Opal	Entire Region
March 9, 1998	1208	Severe Storms/Flooding	Barbour, Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston
April 9, 1998	1214	Tornadoes/Severe Storms	Covington
September 30, 1998	1250	Hurricane Georges	Butler, Coffee, Covington, Crenshaw, Geneva
December 18, 2000	1352	Tornadoes	Dale, Geneva, Henry, Houston
December 7, 2001	1399	Severe Storms/Tornadoes	Butler, Dale
November 14, 2002	1442	Severe Storms/Tornadoes	Barbour, Dale, Henry, Houston
May 12, 2003	1466	Severe Storms/Tornadoes/Flooding	Barbour
September 15, 2004	1549	Hurricane Ivan	Entire Region
July 10, 2005	1593	Hurricane Dennis	Entire Region
March 3, 2007	1687	Severe Storms/Tornadoes	Coffee, Dale, Henry
April 28, 2009	1835	Severe Storms / Flooding / Tornadoes / Straight-line Winds	Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston
December 31, 2009	1870	Severe Storms/Flooding	Barbour, Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Pike
April 28, 2011	1971	Severe Storms / Tornadoes / Straight-line Winds / Flooding	Entire Region
September 21, 2012	4082	Hurricane Isaac	Covington, Geneva
May 2, 2014	4176	Severe Storms/Tornadoes/Straight-Line Winds/Flooding	Butler, Covington, Crenshaw, Dale, Geneva, Houston

Source: Federal Emergency Management Agency (September 2014)

Under a federally-declared disaster, the State of Alabama and affected local jurisdictions are eligible to apply for federal reimbursement for debris removal, emergency services, and critical facility repair/replacement. Funding is also made available for hazard mitigation grants that allow for implementation of mitigation projects that are listed in this plan.

Each hazard profile includes a summary of the following:

- **Background:** Provides general definitions and brief descriptions of the hazard, its characteristics, and potential effects.

- **Locations Affected:** Provides information on the geographic areas within the planning area that are susceptible to hazard occurrences. Locations affected are described regionally, unless a specific jurisdiction has different risks, which is further explained in comparison with the rest of the planning area.
- **Extent:** Provides information on the potential strength or magnitude of the hazard.
- **Historical Occurrences:** Provides information on the history of previous hazard events in the planning area, including their impacts.
- **Probability of Future Events:** Describes the likelihood of future hazard occurrences in the planning area. Many hazards may affect the entire planning area, while other hazards are more localized due to specific factors. These qualitative descriptions are from historical occurrences and other risk factors. Because of the lack of comprehensive quantitative data on many of the hazards, susceptibility to future damage will be noted by categories of High, Medium, Low, or Very Low described below.
 - **High:** Probable major damage in a 1-10 Year Period
 - **Medium:** Probable major damage in a 10-50 Year Period
 - **Low:** Probable major damage in a 100 Year Period
 - **Very Low:** No probable major damage in a 100 Year Period

DAM / LEVEE FAILURE

Background

Dam and levee malfunctions may cause failures that flood areas downstream through releasing large volumes of water with little warning, which may cause extensive property damage and casualties. Dam safety has been an ongoing hazard mitigation issue in the State of Alabama for the past two decades as infrastructure has been aging, especially regarding small dams that are privately owned and poorly maintained. No state law exists to regulate any existing private dams or the construction of new private dams that do not require federal licenses or inspections. There have been multiple attempts to pass legislation, which would require inspection of dams on bodies of water over 50 acre-feet or dams higher than 25 feet. Approximately 1,700 privately owned dams in the State of Alabama would fit into the category proposed by the law.

Locations Affected

There are 174 recorded dams in AEMA Region B listed in the National Inventory of Dams (NID), which is maintained by the U.S. Army Corps of Engineers (USACE). Of these, approximately seven (7) are classified by the USACE as high-hazard dams. However, the NID is an outdated source, due to Alabama's lack of regulatory authority, and the true number of high hazard dams is likely much higher. Localized studies of the NID data conducted by the Alabama Office of Water Resources (OWR) outside of the planning region has shown that many NID points are not spatially accurate and does not represent the potential hazards with the particular dams. There are also private dams in many areas that are not necessarily known by local authorities. The OWR is in the process of developing a dam inventory, which will include classifying hazard potential. However, this inventory has not been completed at this time. Future updates to the Regional Hazard Mitigation Plan will incorporate information from the OWR study, which will be much more accurate than what is currently available.

There are also two major levee systems within the region, protecting central areas of Elba and Geneva. Both levees were originally completed in 1938 by the Works Progress Administration with extensive rehabilitation completed by 2007 by the U.S. Army Corps of Engineers, after the Elba levee had failures created by major floods in 1990 and 1998.

Table 4.3 provides the dams listed in the National Inventory of Dams (NID) for the planning area.

Table 4.3: NID Listed Dams in Planning Area

Dam Name	County	Owner Type	NID Height (ft)	NID Storage (acre ft)
Louisville Club Pond Dam	Barbour	Private	11	34
Sutton Lake Dam	Barbour	Private	21	120
Weston Lake Dam	Barbour	Private	15	58
Grants Duck Pond	Barbour	Private	12	174
Barbour County Public Lake Dam	Barbour	State	29	757
McCalls Lake Dam	Barbour	Private	22	176
Easterling Mill Pond Dam	Barbour	Private	18	177

Dam Name	County	Owner Type	NID Height (ft)	NID Storage (acre ft)
Wycott Lake Dam	Barbour	Private	19	283
Autrey	Butler	Private	12	96
Shirling Lake No. 1	Butler	Private	25	70
Conservation Lake	Butler	Private	14	89
W O Blackmon	Butler	Private	15	67
Butler County No. 1	Butler	Private	35	294
Lake Greenville	Butler	Private	15	546
Alexander	Butler	Private	14	245
McGowin	Butler	Private	15	73
Lake Tanner Dam	Butler	Private	23	368
Golson Pond	Butler	Private	18	51
Container Corporation Dam	Butler	Private	16	50
F H Morgan Lake Dam	Butler	Private	-	-
Thompson Pond Dam	Butler	Private	22	67
Alexander Pond Dam	Butler	Private	-	-
Kervin	Butler	Private	18	113
Sportsmen Club Lake Dam	Butler	Private	25	106
Eugene R Majors Lake Dam	Butler	Private	24	84
Wyrosdick Pond Dam	Butler	Private	18	64
Greenville Sewage Lagoon Dam	Butler	Private	12	106
Stirling Hamilton Lake Dam	Butler	Private	20	58
Eula B Autrey Lake Dam	Butler	Private	31	104
Roeton Mill Pond Dam	Coffee	Private	18	108
Donaldson Lake Dam	Coffee	Private	22	91
Whitman Pond Dam	Coffee	Private	18	81
Ellis Wise Dam	Coffee	Private	27	85
Boy Scout Lake	Coffee	Private	25	840
Elba	Coffee	Private	39	950
Gateway Lake Dam	Coffee	Private	-	-
Lunsford Pond Dam	Coffee	Private	26	151
Devaughn Lake Dam	Coffee	Private	23	73
Sam Sawyer Lake	Coffee	Private	20	173
Mallory Lake Dam	Coffee	Private	22	61
Coffee County Public Lake Dam	Coffee	State	23	657
Lake Nolin Dam	Coffee	Private	7	53
Enterprise Country Club Lake Dam	Coffee	Private	27	126
Sawyer Lake Dam	Coffee	Private	20	120
Hollis Pond Dam	Coffee	Private	20	101

Dam Name	County	Owner Type	NID Height (ft)	NID Storage (acre ft)
Ray Boyd	Coffee	Private	25	238
Nasco	Coffee	Private	21	159
Paschal Lake	Coffee	Private	26	316
Lake Helen	Coffee	Private	22	302
Elba Country Club Lake Dam	Coffee	Private	-	-
Pittman Lake	Coffee	Private	27	417
Lake Charles Dam	Coffee	Private	-	-
Murdock Lake	Coffee	Private	20	109
Clifton Maddox	Covington	Private	12	69
Billy Carter	Covington	Private	14	101
Robert Brantley	Covington	Private	12	84
Jerry Adams	Covington	Private	14	81
James Cravey	Covington	Private	15	123
Leo Williams	Covington	Private	12	101
Harold Wise	Covington	Private	12	70
Danley Estates Lake	Covington	Private	20	53
Gantt	Covington	Public Utility	44	14645
H C Huggins	Covington	Private	17	306
Point "A"	Covington	Public Utility	56	2300
Harold Wise Lake	Covington	Private	15	89
Anthony Dam	Covington	Private	24	237
A K Lord	Covington	Private	26	106
Anderson Dam	Covington	Private	24	332
A K Lord	Covington	Private	30	100
Charles Woodham Lake	Covington	Private	18	85
Charles Gibeaut Lake	Covington	Private	17	55
Ponderosa	Geneva	Private	24	198
Geneva County No. 2	Geneva	Local Government	28	305
Lake Fox	Geneva	Private	41	232
Hughes No. 1	Geneva	Private	20	108
Lake Frankie	Geneva	Private	10	113
Mack Snell Lake and Dam	Geneva	Private	10	63
Paul Kennedy No. 2	Geneva	Private	14	96
Joe Roeny No. 2	Geneva	Private	15	76
Joe Roeny No. 1	Geneva	Private	15	72
Pasco Davis Lake	Geneva	Private	14	56
Paul Kennedy No. 1	Geneva	Private	14	76
Geneva County No. 1	Geneva	Local Government	19	238
Hughes No. 2	Geneva	Private	15	76
Murdock Pond Dam	Geneva	Private	28	38

Dam Name	County	Owner Type	NID Height (ft)	NID Storage (acre ft)
Lakeside Estates	Geneva	Private	22	99
Ponderosa	Geneva	Private	15	165
Bill Brooks No. 2	Geneva	Private	21	119
Danny Fulford	Geneva	Private	25	205
Bill Brooks No. 1	Geneva	Private	21	207
Choctawhatchee No. 1	Henry	Private	16	78
G B Mathison	Henry	State	15	161
W C Wills	Henry	Private	27	107
Choctawhatchee No. 2	Henry	Private	10	76
Marshall Brothers Pond	Henry	Private	27	261
M L Tillis	Henry	Federal	26	89
Walter F George	Henry	Private	171	934400
Edward White Pond	Henry	Private	20	244
Billy Byrd	Houston	Private	16	150
Adams Lake and Dam	Houston	Private	12	62
Garner Brothers	Houston	Private	14	103
Wheless Lake and Dam	Houston	Private	18	61
Gerald Crowley	Houston	Private	14	138
Caroline Wilson	Houston	Private	13	260
Ingram Lake	Houston	Private	13	73
David West	Houston	Private	14	68
Jessie Forrester	Houston	Private	17	204
Glen Lawrence Dam	Houston	Private	15	445
Hosea Mathis	Houston	Private	13	142
George W Andrews	Houston	Federal	59	18180
Bruce Blaum	Houston	Private	21	155
Emmett Sellers	Houston	Private	19	132
H & R Farms Pond	Houston	Private	21	137
Good Hope Farms Pond	Houston	Private	22	162
Farley Cat I Cool Water Storage Pond	Houston	Public Utility	63	2674

Source: *The National Inventory of Dams (NID)* (August 2014)

Extent

The potential extent of dam failure may be classified by their “hazard potential”. The “hazard potential” for dams indicates the probable damage that would occur if the dam failed, in regards to human life and property damage. The Federal Guidelines for Dam Safety presents three classifications for Dam Hazard Potential (Table 4.4). Once OWR finishes its study and provides a state classification of dams, a more detailed discussion of potential extent will be presented in a future update of the Plan.

Table 4.4: Dam Hazard Classifications

Hazard Potential Classification	Loss of Human Life	Economic, Environmental, Lifeline Losses
Low	None expected	Low; generally limited to owner
Significant	None expected	Yes
High	Probable; one or more expected	Yes

Source: Federal Guidelines for Dam Safety

In most areas of the region, the extent of damage caused by dam failure of levee breach would include a flooding depth of up to several feet that would damage agricultural areas, isolated structures, and some public infrastructure, including adjacent streets. The extent of damage caused by a levee breach in Elba or Geneva spilling several feet of flooding would potentially affect a high density of structures, including residential, commercial, and governmental buildings.

Historical Occurrences

Dam failures are extremely rare events, and have not been recorded within the current planning area. However, dam failures have occurred in other areas of AEMA Region B (Crenshaw and Dale counties) after heavy rainfall events. The Lake Tholocco Dam at Fort Rucker (Dale County) has failed twice in the last 25 years (1990 and 1994), the C.D. Clark Dam in Dozier (Crenshaw County) failed in 1990, and the Magnolia Shores Lake Dam (Crenshaw County) failed in 1990, all after extensive rain events that were federally-declared disasters. These dam failures did not cause any casualties, but the C.D. Clark Dam failure caused damage to U.S. Highway 29 and Lake Tholocco was not utilized again for over six years, impacting recreational opportunities in the area. As mentioned above, the Elba levee failed twice in the 1990s causing extensive flooding and property damage in developed areas of the city.

Probability of Future Events

The few previous occurrences of dam failures known regionally have transpired due to historically extensive rainfall over a large area. There is no documented occurrence of dam failure within the planning area and only rarely in neighboring counties associated with a large rainfall event and major flooding situation. Because of dated and incomplete information pertaining to dam classification in Alabama, it is difficult to ascertain which dams are more susceptible to failure than others until the Alabama Office of Water Resources (OWR) completes their dam inventory. Both the Elba and Geneva levees were reconstructed and completed in 2007, which increased storage capacity for drainage runoff during rainfall events. Therefore, dam failure is an unlikely occurrence within the region and will be considered to have a Low likelihood of probability.

DROUGHT / EXTREME HEAT

Background

Drought occurs when there is below-average precipitation over an extended period of time, gradually affecting hydrological, agricultural, and social concerns. Occurrences of drought are typically classified as follows (Table 4.5).

Table 4.5: Drought Classifications

Meteorological Drought	Departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
Hydrologic Drought	Effects of precipitation shortfalls on streamflows and reservoir, lake, and groundwater levels.
Agricultural Drought	Soil moisture deficiencies relative to water demands of plant life, usually crops.
Socioeconomic Drought	Effects of demands for water exceeding the supply as a result of a weather-related supply shortfall.

Source: FEMA's Multi-Hazard Identification and Risk Assessment (MHIRA)

Extreme heat is abnormally high temperatures that disproportionately affect the elderly, very young, and those with health concerns if exposed to the conditions, especially those without effective climate control systems. Temperatures of 90 degrees or more are regularly observed in the summer months, with 100 degree temperatures being possible. In AEMA Region B, extreme heat tends to occur in conjunction with drought conditions.

Since the area has significant agricultural uses that are adversely affected by drought conditions, drought is a potentially serious economic threat to the area. Drought can also be a contributing factor to wildfires in the forested areas of the region. Similarly, since high temperatures and humidity are possible and occur frequently during the summer months, heat wave conditions are possible in the area. Most of the region's public water supply is drawn from groundwater sources, so extended periods of exceptional drought could potentially limit water supply.

Locations Affected

The entire planning area is susceptible to drought and extreme heat due to its location, which is prone to unpredictable precipitation patterns including extended periods of below-average rainfall.

Extent

For extent of drought, the United States Drought Monitor classifies drought in five levels of severity, based on multiple indicators including soil moisture, streamflow levels, precipitation levels, and local observations (Table 4.6). These classifications are:

Table 4.6: United States Drought Monitor Classification

Category	Description	Possible Impacts
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.
D1	Moderate Drought	Some damage to crops, pastures, streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested.
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed.
D3	Extreme Drought	Major crop / pasture losses; widespread water shortages or restrictions.
D4	Exceptional Drought	Exceptional and widespread crop / pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies.

Source: United States Drought Monitor

The planning area has had multiple instances of D4 levels of exceptional drought, which has caused varying levels of agricultural losses and localized water shortages. The extent of extreme heat for the region is defined as repeated instances of high temperatures over 100 degrees Fahrenheit and associated heat index values of well over 100 degrees Fahrenheit, which may cause human distress. Severe droughts and heat waves may also increase incidence of wildfires.

Historical Occurrences

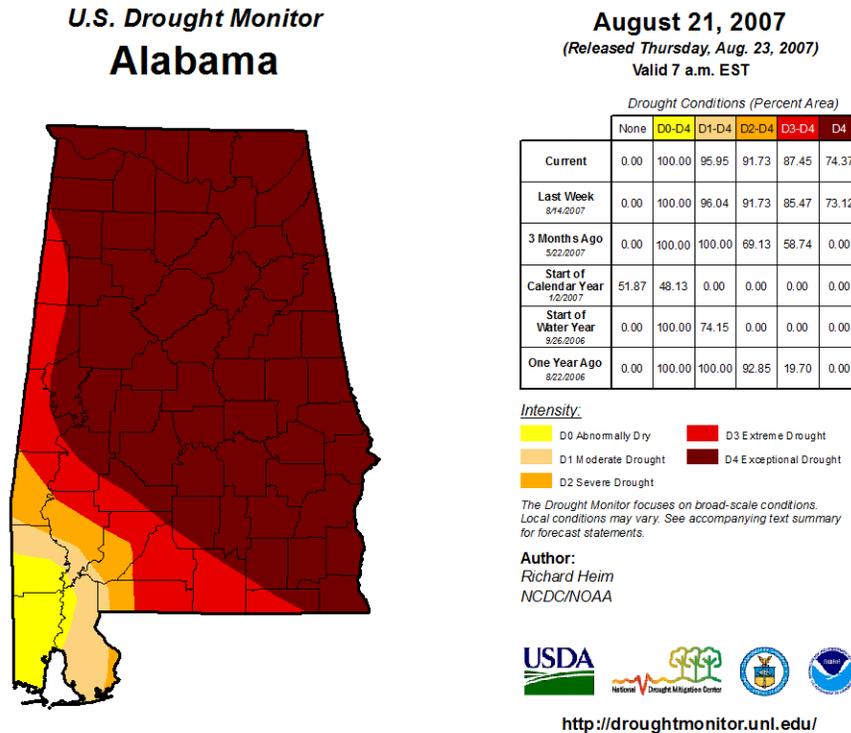
There have been multiple incidences of drought and extreme heat occurrences in AEMA Region B. Quantification of drought occurrences are not easily classified, due to those conditions providing differing effects based on reliance on agricultural, hydrological, or socioeconomic concerns. Therefore, instances of occurrence are taken from the U.S. Drought Monitor and examined from the past decade.

According to the U.S. Drought Monitor, in 2006, most of the region experienced drought conditions from late spring through early autumn that were up to extreme (D3) conditions in July and August. From May 2007 through January 2008, drought conditions returned to Southeast Alabama, with extreme (D3) conditions in June 2007, and exceptional (D4) conditions affecting portions of every county from August through October 2007, before slowly subsiding. This enduring drought greatly affected agricultural production and hydrological levels were way below normal.

Persistent dry weather caused another enduring drought, with severe (D2) drought conditions to return to the region from September 2010 through February 2013, with extreme (D3) conditions encroaching into southern areas of the region in October 2010. For most of the remainder of 2010 and early 2011, a majority of the region remained in D2 conditions, but in May 2011 D3 conditions returned to a large area within the region for almost one and a half (1 ½) years with exceptional (D4) drought conditions in eastern sections of the region in June and July 2011, as well as through portions of the region from January through August 2012.

Figure 4.1 below of the U.S. Drought Monitor Map from August 2007 displays the widespread nature of that particular exceptional drought.

Figure 4.1: U.S. Drought Monitor Map, Alabama (Example from August 21, 2007)



Source: The National Drought Mitigation Center

Probability of Future Events

The probability of drought and extreme heat occurring within the region is relatively high. However, most jurisdictions in the region are capable of managing mild cases of drought and occasional heat waves, rendering minor impacts a majority of the time. Therefore, the likelihood of probability for impactful drought and extreme heat events for the planning area is Medium, probable major damage in a 10-50 Year Period.

EARTHQUAKE

Background

An earthquake is a sudden movement of the earth, caused by a release of energy from the crust. Most earthquakes occur along faults, which are cracks in the earth's crust. Little or no warning precedes earthquakes and they can cause property damage on the surface and subsurface by destroying buildings, utility lines, communications, and other infrastructure.

According to the Alabama State Hazard Mitigation Plan, four seismic zones affect the state. These are the New Madrid Seismic Zone (NMSZ), the Southern Appalachian Seismic Zone (SASZ) (also known as the Eastern Tennessee Seismic Zone), the South Carolina Seismic Zone (SCSZ), and the Bahamas Seismic Zone (BSZ), which all mostly affect areas of Alabama away from Southeast Alabama. Southeast Alabama is not especially at risk from an earthquake, though minor effects from the four aforementioned seismic zones are not out of the question.

Locations Affected

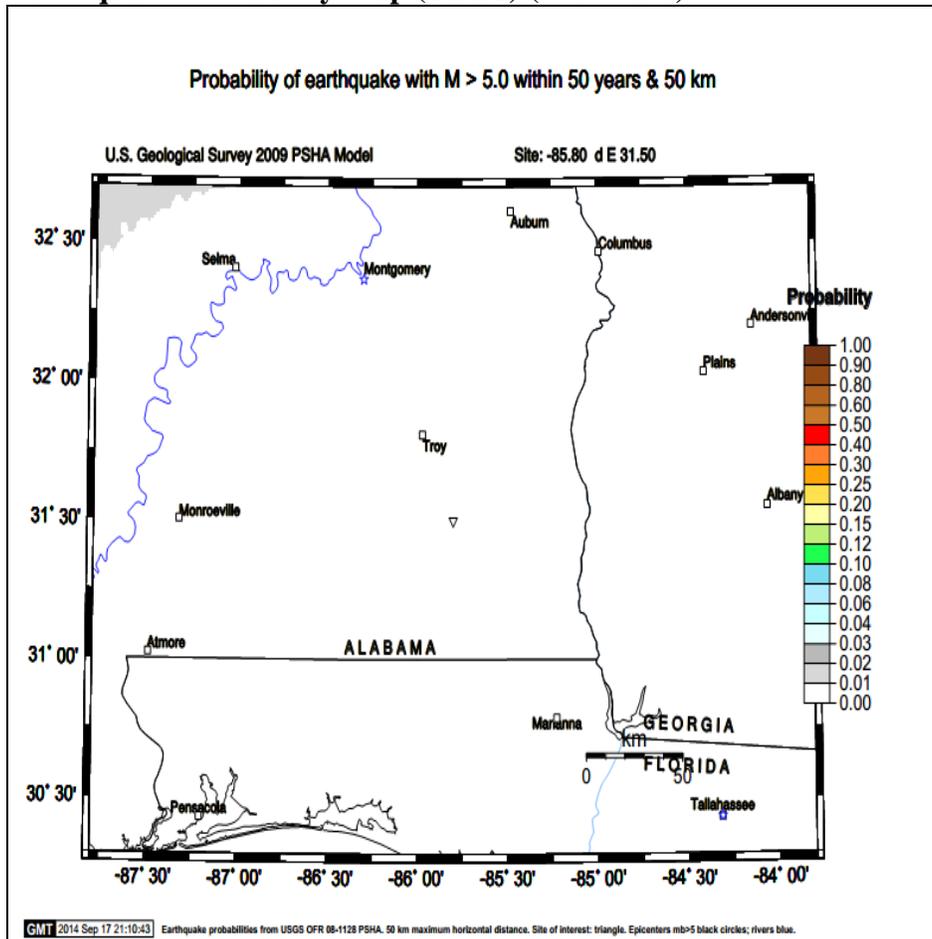
According to the United States Geological Survey (USGS), the maximum peak acceleration for the planning area is a very low seismic risk and there are no recorded earthquake epicenters that have been recorded within the region. There is a possibility of minor effects occurring in the region if a major earthquake occurs elsewhere in the southeastern United States.

Extent

Earthquakes are commonly measured in two ways. The Richter Magnitude Scale measures the earthquake's magnitude, or size, and the Modified Mercalli Intensity Scale measures the earthquake's intensity or the damage caused. The Richter Scale has magnitude measurements from 1 to 9, with a measure of 1 being recorded but not felt, and a measure of 9 being a great earthquake that causes damage over a large area. The Modified Mercalli Intensity Scale has measurements from I to XII, with I being hardly felt, if at all, and XII being total destruction of the surface.

The United States Geological Survey (USGS) publishes seismic hazard maps that estimate earthquake probabilities within a radius of 50 kilometers (km) for a certain time span. The below Figure 4.2 indicates the probability for a 5.0 magnitude earthquake in a 50 year time span is practically nonexistent.

Figure 4.2: Earthquake Probability Map (USGS) (2009 Data)



Source: United States Geological Survey, Earthquake Hazards Program (2014)

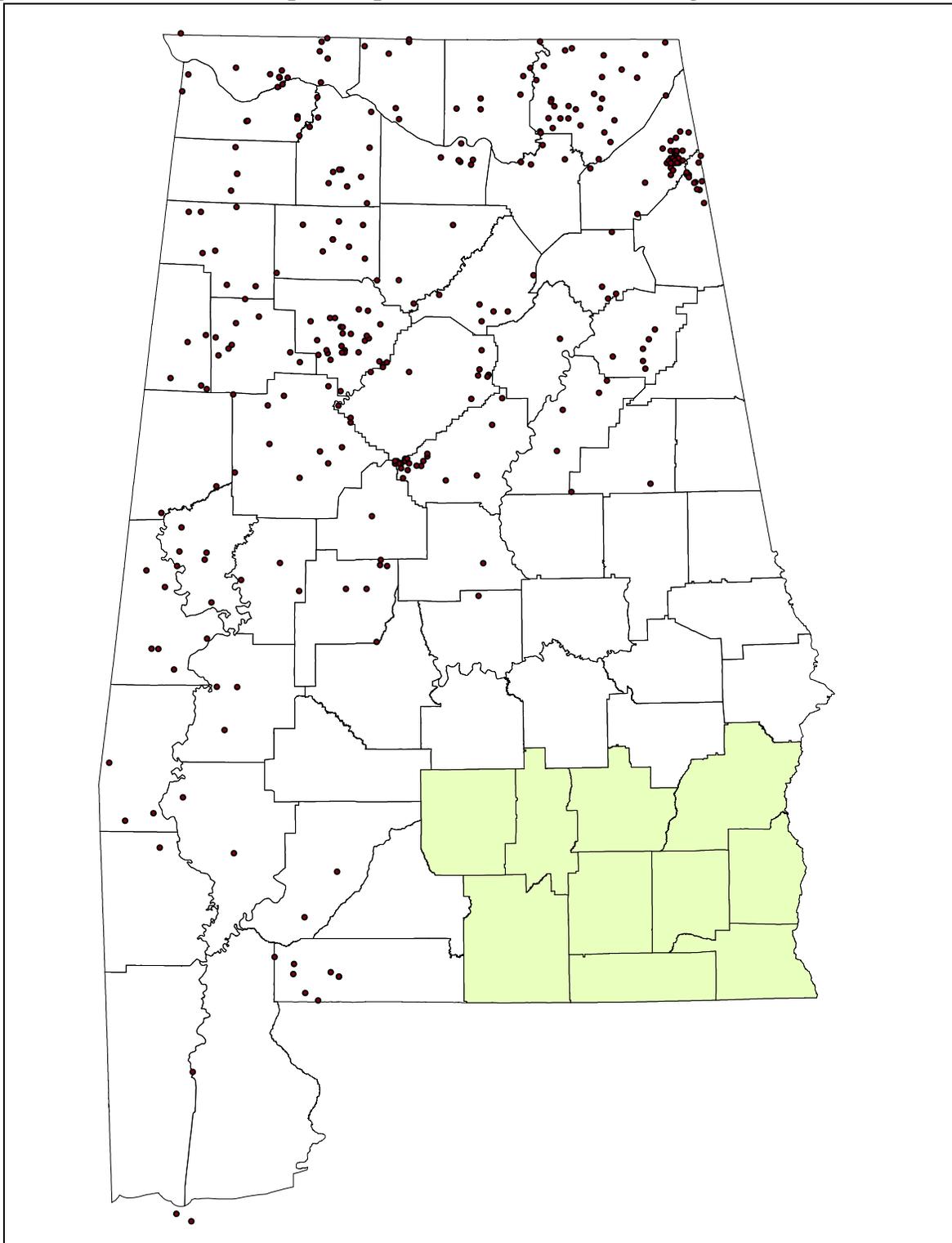
Historical Occurrences

There have been no recorded earthquake events with an epicenter in the planning area (Figure 4.3). The nearest recorded earthquake with any effect on the region occurred on October 24, 1997 in adjacent Escambia County. The epicenter recorded a magnitude of 4.9. Covington County received only minor effects with no recorded damages.

Probability of Future Events

Most earthquakes in Alabama have been low magnitude events with, at most, minor damage, and there have been no recorded earthquakes centered within the planning area. Therefore, the probability of an impactful earthquake on the region is Very Low and will not be profiled further.

Figure 4.3: Historical Earthquake Epicenters in Alabama (through March 2012)



Source: Geological Survey of Alabama, Geospatial Data for Alabama; SEARP&DC (2014)

FLOODING

Background

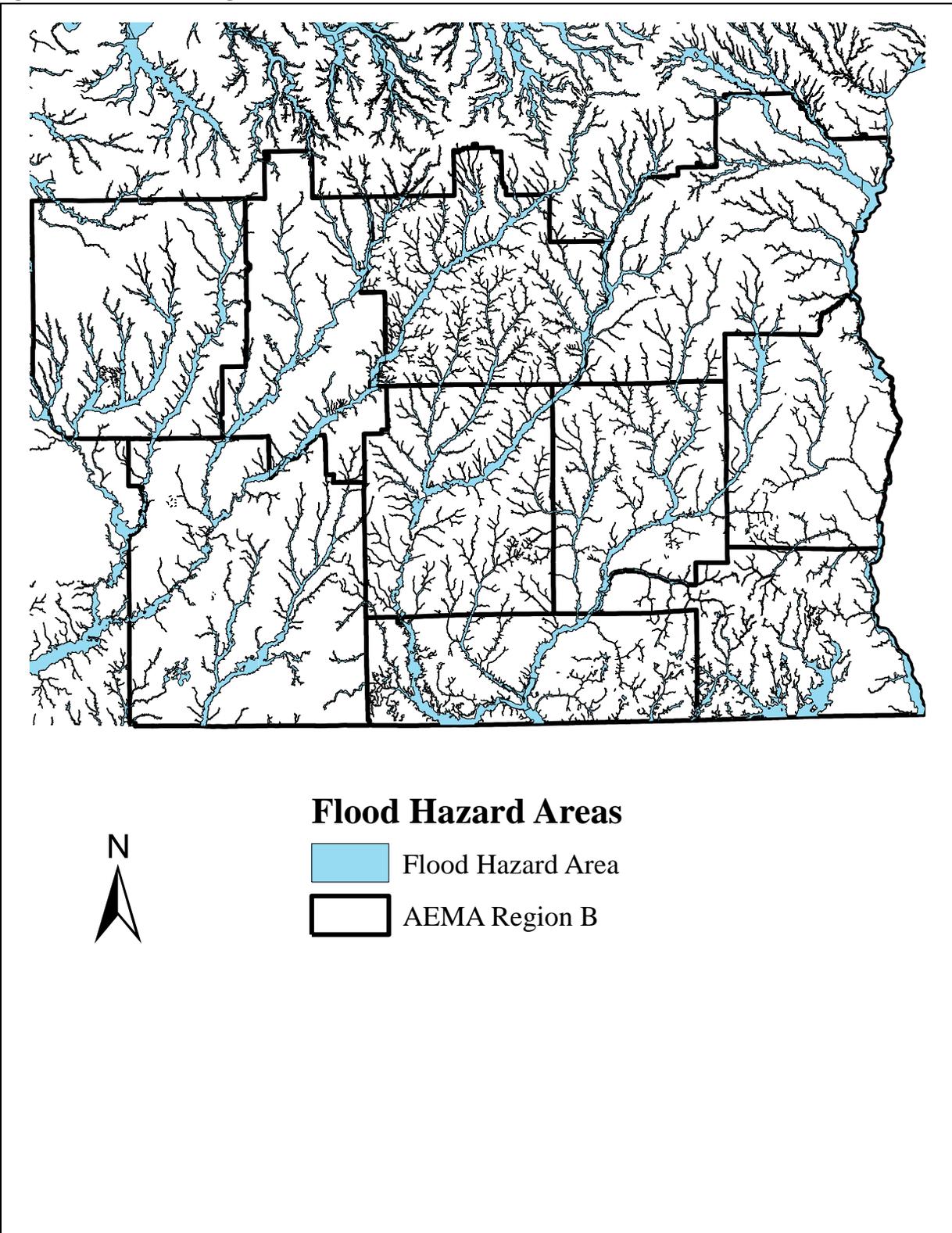
Flooding is considered the most frequent and costly natural hazard in the United States and within AEMA Region B. Flooding normally occurs due to excessive precipitation and is dependent on many factors, including drainage basin characteristics, antecedent soil moisture conditions, weather patterns, and land cover. There are two primary types of flooding that affect Southeast Alabama: riverine flooding and flash flooding.

Riverine flooding occurs when substantial levels of precipitation ensue over a long period of time, causing rivers and streams to flow outside of their natural channels and negatively affecting surrounding areas. Many riverine flooding events in AEMA Region B have been associated with hurricanes and other tropical events. Flash flooding is normally instigated by intense amounts of precipitation over a short time period in a localized area. In AEMA Region B, flash floods are more prevalent in urbanized areas with plentiful impervious surfaces and other areas with obstructions to water runoff. Historically, more flooding events occur between November and April with a peak from February through April. However, flooding can and does occur at any time of year.

Locations Affected

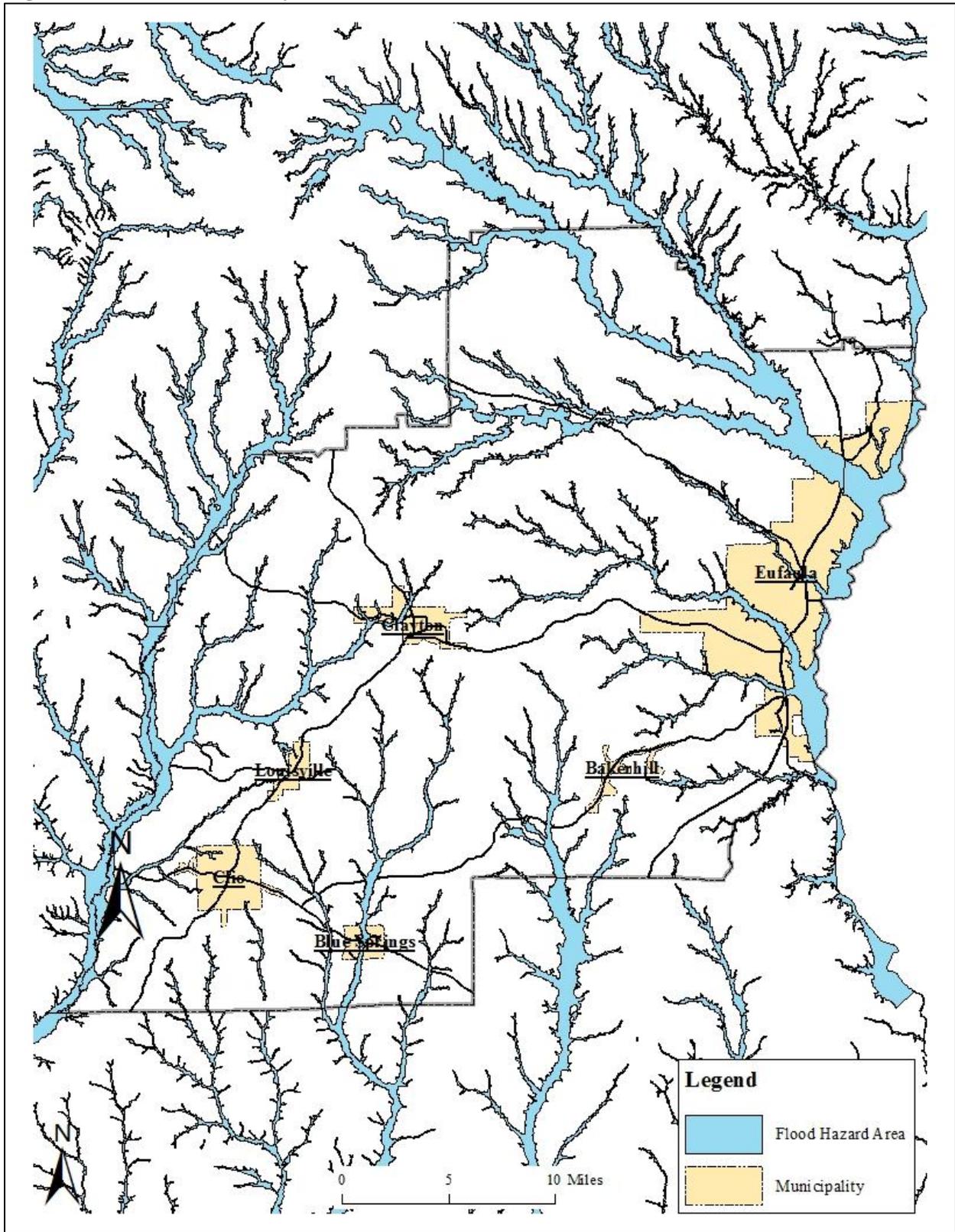
Nearly every jurisdiction in the region has mapped Special Flood Hazard Areas that show areas of susceptibility to riverine flooding events, and nearly every area can be affected by flash flooding if enough rainfall occurs. Figures 4.4 through 4.11 show the location of currently mapped special flood hazard areas for the Southeast Alabama region, based on the most recent FEMA National Flood Hazard Layer available. This map includes areas designated Zone A (one-percent annual chance flood) and Zone AE (one-percent annual chance flood with elevation). It is important to consider that the FEMA data is not perfectly complete and accurate and some flooding may occur outside of these mapped areas.

Figure 4.4: AEMA Region B Flood Hazard Areas



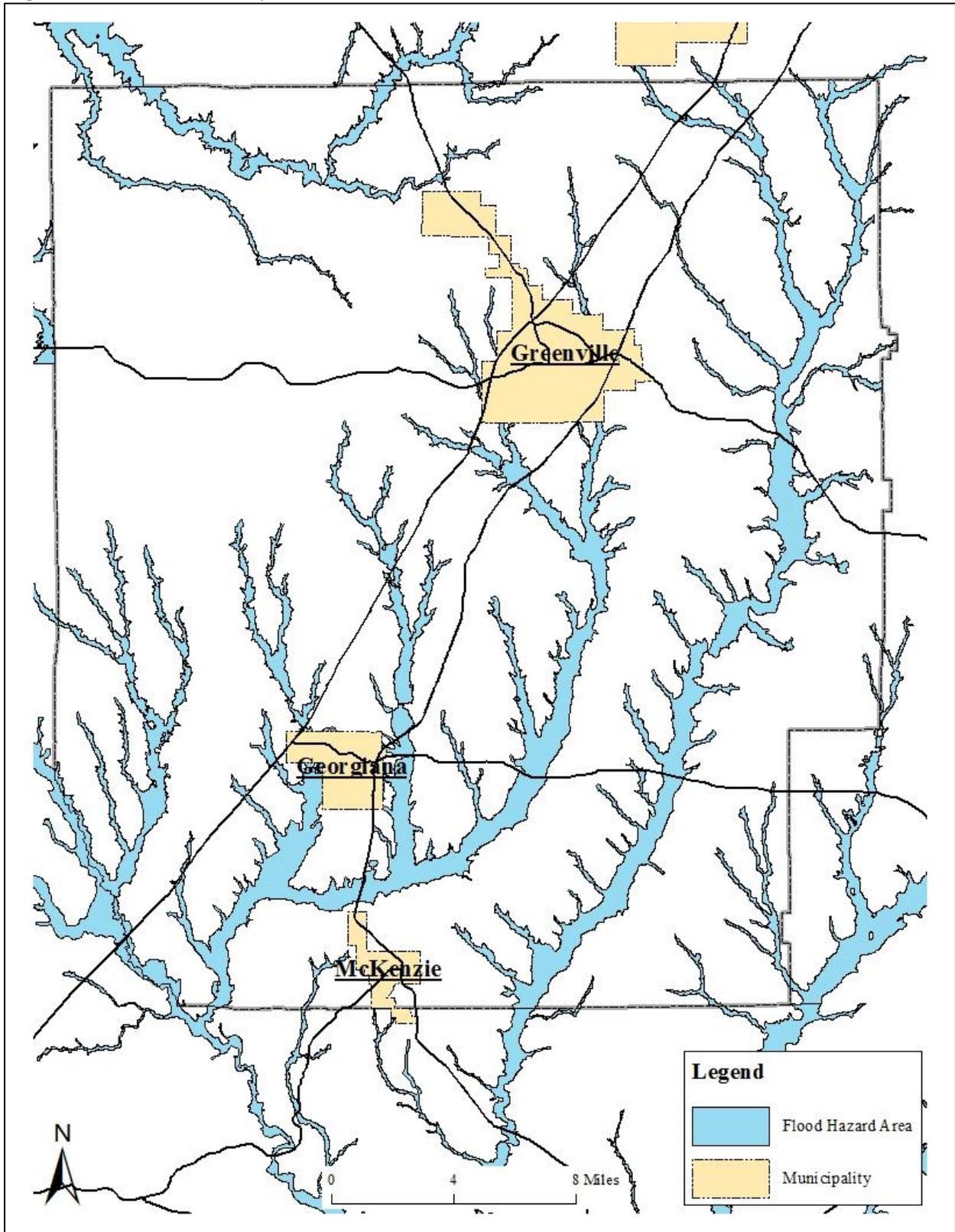
Source: Federal Emergency Management Agency; SEARP&DC (2014)

Figure 4.5: Barbour County Flood Hazard Areas



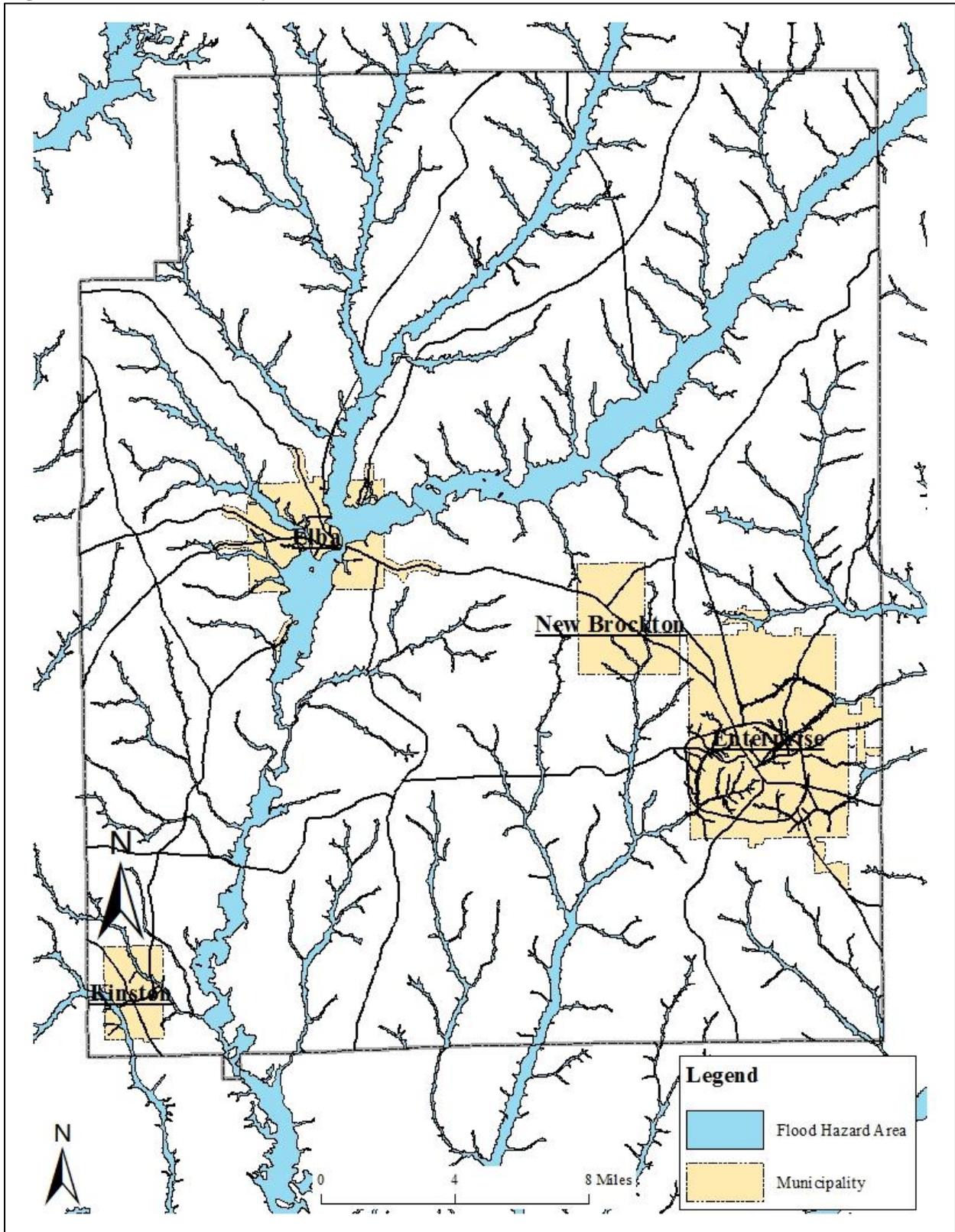
Source: Federal Emergency Management Agency; SEARP&DC (2014)

Figure 4.6: Butler County Flood Hazard Areas



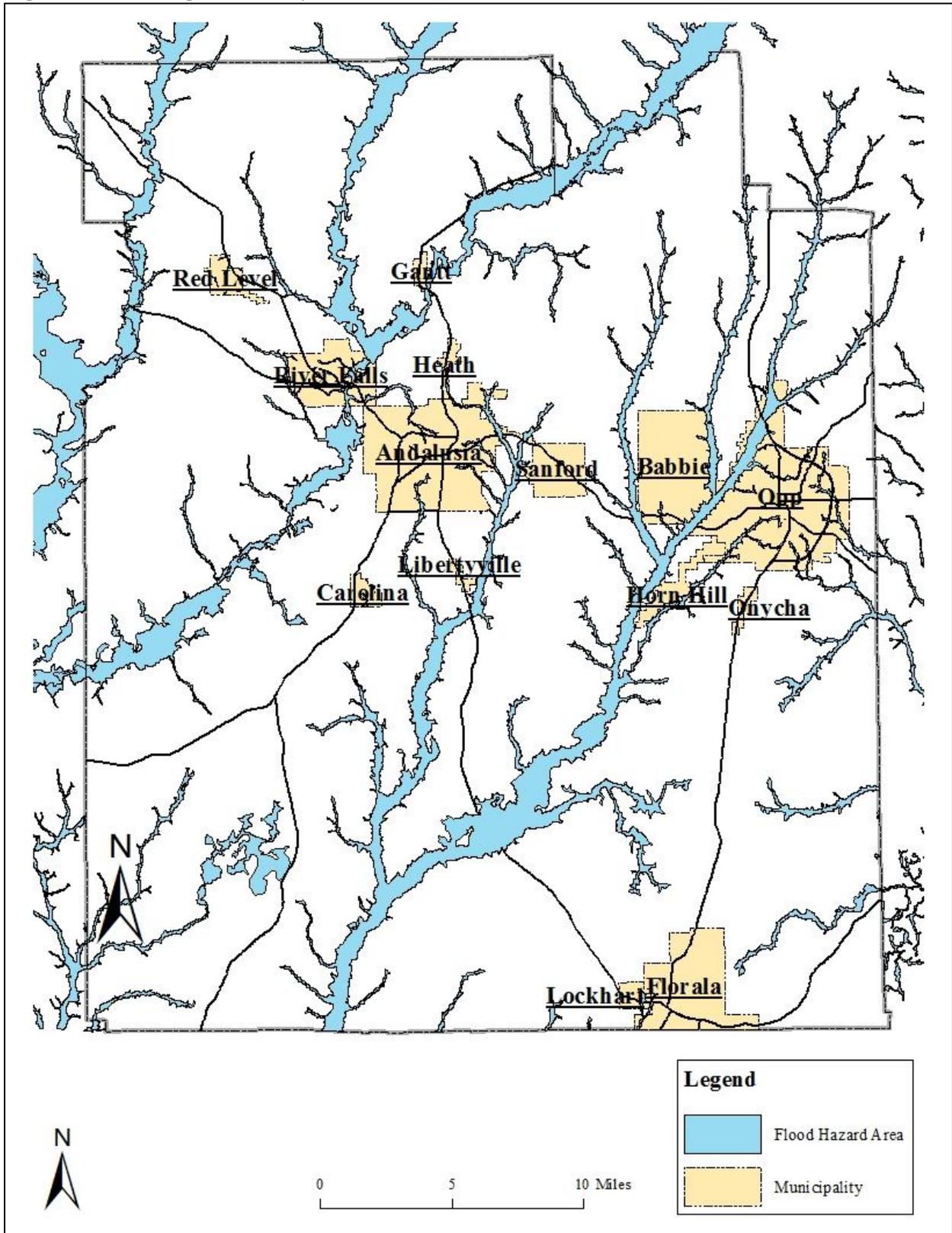
Source: Federal Emergency Management Agency; SEARP&DC (2014)

Figure 4.7: Coffee County Flood Hazard Areas



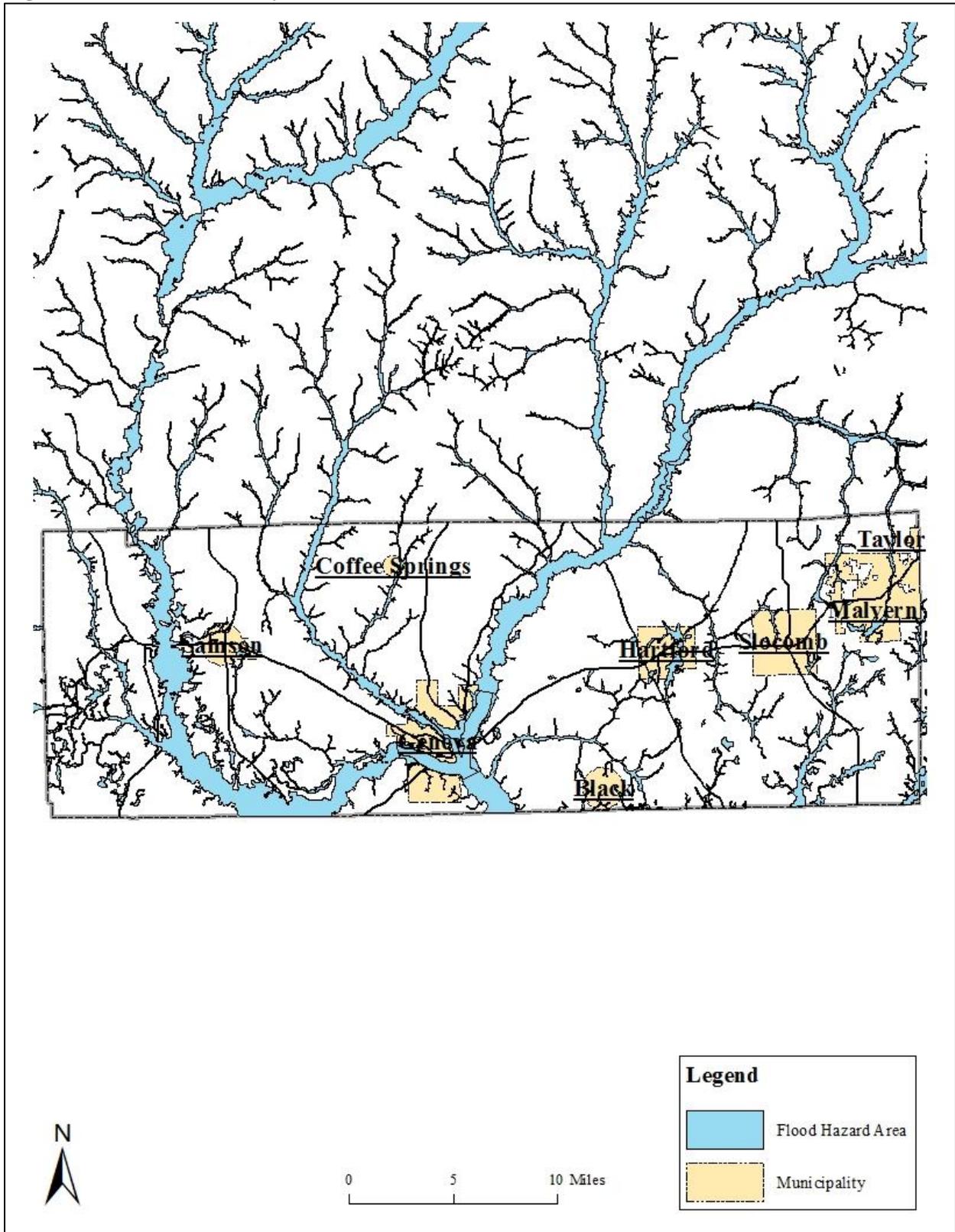
Source: Federal Emergency Management Agency; SEARP&DC (2014)

Figure 4.8: Covington County Flood Hazard Areas



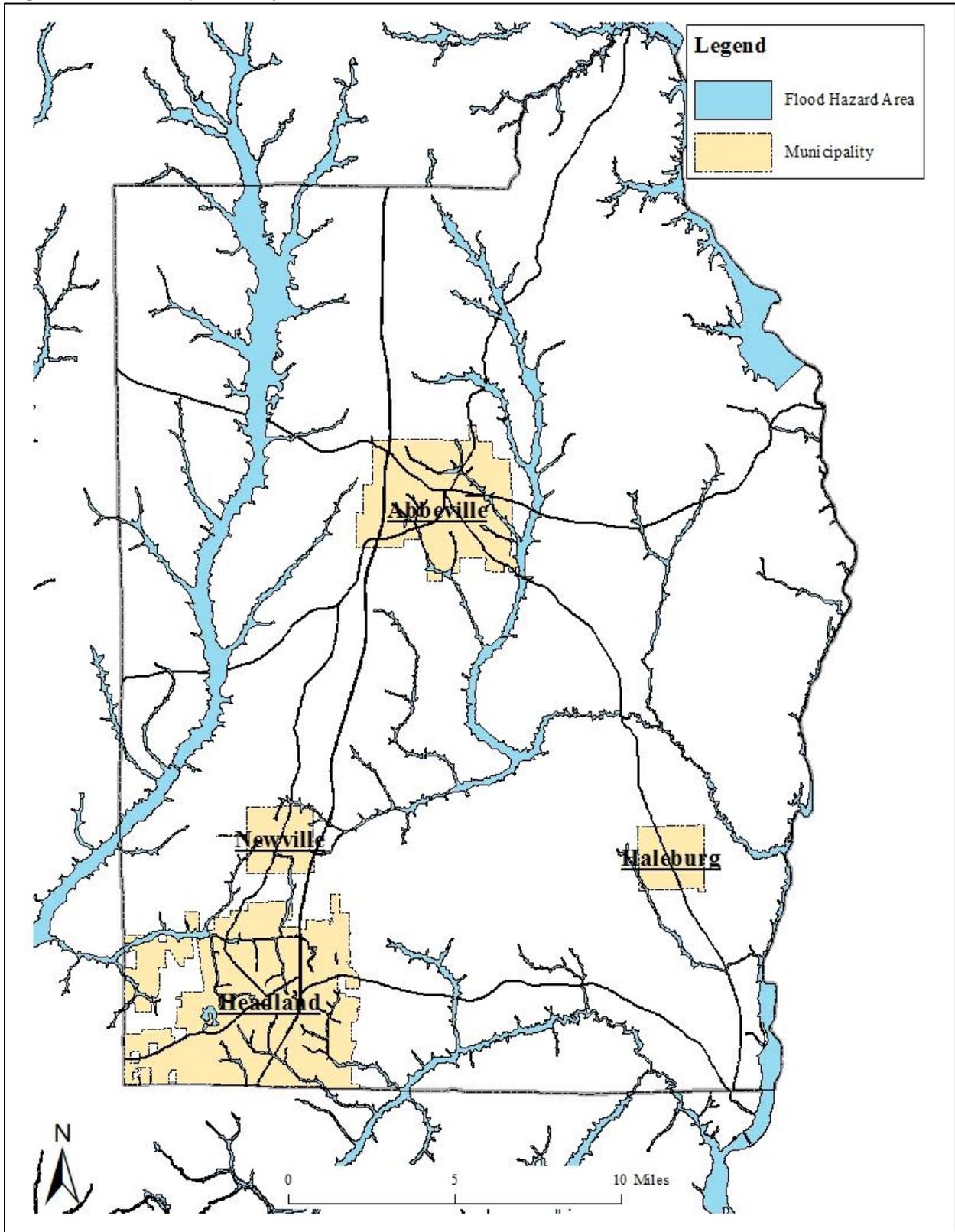
Source: Federal Emergency Management Agency; SEARP&DC (2014)

Figure 4.9: Geneva County Flood Hazard Areas



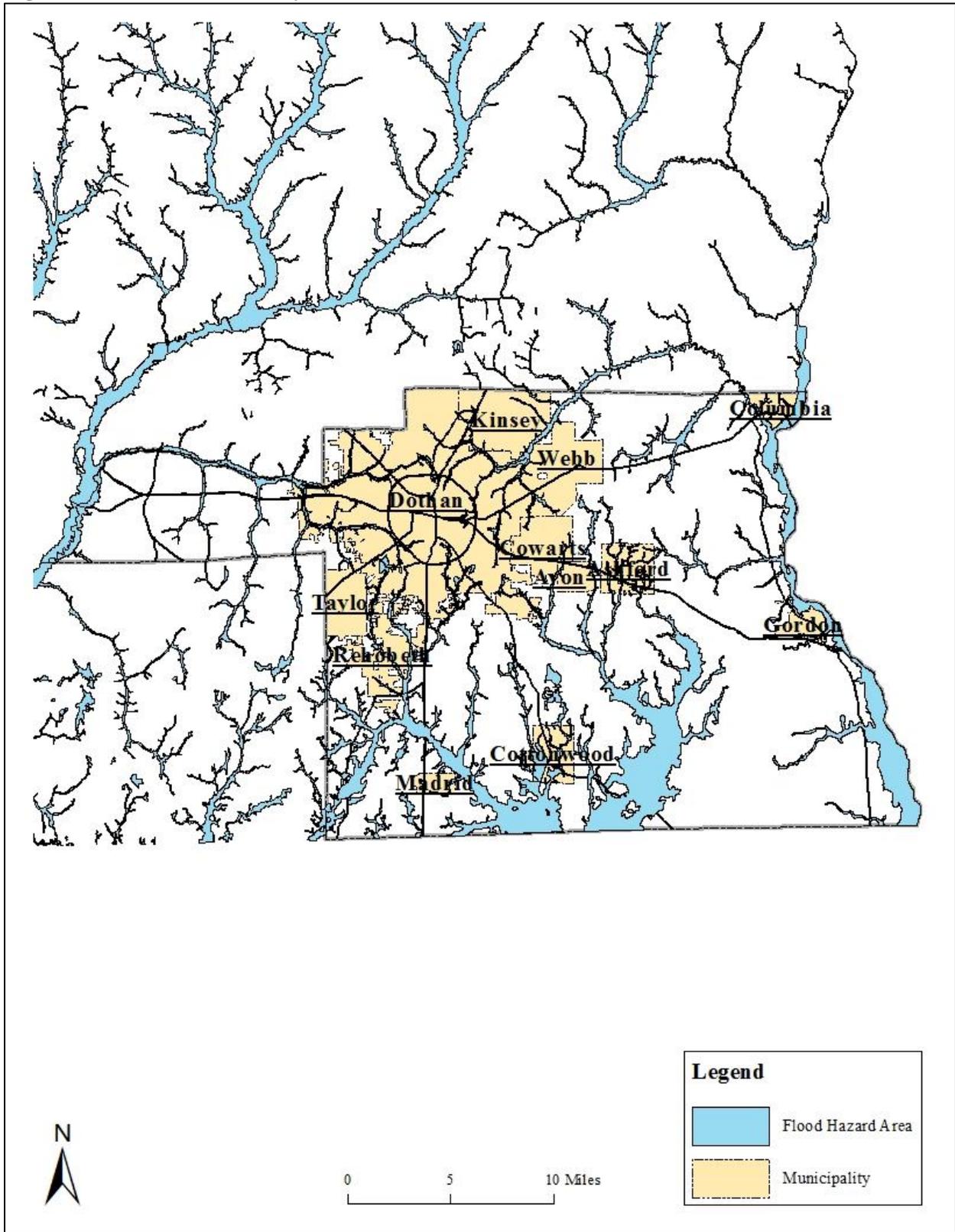
Source: Federal Emergency Management Agency; SEARP&DC (2014)

Figure 4.10: Henry County Flood Hazard Areas



Source: Federal Emergency Management Agency; SEARP&DC (2014)

Figure 4.11: Houston County Flood Hazard Areas



Source: Federal Emergency Management Agency; SEARP&DC (2014)

Extent

The severity of a riverine flood event is typically dependent on several factors, including drainage basin topography, recent precipitation and weather occurrences, and land surface. Periodic riverine flooding on adjacent lands is a natural occurrence. The most common method used to express flood frequency is a percent chance of occurrence in a given year, or annual probability within a FEMA identified floodplain. A 100-year flood event has a one percent (1%) chance of occurring in any year within that floodplain. However, these type floods can occur multiple times during a 100-year period, as described in the Historical Occurrences below. Within the floodplain, a flood event can be expected to inundate the area with several feet of water, which varies across the region, but can be upwards of almost two feet above flood stage as noted by the highest recorded floods described at multiple points in the region. The Pea River at Elba has recorded two flood crests above 43 feet (in 1929 and 1990), which is 13 feet above flood stage. The Choctawhatchee River at Newton has recorded a flood crest of 42 feet in 1929, which is 23 feet above flood stage. The Choctawhatchee River at Geneva has recorded a flood crest of 46.9 feet in 1929, which is almost 24 feet above flood stage. The Chattahoochee River at the George Andrews Lock and Dam has recorded a flood crest of 128 feet in 1929, which is 22 feet above flood stage.

The extent of a flash flooding event varies greatly depending on the local geography and rainfall intensity and duration. Normally the extent of flash flooding is not as widespread as a riverine flooding event, but is more variable due to the lack of advance warning before the occurrence of flooded streets and property damage that may occur during these events.

Historical Occurrences

Information from the National Climatic Data Center reports a total of 136 flood events since 1990 within AEMA Region B. Major events have occurred from both non-hurricane related flooding and hurricane/tropical system-related flooding. Large regional events in the past two decades are summarized below.

In March 1990, a vigorous system of thunderstorms caused excessive rainfall of eight to sixteen inches that fell over the region. This event caused the Choctawhatchee, Pea, and Conecuh rivers to have a 100-year flood event. On March 17, the levee in Elba broke causing six to twelve feet of water to rush into the city, damaging most of the businesses and destroying over 1,000 homes. Overall, 6,000 people in South Alabama had to evacuate their homes and thirteen people drowned, of which nine drowned in the region. The entire planning area was included in a federal disaster declaration.

Tropical Storm Alberto made landfall near Destin, Florida on July 3, 1994. Lack of upper air movement caused the storm to stall over Alabama and Georgia until July 8, 1994. Since the storm did not move far from the Gulf or the Atlantic, it continued to bring moisture from both of these sources into the system and caused major inland riverine and flash flooding. The flooding from Alberto even exceeded the March 1990 flood on the lower Choctawhatchee River. Over one foot of rain fell over the region during this time. There were two deaths attributed to flooding and almost 1,000 homes were damaged. Seven regional counties were included in the federal disaster declaration.

In March 1998, the region was affected by a low pressure system from the Gulf of Mexico that poured over a foot of rain in sections. Hundreds of homes received flood damage and a portion of the levee in Elba failed again causing 2,000 people to evacuate. The Choctawhatchee River at Newton, in Dale County, recorded its third highest crest to that date. Nine regional counties were part of a federal disaster declaration.

More recently, the area was greatly affected by flash flooding from intense rain systems in late March and early April 2009 that caused several millions of dollars of damage to streets, utilities, and buildings throughout the region, with the greatest impacts in Geneva and Houston counties. This situation repeated itself in February 2013, July 2013, and April 2014 as flash flooding impacted multiple areas in the southern portions of the region causing localized property and road damage.

Probability of Future Events

Flooding events of varying extent will remain a constant threat for AEMA Region B. The probability for future riverine flood events based on magnitude and using best available data is illustrated in the Flood Hazard Area maps above, which indicates the regional and jurisdictional areas susceptible to the one-percent annual chance flood (100-year floodplain).

Elba (in Coffee County) has received a disparate impact of damage from historical floods, as it has more than half of the repetitive loss properties and has received more than half of the insured losses in the planning area, as can be seen by data in Chapter 4.8 in Table 4.20 (Historical Summary of Insured Flood Losses) and Table 4.21 (Repetitive Loss Properties (Not Mitigated)). There have been several mitigation projects that have removed structures from the flood hazard areas, but many structures still remain. Other jurisdictions that have incurred large damages are Geneva (Geneva County), Dothan (Houston County), and Enterprise (Coffee County).

The probability for future flash flood events will likely occur more frequently, especially in developed areas. Though there have been several instances of riverine flooding that have especially impacted jurisdictions such as Elba and Geneva, in recent years widespread regional precipitation events have caused widespread flash flooding impacting roads and bridges throughout the planning area. Therefore, the probability of future flood events is considered High throughout the entire planning area.

HIGH WINDS (HURRICANES, TORNADOES, AND SEVERE THUNDERSTORMS)

Background

AEMA Region B is highly susceptible to high wind events from hurricanes, tornadoes, and severe thunderstorms. High wind events may occur any time of year, but occur more often in spring, summer, and fall seasons. A more detailed description of each major contributing storm type follows.

HURRICANES

Background

Hurricanes are cyclones that develop as closed circulation of winds around a low-pressure center. Hurricanes normally have a large diameter and affect a large area. When sustained winds reach the threshold of 39 miles per hour, the tropical system is designated as a tropical storm. The tropical system is designated as a hurricane once it reaches sustained winds of 74 miles per hour. Hurricanes provide a wide spectrum of issues and effects. The intensity and path of a hurricane varies, making the impact of the storm relatively difficult to predict. Though flooding from hurricanes and other tropical systems have historically provided the most widespread regional effects, high winds that occur from these systems have also contributed to regional damage impacts. Tornadoes that are associated with hurricanes may impact the region and are usually weak EF0 to EF1 on the Fujita scale. Sustained winds from hurricanes may cause structural damage to residences, businesses, and infrastructure, including widespread damage to power lines due to trees falling. The primary hurricane season runs from June 1st through November 30th.

Locations Affected

The entire area of AEMA Region B is susceptible to the occurrence of sustained high winds from hurricanes and other tropical events. Southern areas of the region are slightly more susceptible to high winds, but not at a substantial difference from northern locations in the region.

Extent

Hurricane intensity is classified using the Saffir-Simpson Hurricane Wind Scale, which categorizes hurricane events primarily using maximum sustained winds, but also examining barometric pressure readings and potential storm surge. This gives an estimate of the potential damage that will occur from a hurricane. The Saffir-Simpson Scale is shown in Table 4.9.

Table 4.9: SAFFIR-SIMPSON HURRICANE WIND SCALE

Category	Sustained Wind Speed (MPH)	Types of Damage Due to Hurricane Winds
1	74-95	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	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	111-129	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	130-156	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	157 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 Weather Service National Hurricane Center

Hurricanes as intense as Category 5 have made landfall along the Gulf Coast region. Historically, hurricanes have weakened to Category 2 status or lower before tracking through AEMA Region B. However, there is a possibility that a future hurricane event could retain Category 3 winds through portions of the region, as Hurricane Camille in 1969 retained major hurricane status almost 100 miles inland through Mississippi.

Historical Occurrences

According to NOAA historical records, approximately 23 hurricanes or tropical storms have moved directly through AEMA Region B since 1859. This includes 15 tropical storms, five (5) Category 1 hurricanes, one (1) Category 2 hurricanes, and two (2) Category 3 hurricanes, at peak intensity through the region. Since 1975, AEMA Region B has been heavily impacted by four (4) tropical cyclones that tracked directly over the region, and five (5) tropical cyclones that tracked just west or south of the region. A summary of impacts in the region include:

1. Hurricane Eloise (September 1975): Hurricane Eloise made landfall between Destin, FL and Panama City Beach, FL on September 23, 1975. It passed through Geneva County as a Category 3 storm and caused extensive wind damage throughout the region. There was approximately \$100 million worth of property and agricultural damage in Alabama, most of it within the region.

2. Tropical Storm Alberto (July 1994): Tropical Storm Alberto made landfall near Destin, FL on July 3, 1994. The primary impact from Alberto was flooding in the area as the storm was downgraded to a depression and it slowly drifted through the region, though minor wind damage was recorded throughout the region due to the long duration of the storm. Overall, the storm caused approximately \$30 million in damage throughout the region.
3. Hurricane Opal (October 1995): Hurricane Opal made landfall near Pensacola Beach, FL as a Category 3 hurricane on October 4, 1995. Opal retained its hurricane status through much of the region, with winds over 100 miles per hour, and caused over \$100 million of damage within the region.
4. Hurricane Georges (September 1998): Hurricane Georges made landfall near Biloxi, MS, then made a slow eastward path through the Southeast United States. The primary impact from Georges in the region was flooding due to copious amounts of rain.
5. Tropical Storm Barry (August 2001): Tropical Storm Barry made landfall near Santa Rosa Beach, FL and moved northwest through South Alabama, bringing minor wind damage of approximately \$500,000 to the region.
6. Hurricane Ivan (September 2004): Hurricane Ivan made landfall near Gulf Shores, AL on September 16, 2004, then moved north-northeast through Alabama. Much of the region received damage from high winds and flooding rains. Overall, Alabama had at least \$2.5 billion in damage from Ivan.
7. Hurricane Dennis (July 2005): Hurricane Dennis made landfall at Santa Rosa Island, FL on July 10, 2005 and moved north-northwest through Alabama. Several areas within the region received wind damage.
8. Hurricane Katrina (August 2005): Hurricane Katrina made landfall in Louisiana on August 29, 2005 and moved north into Mississippi. Katrina caused several areas of tree damage within the region. One of the major effects of Katrina was the influx of evacuees from areas further west.
9. Tropical Storm Fay (August 2008): Tropical Storm Fay made landfall near Apalachicola, FL on August 23, 2008 and moved west-northwest across the Florida Panhandle and South Alabama. Fay caused some heavy rain and numerous reports of downed trees and power lines.
10. Hurricane Isaac (August 2012): Hurricane Isaac made landfall near Port Fourchon, LA on August 28, 2012 and moved north-northwest across Louisiana. Several areas in the region received heavy rains and wind damage.

Probability of Future Events

Hurricanes and other tropical events with high winds are an annual threat for AEMA Region B, due to being near the Gulf Coast. In the past 150 years, a tropical cyclone has passed through the region approximately once every six years, which does not include tropical cyclones just outside the region that provide impacts (e.g. Hurricane Ivan). Therefore, the probability of future hurricane events is High.

TORNADOES

Background

A tornado is a rapidly rotating funnel of air that extends to the ground from clouds. Tornadoes are one of the least predictable weather events, as they can develop very rapidly with little advance warning. Tornadoes do not cover a large spatial area, but may create moderate to extensive damage to structures and be deadly in the areas impacted. Debris may block streets and access to the damaged area may be an issue. Flat tires on emergency vehicles will be common due to this debris. The loss of power and communications to the affected areas will also be common.

Locations Affected

The entire planning area is susceptible to tornadoes. Tornadoes can be assumed to potentially affect any location in the region, due to occurrences being randomly located and the impossibility of predicting specific areas of tornado strikes. Areas within AEMA Region B have tornado occurrences throughout the year, though there are two discernable seasons, spring and fall.

Extent

Tornado intensity is classified using the Enhanced Fujita (EF) Scale, which is an update to the original Fujita Scale, implemented in February 2007 (Table 4.10). The EF Scale is still primarily a wind estimate indicator that is based on three-second gust derived by the levels of damage that occur during a tornado event. The planning area has had three (3) instances of F/EF-4 tornadoes in recorded history.

Table 4.10: ENHANCED FUJITA SCALE

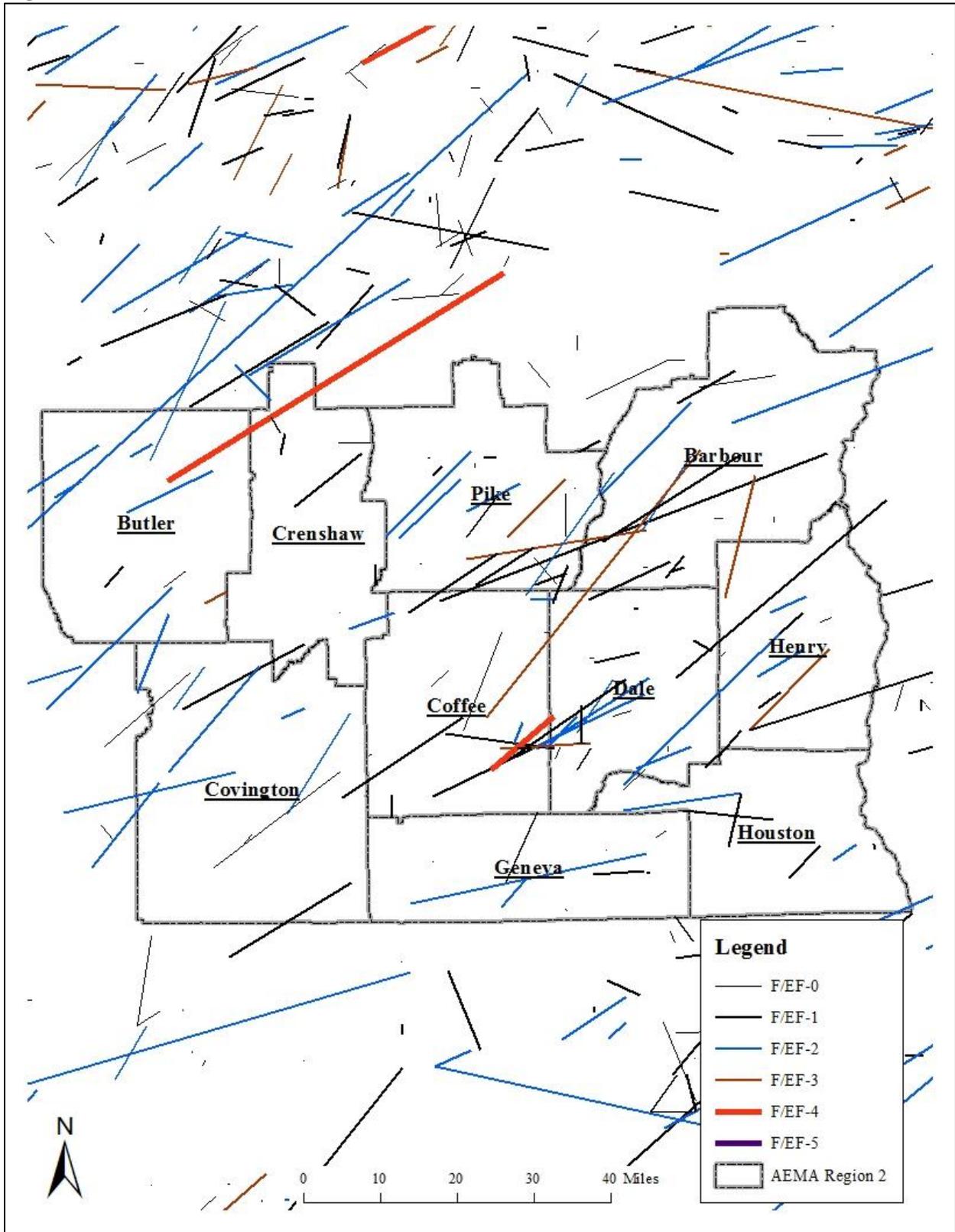
F Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	Damage Description
0	45-78	0	65-85	LIGHT DAMAGE: Some damage to chimneys; tree branches broken off; shallow-rooted trees pushed over; sign boards damaged.
1	79-117	1	86-110	MODERATE DAMAGE: The lower limit is the beginning of hurricane wind speed. Roof surfaces peeled off; mobile homes pushed off foundations or overturned; moving autos pushed off roads.
2	118-161	2	111-135	CONSIDERABLE DAMAGE: Roofs torn off from houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.
3	162-209	3	136-165	SEVERE DAMAGE: Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.
4	210-261	4	166-200	DEVASTATING DAMAGE: Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown; large missiles generated.
5	262-317	5	Over 200	INCREDIBLE DAMAGE: Strong framed houses lifted off foundations and carried considerable distances to disintegrate; automobile-sized missiles fly through air in excess of 100 yards; trees debarked.

Source: National Weather Service

Historical Occurrences

According to the National Weather Service (Birmingham Forecast Office) Tornado Database, since 1950 there have been a total of 264 documented tornado events in the planning area, resulting in 19 fatalities, 402 injuries, and over \$370 million in estimated property damage. Almost 74% of documented tornadoes have been classified as F0/EF0 or F1/EF1, with 21% classified as F2/EF2, 5% classified as F3/EF3, and 1% classified as F4/EF4. There have never been any documented tornadoes classified as F5/EF5 in the region (Figure 4.12).

Figure 4.12: Historical Tornado Tracks



Source: National Weather Service; SEARP&DC (2014)

Table 4.11 Annual Tornado Summary – AEMA Region B

Year	Tornadoes	Fatalities	Injuries	Damages	F0/EF0	F1/EF1	F2/EF2	F3/EF3	F4/EF4	F5/EF5
1950	0	0	0	\$ -						
1951	0	0	0	\$ -						
1952	0	0	0	\$ -						
1953	2	0	1	\$ 27,500	0	1	1	0	0	0
1954	4	0	6	\$ 55,300	0	1	3	0	0	0
1955	2	0	5	\$ 5,025,000	0	1	1	0	0	0
1956	3	0	2	\$ 50,000	0	1	1	1	0	0
1957	8	0	3	\$ 777,750	1	2	5	0	0	0
1958	2	0	0	\$ 27,500	0	1	1	0	0	0
1959	1	0	0	\$ 25,000	0	0	1	0	0	0
1960	1	0	0	\$ -	1	0	0	0	0	0
1961	3	0	2	\$ 300,000	0	1	2	0	0	0
1962	3	0	0	\$ 52,500	0	1	2	0	0	0
1963	1	0	0	\$ 250,000	0	1	0	0	0	0
1964	5	0	3	\$ 80,000	1	2	2	0	0	0
1965	1	0	2	\$ 25,000	0	0	2	0	0	0
1966	1	0	0	\$ 25,000	0	1	0	0	0	0
1967	0	0	0	\$ -						
1968	1	0	0	\$ 250,000	0	1	0	0	0	0
1969	4	2	11	\$ 527,500	0	2	1	0	1	0
1970	0	0	0	\$ -						
1971	6	0	0	\$ 100,250	0	1	1	3	1	0
1972	3	4	90	\$ 1,250,000	0	0	2	1	0	0
1973	8	0	41	\$ 10,077,500	0	3	2	3	0	0
1974	10	0	1	\$ 380,500	2	3	3	2	0	0
1975	3	0	0	\$ 50,000	1	2	0	0	0	0
1976	3	0	0	\$ 502,500	1	1	1	0	0	0
1977	1	0	0	\$ 2,500	0	1	0	0	0	0
1978	2	0	0	\$ 50,000	1	1	0	0	0	0
1979	3	0	4	\$ 275,250	1	0	2	0	0	0
1980	6	0	7	\$ 875,000	0	3	3	0	0	0
1981	2	0	5	\$ 2,500,250	0	2	0	0	0	0
1982	1	0	0	\$ 25,000	0	1	0	0	0	0
1983	3	0	2	\$ 500,300	0	1	1	1	0	0
1984	8	0	18	\$ 25,375,000	1	4	3	0	0	0
1985	2	0	0	\$ 50,000	0	2	0	0	0	0
1986	3	0	7	\$ 8,250,000	0	1	1	1	0	0
1987	0	0	0	\$ -						
1988	2	0	0	\$ -	1	1	0	0	0	0
1989	6	0	0	\$ 5,275,000	1	5	0	0	0	0
1990	2	0	38	\$ 5,000,000	0	2	0	0	0	0

Year	Tornadoes	Fatalities	Injuries	Damages	F0/EF0	F1/EF1	F2/EF2	F3/EF3	F4/EF4	F5/EF5
1991	0	0	0	\$ -						
1992	4	0	0	\$ 2,575,000	3	1	0	0	0	0
1993	0	0	0	\$ -						
1994	2	0	0	\$ 550,000	1	0	1	0	0	0
1995	12	0	3	\$ 180,000	11	1	0	0	0	0
1996	2	0	0	\$ 170,000	0	2	0	0	0	0
1997	11	0	12	\$ 2,984,000	2	7	2	0	0	0
1998	21	0	3	\$ 3,983,000	10	11	0	0	0	0
1999	2	0	0	\$ 160,000	1	1	0	0	0	0
2000	4	1	9	\$ 7,545,000	1	1	2	0	0	0
2001	11	2	31	\$ 4,312,000	6	5	0	0	0	0
2002	6	1	31	\$ 5,178,000	3	2	1	0	0	0
2003	1	0	0	\$ 200,000	0	1	0	0	0	0
2004	5	0	0	\$ 13,000	5	0	0	0	0	0
2005	7	0	4	\$ 1,030,000	5	1	1	0	0	0
2006	8	0	3	\$ 2,866,500	5	1	2	0	0	0
2007	10	9	56	\$ 264,165,000	5	4	0	0	1	0
2008	18	0	0	\$ 5,233,000	10	7	1	0	0	0
2009	3	0	0	\$ 150,000	3	0	0	0	0	0
2010	1	0	0	\$ -	1	0	0	0	0	0
2011	4	0	0	\$ 1,890,000	1	0	3	0	0	0
2012	15	0	2	\$ 222,000	8	6	1	0	0	0
2013	0	0	0	\$ -						
2014	1	0	0	N/A	0	1	0	0	0	0

Source: National Weather Service Birmingham, Alabama Tornado Database (2014)

Probability of Future Events

Since 1950, AEMA Region B has averaged approximately five (5) tornado occurrences each year. Based on this historical data, the annual probability for tornado events are High.

SEVERE THUNDERSTORM (HIGH WINDS / HAIL / LIGHTNING)

Background

Thunderstorms are weather events that form through the clash of different air masses, which may cause storms that occur singularly, in lines, or in clusters. The effects of thunderstorms may impact a small area or multiple jurisdictions. Thunderstorm events may cause straight-line winds, hail, and lightning, and if long-lasting or severe, may cause flooding or tornadic activity. Severe thunderstorms may produce damage equivalent to tornadoes over a larger spatial area. Severe thunderstorm events may occur year-round in the region, but the peak of severe thunderstorm events are in spring with a smaller peak in fall.

Straight-line winds from severe thunderstorms may cause wind gusts of hurricane strength that creates property damage, downed trees, and downed power lines.

Hail is ice crystals that sometimes accompany thunderstorms. Hailstones are formed by accumulation due to rapid rising of warm air with subsequent cooling of the air mass. More variance in air temperature may lead to increased diameter of hailstones. When the hailstones reach the ground, they have the potential to cause minor to moderate property damage, especially to roofs and vehicles.

Lightning is a discharge of electrical energy that creates a “bolt” that may stretch from clouds to the ground. An actual lightning strike only affects a small area, though many storms have thousands of lightning strikes that occur during an event. According to the National Weather Service, lightning will follow a path of least resistance, typically striking the tallest object in a given area, which could include a person, a power pole, or trees. Lightning may cause building damage due to starting a fire, deaths through striking a person directly or in the immediate vicinity, and may cause wildfires in some cases.

Locations Affected

The entire planning area is uniformly susceptible to the occurrence of severe thunderstorms. Severe thunderstorms can be assumed to potentially affect any location in the region, due to occurrences being randomly located and the impossibility of predicting specific areas of storm effects.

Extent

Severe thunderstorms are defined by the National Weather Service as having wind speeds of 58 miles per hour or higher, producing hail at least three quarters inch (3/4”) in diameter, or possessing tornadic capabilities. The effects of severe thunderstorms will have varying spatial effects throughout the planning area from widespread to localized impacts. Severe thunderstorms with straight line winds that affect AEMA Region B can create wind gusts up to the equivalence of an EF1 tornado.

Historical Occurrences

Severe thunderstorms, through high winds, hail, or lightning, have caused at least 520 instances of documented damages in the planning area between 2009 and 2014 causing three (3) deaths, ten (10) injuries, and approximately \$3 million worth of damage.

According to the National Climatic Data Center (NCDC), there have been 72 recorded hail events on 27 days since 2009. NCDC does not make clear how much these events caused in property damage.

The NCDC has also recorded 16 lightning events with documented negative impacts, causing one (1) death, two (2) injuries, and an estimated \$349,000 in property damage from 2009 through 2013.

For straight-line winds, the NCDC has recorded 432 high wind events with two (2) deaths, eight (8) injuries, and an estimated \$2.6 million in property damage since 2009 within the planning area.

Due to the isolated nature of many of these events, it is probable that many other damaging occurrences of high winds, hail, and lightning events have occurred, but have gone unreported or unrecorded.

Probability of Future Events

Severe thunderstorm events that cause property damage and potential casualties may affect the planning area throughout the year and have averaged multiple occurrences a year in recent history. This recent history of damaging events causes AEMA Region B to have a High probability of severe thunderstorm occurrences.

LANDSLIDE

Background

A landslide is a gravity-aided downward and outward movement of soil, rock, and vegetation that lies normally on a sloped surface. Landslides can occur from both natural and human-induced events. Common causes are composition changes on the surface, excessive rain, and construction practices.

Typically, areas that are prone to landslides are on or at the base of steep slopes, base of drainage channels, developed hillsides where leach field septic systems are used, and near previous landslide areas.

Locations Affected

The United States Geological Survey (USGS) documents that the planning area has low incidence and low susceptibility of landslides occurring (Figure 4.13), which means that less than 1.5% of the area is potentially affected by a landslide. There is little documentation from the USGS, the Geological Survey of Alabama (GSA), previous local plans, or the public regarding historical landslide incidents.

Extent

There is no magnitude scale for landslides. Therefore, defining the extent of landslides is subjective and difficult to predict. Due to the lack of susceptibility throughout the planning area, the extent of landslide incidents are estimated to be primarily isolated damages to structures and infrastructure.

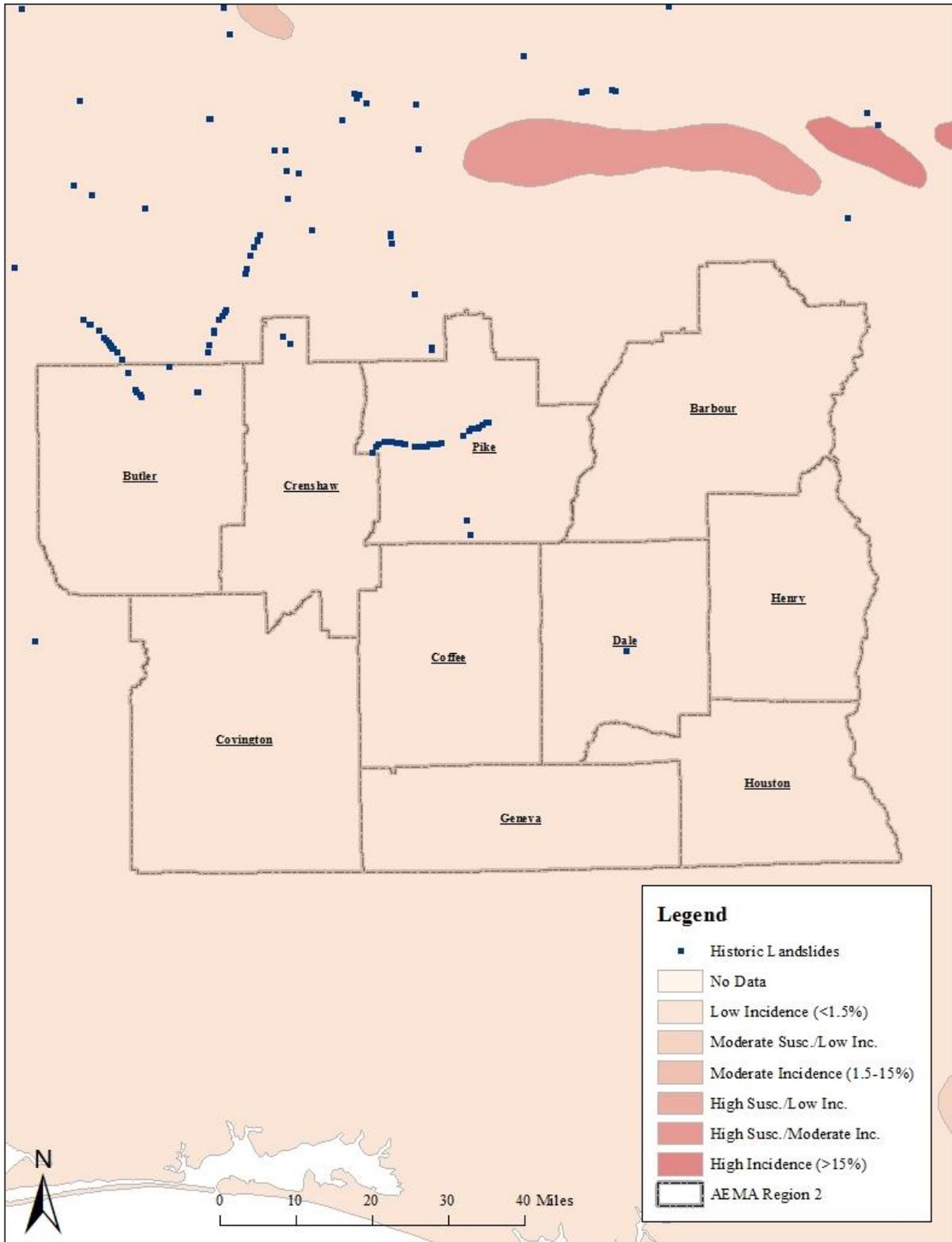
Historical Occurrences

The GSA has a map that displays historical landslides (data used in Figure 4.13). However, there is no date listed on the GSA map detailing time frame, so it is from an indeterminate amount of time. For the planning area, Butler County is shown to have had eight (8) incidents. However, there is no specific documentation of any of these landslide events. It is believed that each incident was very localized and minor in nature. There are no damage estimates available for the recorded incidents.

Probability of Future Events

Based on historical information and susceptibility data from the USGS and the GSA, the probability of future landslide events is Low. It is anticipated that most future incidents of landslides will be due to human activity and not due to natural events.

Figure 4.13: AEMA Region B Landslide Incidence and Susceptibility



Source: National Atlas of the United States; SEARP&DC (2014)

LAND SUBSIDENCE / SINKHOLES

Background

According to the Geological Survey of Alabama (GSA), the most common cause of land subsidence in Alabama is development of sinkholes in areas that have underlying soluble limestone, dolomite, or salt rocks, such as karst terrain. Activities that can cause land subsidence, or sinkholes, include a change in the water table level, change in groundwater flow characteristics, and surface loading that puts pressure on the land surface, including human-induced causes.

Any sinkholes formed in the planning area would be regarded as minor and research has not shown any reports of damage in recent history, as there were no reports of land subsidence damage caused by the excessive droughts of the past several years.

Locations Affected

The Alabama State Hazard Mitigation Plan states that the GSA considers sinkholes to be more prevalent in northern Alabama than in the planning area. The United States Geological Survey (USGS) shows there are areas of carbonate rock and karst terrain within the planning area's underlying geology. There is little documentation from the USGS, the Geological Survey of Alabama (GSA), previous local plans, or the public regarding historical land subsidence incidents or impacts in the planning area.

Extent

There is no magnitude scale for land subsidence or sinkholes. Therefore, defining the extent of these hazards is subjective and difficult to predict. Due to the lack of historical data pertaining to the damage of land subsidence in the planning area, the extent of land subsidence incidents are estimated to be primarily isolated damages to structures and infrastructure.

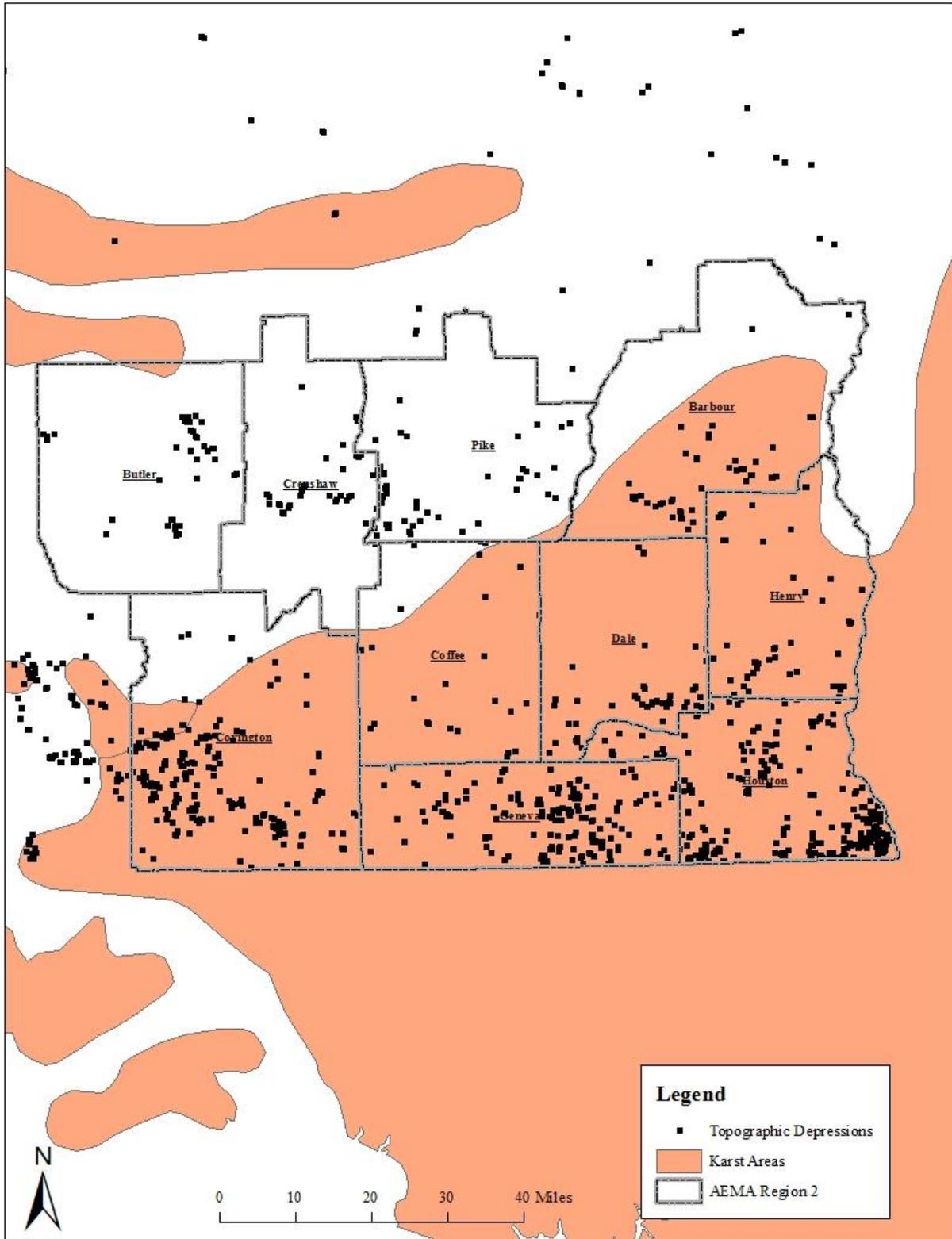
Historical Occurrences

The GSA displays areas of topographic depressions mapped from elevations from topographic maps, much of which are presumed natural sinkholes (Figure 4.14). However, there is no date listed on the GSA map detailing time frame, so it is from an indeterminate amount of time. It is believed that each areas of land subsidence have been very localized and minor in nature. There are no damage estimates available for the recorded incidents.

Probability of Future Events

Based on historical information and susceptibility data from the USGS and the GSA, it is difficult to quantify any future incidence of land subsidence. Based on research of land subsidence in Alabama and limited documentation of previous occurrences, it is believed that future occurrences would provide very minimal impact. There have been no reports of land subsidence damage in the past several years, even though there have been multiple periods of drought and flooding on a regional scale. The probability for future land subsidence incidents would be regarded as Low.

Figure 4.14: AEMA Region B Topographic Depressions and Karst Terrain



Source: Geological Survey of Alabama (GSA); SEARP&DC (2014)

WILDFIRE

Background

Wildfires occur from debris burning and other incendiary causes, which can spread throughout forested areas and affect development within wildland urban interface (WUI) areas. Fuel sources, such as trees and grass, and weather, such as dry periods or lightning strikes, can contribute to wildfires in Southeast Alabama.

Locations Affected

Fire Occurrence Areas maps produced by the Alabama Forestry Commission (Figures 4.15 through 4.21), referenced in multiple periods in 2014 and 2015, illustrates that much of the planning area has a Low occurrence rating, with Medium occurrence ratings spread in several locations. There is no date listed on the Alabama Forestry Commission maps detailing time frame. There are isolated areas of High occurrence in every county but Houston and very isolated Extreme occurrence ratings in Butler and Covington counties.

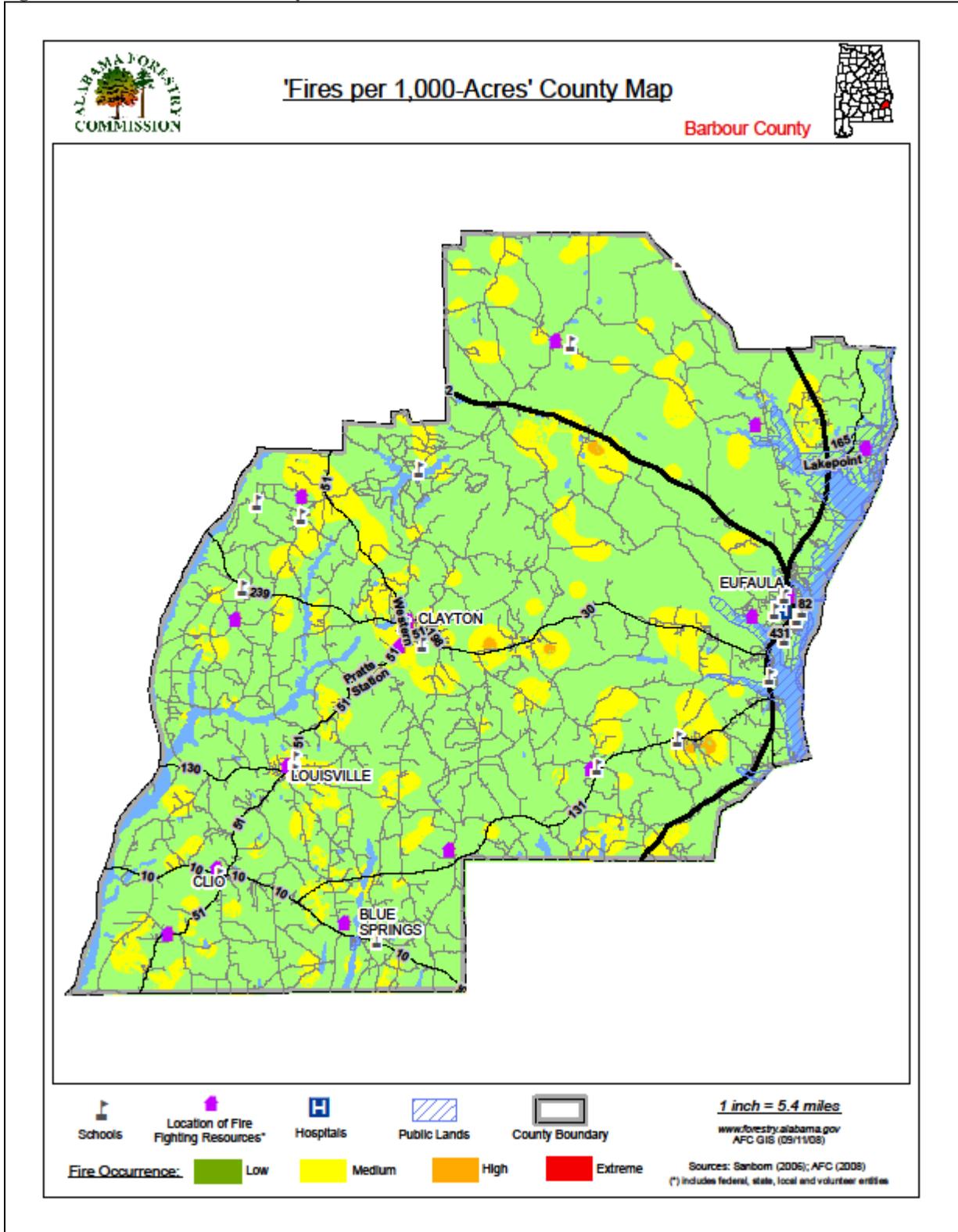
Extent

The magnitude of wildfire events are often classified as total number of acres burned and destructive impacts to people and property, including house fires and casualties. These elements are greatly dependent on other factors, such as weather conditions, available fuel, topography, and existing wildfire mitigation capabilities. The planning area has been fortunate to not have any major recorded wildfires in recent history. As population and development increases in higher growth areas, especially near Dothan and Enterprise, the wildland urban interface should be monitored for potential wildfire effects. The combination of cultivated fields, wide roadways, and streams serve as both manmade and natural firebreaks.

Historical Occurrences

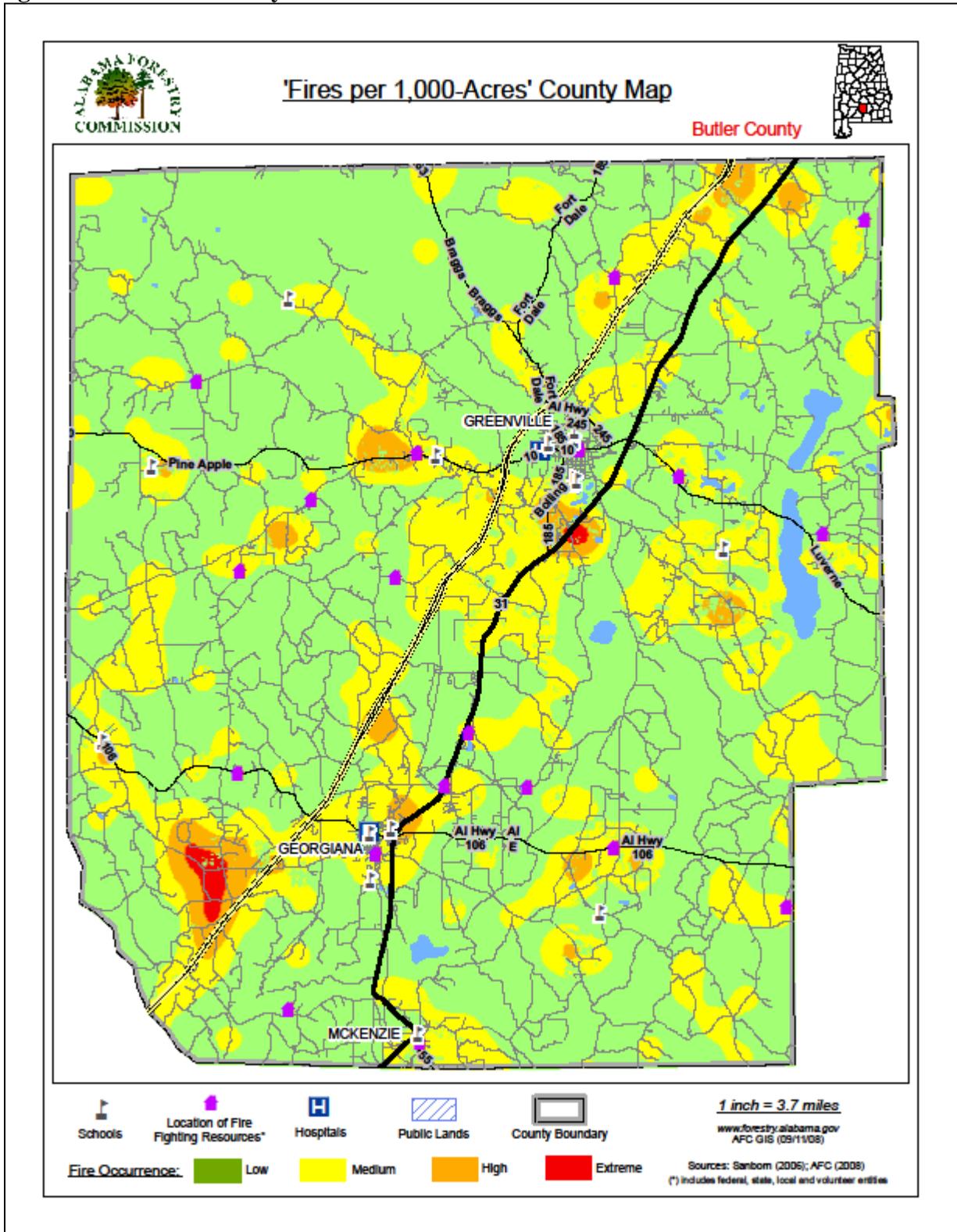
Most locations in the planning area have historical fire occurrences of Low or Medium, according to the Alabama Forestry Commission shown in Figures 4.15 through 4.21. This data is based on historical fire ignitions and is reported as the number of fires that occur per 1,000 acres. In unincorporated Barbour County, there are a few isolated areas of High occurrence. Unincorporated Butler County has several pockets of High occurrence and an Extreme occurrence in two locations, one south of Greenville and the other southwest of Georgiana. Unincorporated Coffee County only has one isolated area of High occurrence, northeast of Elba. Covington County has two isolated areas of Extreme occurrences, one north of Red Level and the other east of Onycha, along with several isolated areas of High occurrence. Geneva County has only two isolated areas of High occurrence. Henry County also has only two isolated areas of High occurrence. All of Houston County is classified as either Low or Medium occurrence. The areas where wildfires occur have been primarily very rural areas of each county. There have been no recorded wildfires in the National Climatic Data Center's (NCDC) Storm Events Database

Figure 4.15: Barbour County Fire Occurrence Areas



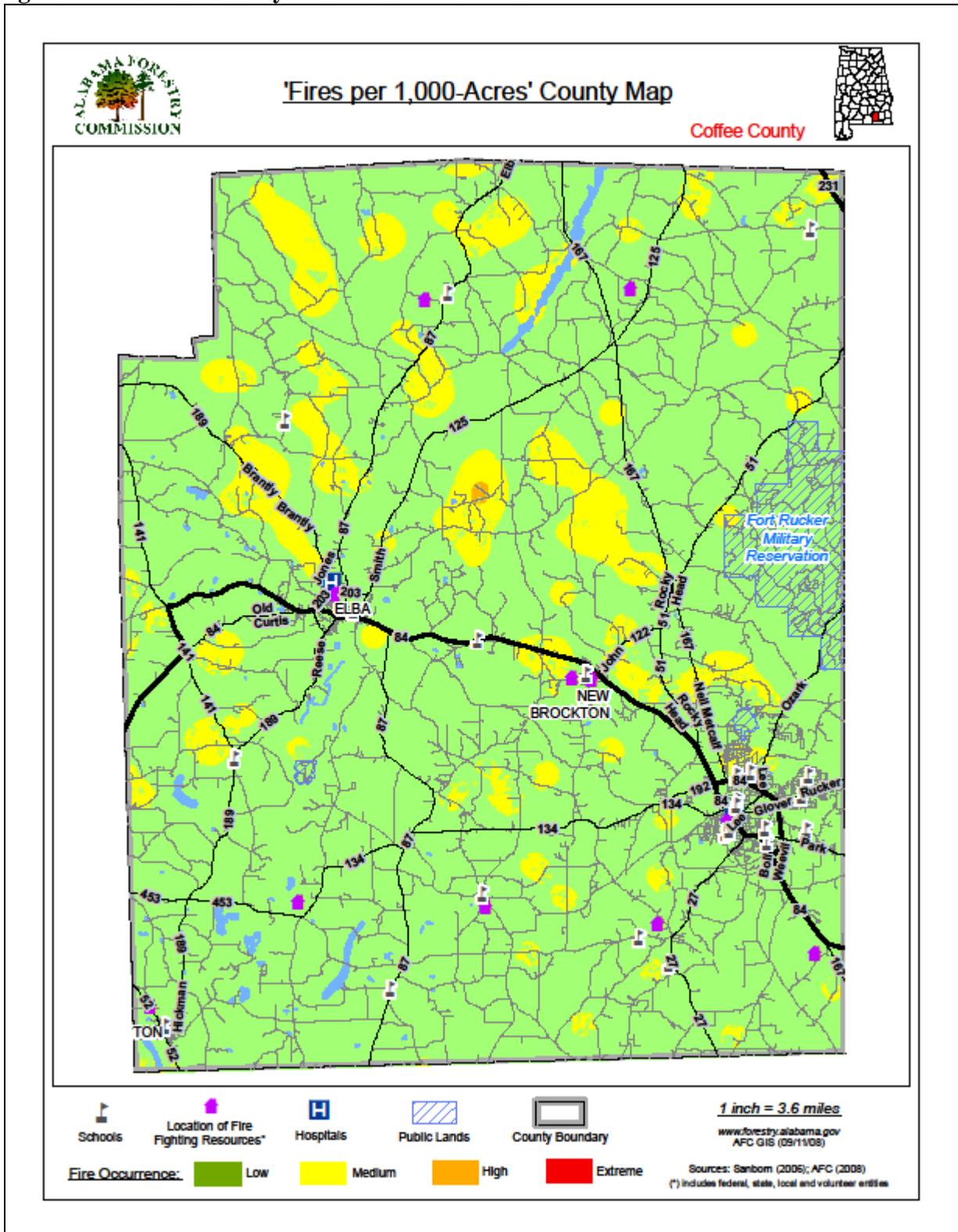
Source: Alabama Forestry Commission (2014)

Figure 4.16: Butler County Fire Occurrence Areas



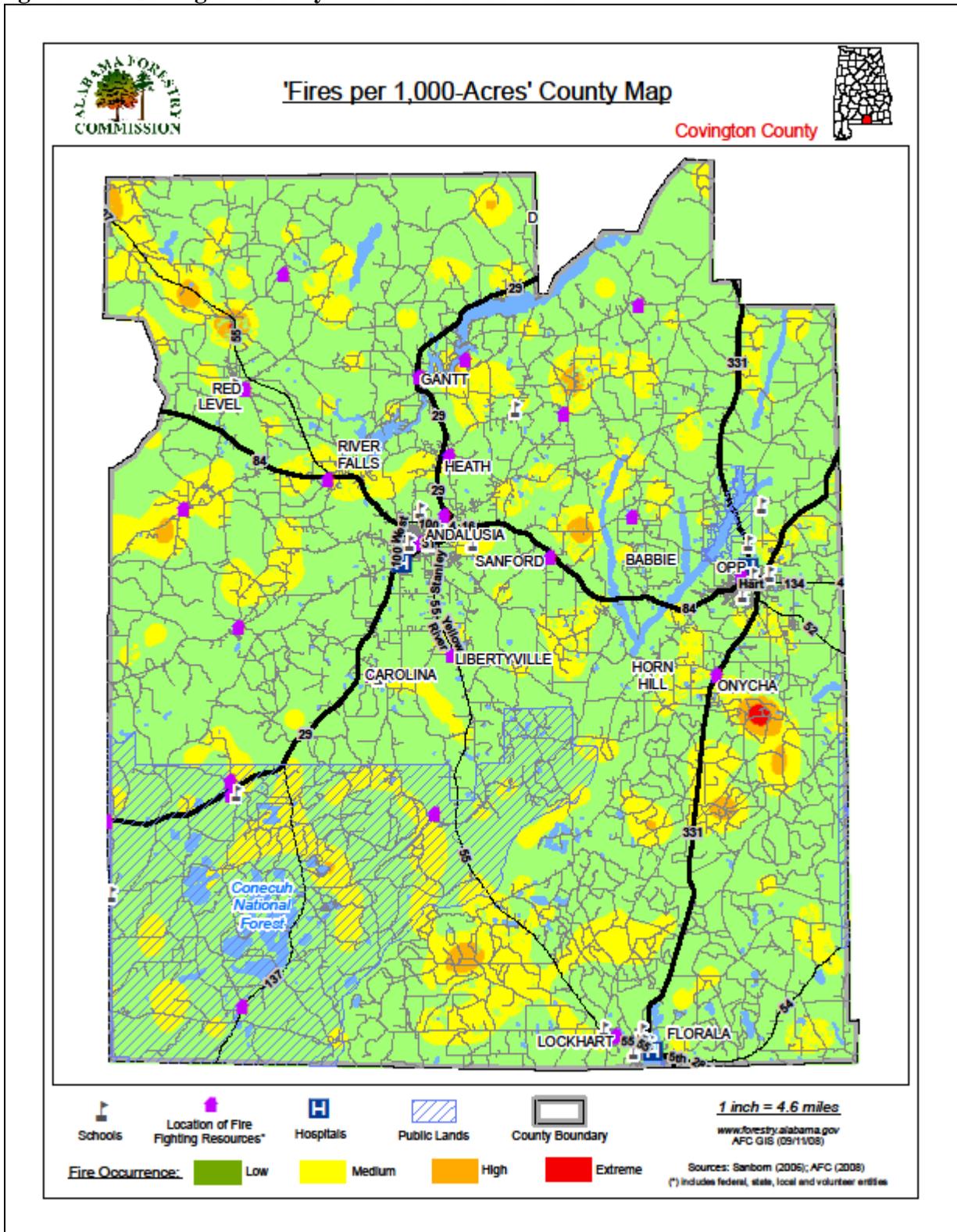
Source: Alabama Forestry Commission (2014)

Figure 4.17: Coffee County Fire Occurrence Areas



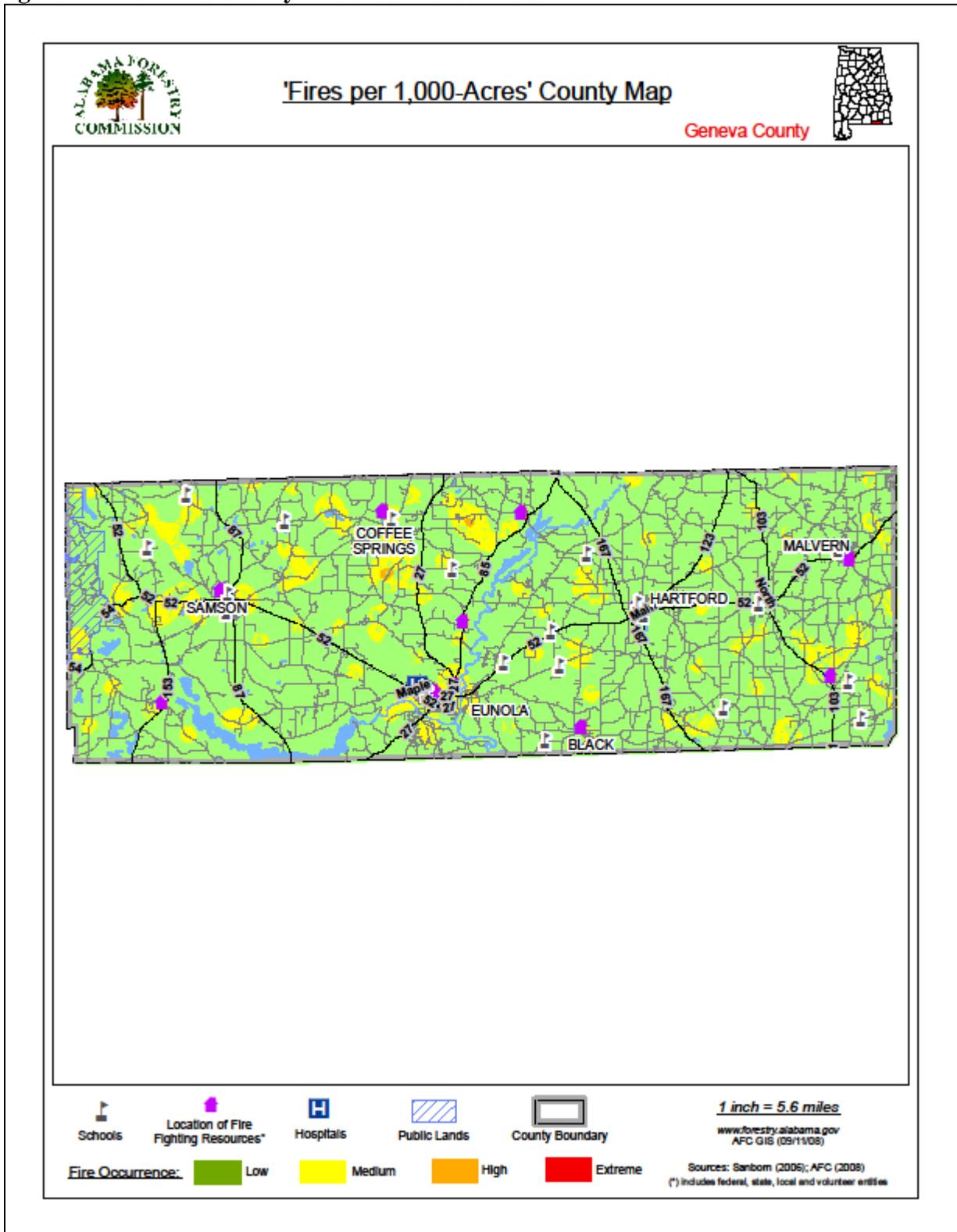
Source: Alabama Forestry Commission (2014)

Figure 4.18: Covington County Fire Occurrence Areas



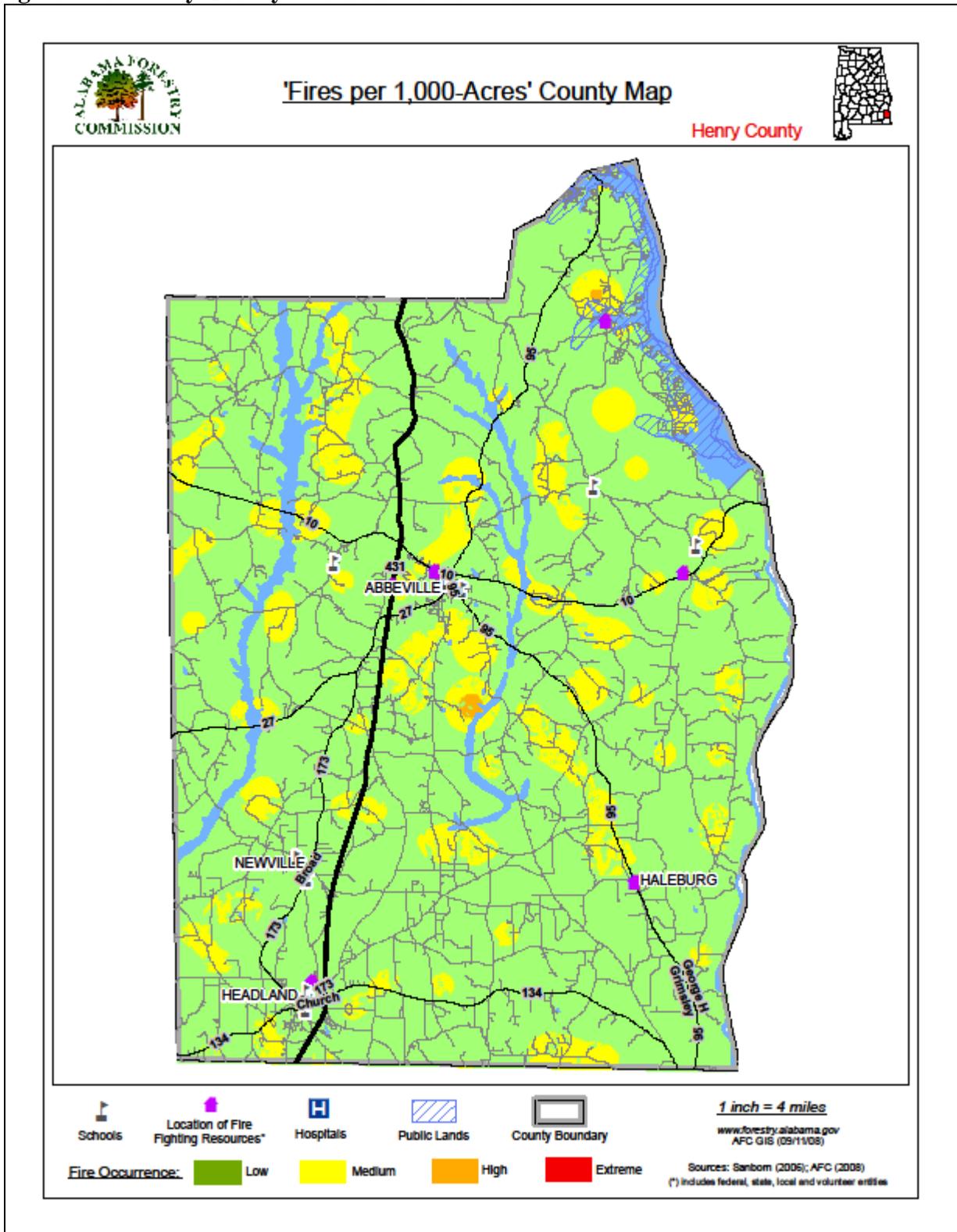
Source: Alabama Forestry Commission (2014)

Figure 4.19: Geneva County Fire Occurrence Areas



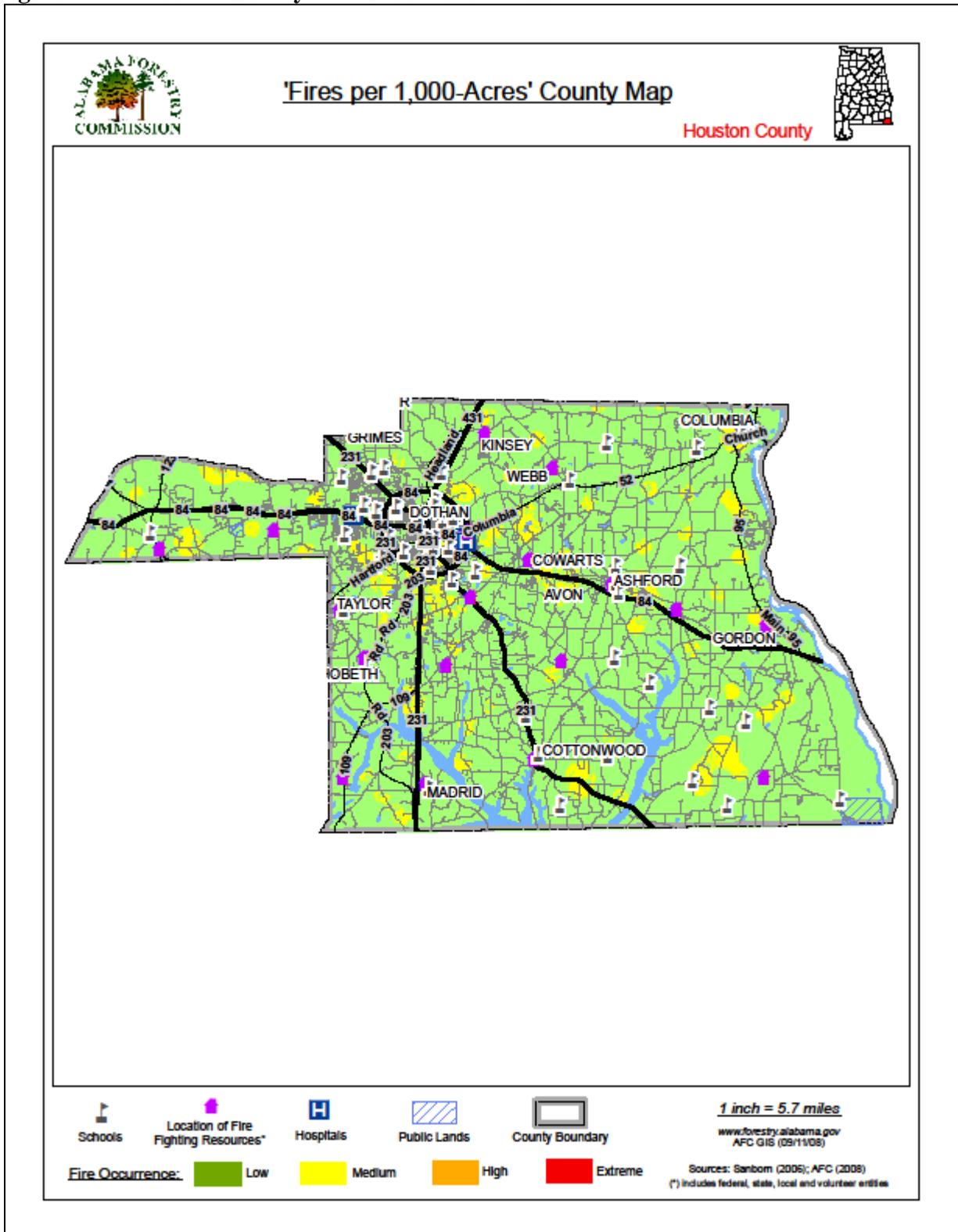
Source: Alabama Forestry Commission (2014)

Figure 4.20: Henry County Fire Occurrence Areas



Source: Alabama Forestry Commission (2014)

Figure 4.21: Houston County Fire Occurrence Areas



Source: Alabama Forestry Commission (2014)

Probability of Future Events

The Alabama Forestry Commission classifies all planning area municipalities as having a Moderate risk rating for wildfires, with the exception of Florala and Onycha in Covington County, which are rated as High risk rating. These ratings were developed based on comparing housing density to a susceptibility index. The information is a bit dated, so wildfire information and susceptibility data will be adjusted in future plan updates. Though multiple isolated wildfires occur each year in the planning area, these have been minor in nature and have not greatly impacted the planning area. Therefore, the entire planning area will be regarded to have a Medium probability for major damage from wildfire events.

WINTER STORM

Background

Winter storms normally cause heavy amounts of frozen precipitation (snow, freezing rain, and ice), windy conditions, and extreme cold. The effect of winter storms on a community depends on how equipped the community is to handle the storm, as winter storms can cause power outages, transportation problems, and collapsed roofs on structures. These events may make roads impassible and disrupt power. A snowfall of two inches or more is considered heavy snow for Alabama, especially in the southeastern portion of the state. Loss of communications is a common occurrence during a severe winter storm. The related emergencies include hypothermia and other cold-related maladies. Fires due to improvised heating apparatuses are common, as is carbon monoxide poisoning. There usually is sufficient warning for the public to take protective steps. The facilitation of emergency heating and food is critical. A 72- hour emergency kit is crucial in this emergency. Emergency heating centers will be essential and rescue of stranded motorists may be a priority. These events are typically short lived in this region. Damage to crops such as timber can be devastating. Emergency power and heating are essential for shelters and other critical facilities. The ability to remove debris such as trees with chain saws and heavy equipment is essential. The ability to apply sand or salt to maintain roads in a passable state is important to allow emergency vehicles and evacuation of affected areas. This type of emergency may affect a large segment of the population and strain shelter resources.

Locations Affected

Areas in southern Alabama receive winter storms very infrequently and have had only minor recorded damages. The entire planning area is susceptible to a winter storm if one were to develop this far south. The northern areas of the planning area, such as Barbour or Butler counties would most likely receive slightly greater impact from a winter storm than areas near the Florida state line.

Extent

Winter storms may have varying effects on the planning area. The few winter storms documented in the area has caused a few inches of ice and/or snow, which may cause tree and property damage, and exacerbate dangerous road conditions. Normally in a winter storm event, most non-essential business close for a few days until the weather modifies, which causes some measure of economic loss.

Historical Occurrences

In February 1973, the planning area received approximately two to nine inches of snow and ice that left many areas without power and roads impassable. The “Blizzard of 1993” also brought some winter weather effects and frigid cold temperatures to the area. There were minor winter weather events over portions of the planning area in 2002 and 2010. Most recently, in January 2014, a system moved through that caused a layer of one to two inches of mixed precipitation (mostly ice) to freeze on roads throughout the region. This system caused most normal operations to shut down at least two days and caused some property damage due to falling trees and frozen pipes in the region.

Probability of Future Events

Due to the infrequency of winter storm occurrences in the planning area and their short duration of effects, there is a Low probability for major damage caused by a winter storm.

4.3 Technological and Human-Caused Hazards

AEMA Region B has susceptibility to technological and human-caused hazards. General discussions of hazards that may affect the planning area are described in the subsections below.

Structure Fire

Prevention and control are requirements in the building codes and zoning ordinances in many jurisdictions. The most vulnerable structures to fire other than wildfires would likely be those in commercial districts of each jurisdiction. This is primarily due to the close proximity of the structures in these areas. The larger jurisdictions in the planning area are generally well-equipped to deal with structure fires that occur in their areas. Rural jurisdictions are primarily served by Volunteer Fire Departments that are continuing to improve the service to their community and have varying ISO ratings and are utilizing funds provided by local legislation and FEMA grants.

Hazardous Materials

There are several areas within the planning area with many industries and commercial businesses. Many of these businesses and industries handle various types and quantities of hazardous materials. Hazardous materials are an ongoing potential hazard due to the large amount of transporting the materials throughout the region. Areas near railroad tracks, especially the CSX line that bisects the planning area, are particularly vulnerable to HM incidents because of the shipping of hazardous materials through the commercial and residential districts. A rail accident with hazardous materials would be catastrophic in regards to loss of life and property damage. There would be little to no time to evacuate the endangered area. Most jurisdictions have a warning network that quickly notifies the public and gives them time to evacuate or escape a rapidly developing incident. Hazardous materials are tracked through Local Emergency Planning Committees and information is disseminated to local first responders.

Terrorism

FEMA classifies terrorism as using illegal force or violence against persons or property for purposes of intimidation or ransom. Groups that are both domestic and foreign in nature, with differing political or religious views may aim for terrorism tactics. The threat of terrorism places certain facilities in greater risk, including government facilities, high profile areas, and utility infrastructure. Different types of terror acts are described below.

Biological or Chemical Attack: Liquid or other contaminants that can be dispersed to cause casualties and negative psychological impact.

Conventional Attack: Active shooter type of situation that is normally an individual or small group that create havoc in a particular area for different means.

Cyber Attack: Normally used to gain information or negatively affect operations due to intrusion into computer systems.

Hostage Situation: Holding people against their will in order to achieve demands, which can be on the realm from international political situations to local domestic situations.

State and local agencies regularly conduct exercises and plan for this potential to incorporate Emergency Service Functions and the State, Federal Emergency Response Plan, and the National Incident Command System. Many local utilities have undertaken a risk assessment of their water system and sewer facilities to determine if any additional security measures are needed for implementation of those mitigating features.

Radiological

The Joseph M. Farley Nuclear Plant (FNPP) is located in Houston County just 18 miles east of Dothan, near Gordon. The plant began operation in December 1977. Nuclear power plants will occasionally experience incidents involving the possibility of releases of radioactive materials. These incidents may occur at any time with varying degrees of seriousness. The release of radioactive material from Plant Farley could affect the populace within a 10-mile radius and food ingestion within a 50-mile radius of FNPP. The most severe circumstances at Plant Farley could possible require selective or general evacuation out of the Plume Exposure Pathway. Houston County has over 8,000 people that live in the 10-mile Emergency Planning Zone (EPZ). Of that, slightly over one percent (1%) are special needs population. The jurisdictions that are in the EPZ are Ashford, Gordon, Webb, Columbia, and a great portion of east side of unincorporated Houston County. Henry County is also involved in the planning process, as Farley could affect southeastern portions of its area. Each level of government (local, county, state, and federal) is responsible for the safety and welfare of the populace to the extent of its capabilities. Therefore, pre-disaster mitigation planning is an ongoing process by all government agencies, and Southern Nuclear Operating Co. Two exercises are conducted each year by all agencies, with a FEMA graded exercise every other year. Training sessions to meet objectives are conducted throughout the year for all agencies. Plant Farley is considered a high-risk target. However, as discussed, planning and preparation is complete, and evaluated on a daily, monthly, and yearly basis.

4.4 Vulnerability Overview

It should be noted that this version of the Regional Hazard Mitigation Plan was unable to use FEMA’s HAZUS-MH software to assist in the vulnerability assessment. The GIS software utilized at SEARP&DC is ArcGIS 10.2, which is not compatible with the current HAZUS software. According to FEMA, HAZUS-MH will be patched late in 2014 to make it compatible with ArcGIS 10.2. The next revision of the Plan will be able to have scenarios developed using HAZUS to assist in estimating damage and financial losses for prioritized hazards.

Table 4.12 provides criteria to assist in a qualitative assessment of the risk and potential impact of each identified hazard. Assigned risk levels were determined based on the hazard profiles developed earlier in this section. The classifications generated from this table assists in the prioritization of hazard risk through objectively looking at the possible scope of the studied hazards. In order to quantify the risk classifications, varying degrees of risk factors (probability, impact, location extent, warning time, and duration) were assigned a value of “1” to “4” and weighted in order to create a total value with a maximum score of 4.0.

Table 4.12: Risk Index for Regional Hazards

Category	Level	Criteria	Index Value	Weighted Factor
Probability	Very Low	Less than 1% annual probability	1	30%
	Low	Between 1% and 10% annual probability	2	
	Medium	Between 10% and 100% annual probability	3	
	High	100% annual probability	4	
Impact	Minor	Very few injuries, if any occur. Only minor property damage and minimal disruption of quality of life. Temporary shutdown of critical facilities	1	30%
	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one day.	2	
	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one week.	3	
	Catastrophic	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for one month or more.	4	
Location Extent	Negligible	Less than 1% of area affected.	1	20%
	Small	Between 1% and 10% of area affected.	2	
	Moderate	Between 10% and 50% of area affected.	3	
	Large	Between 50% and 100% of area affected.	4	
Warning Time	More than 24 hours	Self explanatory	1	10%
	12 to 24 hours	Self explanatory	2	
	6 to 12 hours	Self explanatory	3	
	Less than 6 hours	Self explanatory	4	
Duration	Less than 6 hours	Self explanatory	1	10%
	Less than 24 hours	Self explanatory	2	
	Less than one week	Self explanatory	3	
	More than one week	Self explanatory	4	

Table 4.13 assigns a qualitative risk impact assessment for each hazard, based from the hazard profiles created in this section and other input from plan stakeholders. The results were used in calculating the values for each hazard in order to prioritize the regional impacts of identified hazards in this plan.

Table 4.13: Summary of Regional Hazards Risk Impact

Hazard	Degree of Risk					
	Probability	Impact	Location Extent	Warning Time	Duration	Weighted Score
Dam Failure	Very Low	Critical	Small	12 to 24 hours	Less than 6 hours	1.9
Drought/Extreme Heat	Medium	Minor	Small	More than 24 hours	More than one week	2.1
Flooding	High	Critical	Moderate	6 to 12 hours	Less than one week	3.3
High Winds – Hurricanes	Medium	Critical	Large	More than 24 hours	Less than 24 hours	2.9
High Winds – Tornadoes	High	Critical	Small	Less than 6 hours	Less than 6 hours	3.0
High Winds – Severe T-storms	High	Minor	Moderate	Less than 6 hours	Less than 6 hours	2.6
Landslides	Low	Minor	Negligible	Less than 6 hours	Less than 6 hours	1.6
Land Subsidence / Sinkholes	Low	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Wildfire	High	Minor	Small	Less than 6 hours	Less than one week	2.6
Winter Storms	Low	Limited	Large	More than 24 hours	Less than one week	2.4

Based from the results of the hazard assessment summary, the highest priority hazards for the planning area are Flooding (3.3 Score), High Winds-Tornadoes (3.0 Score), and High Winds-Hurricanes (2.9 Score). It should be noted that this assessment is just a categorization of most likely factors for each hazard.

4.5 Probability of Future Occurrences and Damage Estimates

Table 4.14 estimates hazard event frequency of occurrence cumulatively for the planning area. These estimates were calculated from events recorded at different time periods, based on source data, which is described below. There is no guarantee the recorded level of hazard events will continue into the future at the same rate. However, the figures below will provide at least a possible estimate of potential damages.

The time scales for each recorded hazard is listed below (when known and/or applicable) in Table 4.14:

Dam Failure: 1990 through 2014 (two levee failures in Elba)

Drought / Extreme Heat: 1990 through 2014

Flooding: 1990 through 2014

Landslides: Unknown

Land Subsidence / Sinkholes: Unknown

Wildfires: 1997 through 2012

Winter Storms: 1990 through 2014

Table 4.14: Natural Hazard Probability and Damage Estimates

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	2*	24	N/A**	8.33%	N/A
Drought / Extreme Heat	4	14	N/A	28.57%	N/A
Flooding	110	24	\$241,000,000	4.5 events per year	\$10,041,667
High Winds	768	24	\$367,291,000	32 events per year	\$15,303,792
Landslides	8	N/A	N/A	N/A	N/A
Land Subsidence / Sinkholes	N/A	N/A	N/A	N/A	N/A
Wildfires	2,667	16	N/A	167 events per year	N/A
Winter Storms	17	24	\$801,000	70.83%	\$33,375

*Levee failures

**Information from Elba levee failures incorporated into flooding data

Sources: National Climatic Data Center (NCDC), Alabama EMA

Dam Failure: The risk of losses from dam failure (and levee breach) cannot be calculated based on historic records due to lack of data. The levee breaches in Elba in the 1990s are included in regional flood damage documentation. Even though dam failure is a rare occurrence and is mostly unprecedented in the planning area, an occurrence could cause critical damages downstream, especially areas near the Chattahoochee, Pea, and Conecuh rivers.

Drought/Extreme Heat: The risk of losses from drought and extreme heat cannot be calculated based on historic records due to lack of data. Qualitative documentation shows evidence that drought and extreme heat conditions cause agricultural losses and water quantity issues, but it is difficult to define the exact impact from this hazard.

Flooding: The planning area has recorded at least 110 flooding events in the last quarter century causing an estimated \$241 million in damages. The amount of losses for flooding makes it the second highest damaging hazard in the planning area.

High Winds (Hurricanes, Tornadoes, Severe Thunderstorms): The planning area has incurred 768 high wind events over the past quarter century causing an estimated \$367,291,000 in damages. The amount of losses for high wind events of varying types makes it the highest damaging hazard in the planning area.

Landslides: The risk of losses from landslides cannot be calculated based on historic records due to lack of data. Though a few incidents of landslides have been recorded in Butler County, there is no damage estimated attached to those events. Any landslide occurrence in the planning area would most likely be minor in impact due to the localized nature of these events.

Land Subsidence / Sinkholes: The risk of losses from land subsidence events, such as sinkholes, cannot be calculated based on historic records due to lack of data. Though much of the planning area has depressions noted on topographic maps or has karst terrain, information about previous incidents are limited at best with no damage estimates. Any land subsidence occurrence in the planning area would most likely be minor in impact due to the localized nature of these events.

Wildfires: Though wildfires are the most likely hazard to occur in the planning area, with an average of 167 wildfire events over a 16-year period, the impact of wildfires have been very minor and localized in mostly undeveloped areas. Though historically, wildfires have only affected timber resources in the planning area, future development in wildland urban interface areas should be mindful of this potential hazard.

Winter Storms: The planning area has incurred 17 winter storm events, including snow and ice, over the past quarter century causing an estimated \$801,000 in damages. These events normally have a short duration and have minor impacts, though the planning area is not especially prepared for a long duration event, if it would occur.

4.6 Total Population and Property Valuation Summary by Jurisdiction

This data in Table 4.15 is derived from local municipal government and tax valuation from the local revenue offices, as well as 2010 Census population. This data is for Tax Year 2014. This data provides an estimate of total exposure in the planning area.

Table 4.15: Total Population and Property Information by Jurisdiction

Jurisdiction	2010 Total Population	Parcels	Number of Buildings	Total Appraised Value of Improvements
Barbour County (Uninc.)	9,019	**	**	
Town of Baker Hill	279	**	**	
Town of Blue Springs	96	**	**	
City of Clayton	3,008	**	**	
City of Clio	1,399	**	**	
City of Eufaula	13,137	**	**	
Town of Louisville	519	**	**	
Butler County (Uninc.)	10,552	12,698	4,644	\$278,301,092
City of Georgiana	1,738	1,259	646	\$39,979,300
City of Greenville	8,135	4,469	3,083	\$426,245,200
Town of McKenzie	522	351	209	\$10,327,100
Coffee County (Uninc.)	18,183	35,242 **	**	
City of Elba	3,940	*	**	
City of Enterprise	26,139	*	**	
Town of Kinston	540	*	**	
Town of New Brockton	1,146	*	**	
Covington County (Uninc.)	16,436	17,452	7,074	\$655,006,910
City of Andalusia	9,015	5,809	4,343	\$410,911,810
Town of Babbie	603	*	*	*
Town of Carolina	297	*	*	*
City of Florala	1,980	1,697	975	\$59,284,960
Town of Gantt	222	*	*	*
Town of Heath	254	*	*	*
Town of Horn Hill	228	*	*	*
Town of Libertyville	117	*	*	*
Town of Lockhart	516	414	201	\$8,612,080
Town of Onycha	184	*	*	*
City of Opp	6,659	4,311	3,033	\$238,128,920
Town of Red Level	487	410	245	\$12,523,080
Town of River Falls	526	484	194	\$14,597,990
Town of Sanford	241	*	*	*
Geneva County (Uninc.)	13,904	12,416	4,480	\$448,634,260
Town of Black	207	223	69	\$4,649,500

Jurisdiction	2010 Total Population	Parcels	Number of Buildings	Total Appraised Value of Improvements
Town of Coffee Springs	228	185	117	\$6,812,900
City of Geneva	4,452	4,264	1,853	\$179,888,680
City of Hartford	2,624	1,521	1,159	\$92,370,700
Town of Malvern	1,448	868	425	\$39,161,400
City of Samson	1,940	1,350	821	\$56,521,900
City of Slocomb	1,980	1,422	898	\$62,397,700
City of Taylor	7	2	1	\$125,800
Henry County (Uninc.)	9,457	13,377	5,184	\$359,563,050
City of Abbeville	2,688	2,214	1,339	\$106,695,991
City of Dothan (part)	5	*	*	*
Town of Haleburg	103	*	*	*
City of Headland	4,510	2,886	2,013	\$226,024,911
Town of Newville	539	465	280	\$13,497,107
Houston County (Uninc.)	22,377	15,442	8,177	\$759,322,400
City of Ashford	2,148	1,442	980	\$93,060,000
Town of Avon	543	278	177	\$14,309,600
Town of Columbia	740	685	377	\$24,050,700
Town of Cottonwood	1,289	1,013	525	\$28,509,500
Town of Cowarts	1,871	1,114	715	\$66,375,900
City of Dothan	64,604	32,992	26,770	\$3,868,374,240
Town of Gordon	332	389	142	\$5,275,400
City of Kinsey	2,198	1,181	779	\$59,262,800
Town of Madrid	350	298	126	\$7,972,700
Town of Rehobeth	1,297	874	543	\$62,389,000
City of Taylor	2,368	1,022	781	\$69,371,200
Town of Webb	1,430	883	509	\$41,420,500

* Included in County's unincorporated amount

** During 2014, Barbour and Coffee counties changed GIS providers and were unable to query exact numbers for parcels and buildings by jurisdictions at this time

Source: Regional County Revenue Offices

It is important to note that actual values may be somewhat higher than those values assigned for tax purposes. Also, these values do not include tax-exempt structures such as government buildings and churches.

4.7 Critical Facilities/Infrastructure by Jurisdiction

Critical facilities are defined as facilities that are essential to the community, or may be crucial to the delivery of vital services, such as utilities and public safety. Critical facilities may also house or serve an at-risk population such as schools, hospitals, or nursing homes. Critical facilities would also likely result in catastrophic financial loss if severely damaged or destroyed, such as major industrial buildings, courthouses, and other government facilities. Critical facilities may vary from a transmission line that provides vital electricity to the community, to a hospital that provides medical care, or to the local public safety facilities that serve a community.

A concerted effort was made using information from the public, EMA, local government officials and industry stakeholders to identify the critical facilities. Such facilities were considered vital to transportation, energy, communication, health care, utility systems, food services, and the delivery of public safety. Structures that are occupied by at-risk populations such as schools are also included. They are listed with the most current estimated replacement cost, according to their insured values, in Tables 4.24 through 4.41. The information listed below was provided by the individual jurisdictions.

Other critical facilities locations are the facilities that store Extremely Hazardous Substances (EPCRA Section 302-Extremely Hazardous Substances, CERCLA Hazardous Substances, EPCRA, Section 313 Toxic Chemicals, CAA 122®) Regulated Chemicals for Accidental Release Prevention and other facilities that are covered. Local EMA offices maintain these lists.

Table 4.16 lists a summary of critical facilities summarized by type in the planning area. This list is not all-inclusive and includes facilities prioritized by specific jurisdictions. An inventory of critical facilities will be reviewed periodically and continually updated to reflect any changes in each of the jurisdictions.

Table 4.16: Critical Facility Summary

Facilities	Barbour	Butler	Coffee	Covington	Geneva	Henry	Houston	Planning Area
Fire / Rescue	9	18	5	23	9	6	31	101
Law Enforcement	3	4	4	8	5	4	9	37
Hospital / Health Dept	4	5	3	4	3	2	4	26
Schools	8	13	21	14	12	9	43	120
Continuity of Government	8	5	7	16	8	6	14	64

Source: Previous Local Hazard Mitigation Plans

4.8 Hazard Impacts

This section provides a narrative overview of each hazard’s impact on the planning area, based on previous finding within this section.

DAM FAILURE

According to the Risk Impact Assessment, the dam failure hazard scored a value of 1.9 (from a scale of 0 to 4).

Table 4.17: Risk Impact Assessment for Dam Failure

Probability	Very Low
Impact	Critical
Location Extent	Small
Warning Time	12 to 24 hours
Duration	Less than 24 hours

Dam regulation and research is an ongoing hazard mitigation issue in the State of Alabama. Currently, there are no state laws to regulate existing private dams or the construction of new private dams that do not require federal licenses or inspections. There have been four attempts to pass legislation requiring inspection of dams on bodies of water over 50 acre-feet or dams higher than 25 feet. Opposition of agricultural interest groups and insurance companies has hampered enactment.

Information pertaining to potential damages from dam failure is limited at the current time. The ADECA Office of Water Resources is currently conducting a dam study, as data listed within the National Inventory of Dams (NID) is outdated and not entirely accurate according to preliminary findings by ADECA. Once the dam assessment is complete, information regarding high hazard dams should allow for additional studies pertaining to potential vulnerability of this hazard.

Also, the only instance of dam failure in the planning area is two levee failures in Elba, which occurred in 1990 and 1998. Most of the damage estimates pertaining to this disaster are included in flooding assessments that are regional in scope.

Given the lack of historical loss data pertaining to dam or levee failure, it is assumed that an event, especially to the levees in Elba and Geneva could potentially result in significant losses, but estimating damage losses regionally over a long period of time yields a very low loss estimate overall.

DROUGHT / EXTREME HEAT

According to the Risk Impact Assessment, the drought / extreme heat hazard scored a value of 2.1 (from a scale of 0 to 4).

Table 4.18: Risk Impact Assessment for Drought / Extreme Heat

Probability	Medium
Impact	Minor
Location Extent	Small
Warning Time	More than 24 hours
Duration	More than one week

Because it cannot be predicted where drought and extreme heat may occur, all existing and future buildings, facilities, agricultural production, depletion of groundwater resources, and susceptibility to wildfire occurrences, and the general population in the planning area are considered to be vulnerable to this hazard and its impacts. Residents that are very young or advanced in age are more susceptible to health effects from extreme heat. Extreme heat may stress electrical utility providers, due to increased air condition requirements. Need for health services may also increase due to extreme heat. However, due to ongoing planning and relative common occurrence of these hazards, anticipated future damages or losses are expected to be minimal.

All existing and future buildings in the planning area are vulnerable to effects from drought and extreme heat. More importantly, all agricultural products and other natural resources are at risk. However, it is difficult to estimate values for damages, including crop failure, that are primarily due to drought and extreme heat issues. Due to the varying nature of this hazard, damages are caused to crop losses and issues to water supplies, but there is little methodology to calculating loss estimates that are due to these hazards.

FLOODING

According to the Risk Impact Assessment, the flooding hazard scored a value of 3.3 (from a scale of 0 to 4).

Table 4.19: Risk Impact Assessment for Flooding

Probability	High
Impact	Critical
Location Extent	Moderate
Warning Time	6 to 12 hours
Duration	Less than one week

As mentioned above, total potential loss data is incomplete due to the incompatibility of HAZUS-MH with the GIS system. Therefore, analysis from the HAZUS-MH flood model will be incorporated in the next plan update. However, in the last quarter century, well over \$200 million of damages have occurred from flooding in the planning area. Information pertaining to historical insured flood losses and repetitive flooded properties are included to provide more detailed information of areal losses based from flooding.

FEMA is also beginning to release Risk MAP data for Alabama counties. This data includes a Flood Risk Report, Flood Risk Map, and Flood Risk Database that allows for higher level assessment of flood data. Houston County is close to having Risk MAP data and data for the Choctawhatchee-Pea-Yellow River watershed should be completed in the next couple of years. This data, as it is released, will be incorporated in future updates.

The primary areas affected by riverine flooding in the planning area are along the Chattahoochee River, Choctawhatchee River, Pea River, Conecuh River, and major tributaries to those rivers. Other areas inside the floodplains are streams and creeks throughout the counties and the municipalities. The NFIP has identified flood zones in areas of each jurisdiction, with the exception of Baker Hill (Barbour County), McKenzie (Butler County), Onycha and Sanford (Covington County), and Webb (Houston County).

Flash flooding may potentially affect all residents of the planning area and cause runoff that becomes fast-rising waters that can cause property and street damage as well as casualties. Unlike riverine flooding, which can be forecasted over a few days, flash flooding is normally a quick onset hazard with little warning.

Riverine and flash flooding may occur any time of year, though flooding associated with heavy rains during hurricanes will occur in summer and early autumn.

Historical Insured Flood Losses

According to FEMA flood insurance policy records as of August 2014, there have been 887 flood losses reported through the NFIP since 1970 in the planning area, totaling \$21,637,366 in claims payments. A summary of these figures are provided in Table 4.20. It should be noted that these loss numbers only include structures that were insured through NFIP and that were reported. It is likely that there are many other flood losses not reported, in uninsured structures, or denied payment.

Table 4.20: Historical Summary of Insured Flood Losses

Jurisdiction	Flood Losses	Claims Payments
Barbour County	23	\$49,106
Unincorporated	19	\$9,505
Town of Baker Hill	*	*
Town of Blue Springs	0	\$0
City of Clayton	1	\$604
City of Clio	1	\$16,347
City of Eufaula	2	\$22,650
Town of Louisville	0	\$0
Butler County	1	\$0
Unincorporated	0	\$0
City of Georgiana	0	\$0
City of Greenville	1	\$0
Town of McKenzie	0	\$0
Coffee County	516	\$15,266,143
Unincorporated	20	\$494,140
City of Elba	441	\$14,383,435
City of Enterprise	54	\$357,568
Town of Kinston	1	\$31,000
Town of New Brockton	0	\$0
Covington County	37	\$416,536
Unincorporated	34	\$318,700
City of Andalusia	0	\$0
Town of Babbie	*	*
Town of Carolina	*	*
City of Florala	1	\$57,171
Town of Gantt	0	\$0
Town of Heath	*	*
Town of Horn Hill	*	*
Town of Libertyville	*	*
Town of Lockhart	*	*
Town of Onycha	*	*
City of Opp	2	\$40,665
Town of Red Level	0	\$0
Town of River Falls	0	\$0
Town of Sanford	*	*
Geneva County	153	\$2,704,911
Unincorporated	43	\$1,175,981
Town of Black	0	\$0
Town of Coffee Springs	0	\$0
City of Geneva	94	\$1,233,627
City of Hartford	11	\$232,738

Jurisdiction	Flood Losses	Claims Payments
Town of Malvern	1	\$7,532
City of Samson	3	\$50,761
City of Slocomb	2	\$4,272
Henry County	5	\$33,975
Unincorporated	4	\$24,433
City of Abbeville	0	\$0
Town of Haleburg	*	*
City of Headland	1	\$9,542
Town of Newville	0	\$0
Houston County	152	\$3,166,695
Unincorporated	26	\$361,411
City of Ashford	10	\$268,842
Town of Avon	0	\$0
Town of Columbia	25	\$759,098
Town of Cottonwood	0	\$0
Town of Cowarts	0	\$0
City of Dothan	87	\$1,690,725
Town of Gordon	2	\$18,290
City of Kinsey	0	\$0
Town of Madrid	0	\$0
Town of Rehobeth	0	\$0
City of Taylor	1	\$2,854
Town of Webb	1	\$65,475

**Community that is not participating in the National Flood Insurance Program.*

Source: Federal Emergency Management Agency, National Flood Insurance Program

Repetitive Loss Properties

A repetitive loss property is an insurable structure that has had two or more claims of more than \$1,000 within any ten-year period since 1978. A repetitive loss property may or may not be currently insured by the National Flood Insurance Program (NFIP).

According to the State NFIP Coordinator (as of June 2014), there are 68 unmitigated repetitive loss properties in the planning area, which accounted for 152 losses and \$3,702,593.88 in claims payments under the NFIP. The average claim amount for these properties has been \$24,359. These properties are predominantly single-family residential (63), with four (4) nonresidential, and one (1) condominium complex. There have been 12 repetitive loss properties that have been mitigated with \$697,883.88 of previous losses. Additional information is displayed below (Table 4.21).

Table 4.21: Repetitive Loss Properties (Not Mitigated)

Jurisdiction	Number of Properties	Types of Properties	Number of Losses	Building Payments	Content Payments	Total Payments	Average Payment
Coffee County							
Unincorporated	2	2 Single Family	4	\$33,451.58	\$8,175.20	\$41,626.78	\$10,406.70
Elba	35	31 Single Family, 1 Condo, 3 Nonresidential	73	\$1,466,463.42	\$488,763.98	\$1,955,227.40	\$26,783.94
Enterprise	5	5 Single Family	20	\$142,144.11	\$38,069.19	\$180,213.30	\$9,010.67
Covington County							
Unincorporated	6	6 Single Family	12	\$163,679.95	\$50,483.13	\$214,163.08	\$17,846.92
Geneva County							
Unincorporated	5	5 Single Family	11	\$298,555.25	\$73,182.44	\$371,737.69	\$33,794.34
Geneva	6	6 Single Family	13	\$214,533.40	\$29,278.71	\$243,812.11	\$18,754.78
Hartford	2	2 Single Family	5	\$93,690.73	\$3,333.85	\$97,024.58	\$19,404.92
Houston County							
Unincorporated	3	3 Single Family	6	\$93,145.01	\$23,785.55	\$116,930.56	\$19,488.43
Ashford	2	2 Single Family	4	\$104,248.57	\$3,620.07	\$107,868.64	\$26,967.16
Columbia	2	1 Single Family, 1 Nonresidential	4	\$65,472.42	\$308,517.32	\$373,989.74	\$93,497.44

Source: State NFIP Coordinator

HIGH WINDS (HURRICANES, TORNADOES, SEVERE THUNDERSTORMS)

HURRICANES

According to the Risk Impact Assessment, the hurricane hazard scored a value of 2.9 (from a scale of 0 to 4).

Table 4.22: Risk Impact Assessment for Hurricanes

Probability	Medium
Impact	Critical
Location Extent	Large
Warning Time	More than 24 hours
Duration	Less than 24 hours

Because hurricanes and other tropical events commonly affect a large spatial area, all existing and future buildings, facilities, and the general population in the planning area are considered to be vulnerable to this hazard and its impacts. The planning area is an inland location and will not receive some of the intensity and extent of these storms, but the magnitude of hurricanes affecting the central Gulf Coast can remain high as these storms travel inland into the region. The projected effects of hurricanes on the planning area may include additional hazards, including flooding from torrential rains, debris creation, and a lesser threat of weak tornadoes spawned by the hurricane system.

Hurricanes will provide those widespread effects during the summer and early autumn portions of the year. Normally there are a few days of warnings before a hurricane impacts the planning area allowing for preparations.

As mentioned above, total potential loss data is incomplete due to the incompatibility of HAZUS-MH with the GIS system. Therefore, analysis from the HAZUS-MH hurricane model will be incorporated in the next plan update.

TORNADOES

According to the Risk Impact Assessment, the tornado hazard scored a value of 3.0 (from a scale of 0 to 4).

Table 4.23: Risk Impact Assessment for Tornadoes

Probability	High
Impact	Critical
Location Extent	Small
Warning Time	Less than 6 hours
Duration	Less than 6 hours

Because tornadoes may touch down anywhere within the planning area, all existing and future buildings, facilities, and the general population in the planning area are considered to be vulnerable to this hazard and its impacts. Tornadoes can occur during hurricane events or other severe thunderstorm events, which can create multiple impacts.

All of the planning area is susceptible to tornadoes. The most likely time for tornadoes is during the spring months from March through May, with a secondary peak of tornado activity in November, but tornadoes occur in every month of the year. Tornadoes present the most frequent hazard and most likely source of property damage and injury in the planning area from a natural hazard. Tornadoes are possibly more destructive than hurricanes, but impacts are far more localized. Even though favorable conditions for tornadoes can be forecasted in advance, the location of a tornado is unknown until a few moments before the storm occurs.

SEVERE THUNDERSTORMS

According to the Risk Impact Assessment, the severe thunderstorm hazard scored a value of 2.6 (from a scale of 0 to 4).

Table 4.24: Risk Impact Assessment for Severe Thunderstorms

Probability	High
Impact	Minor
Location Extent	Moderate
Warning Time	Less than 6 hours
Duration	Less than 6 hours

Because severe thunderstorms with high winds may occur at any location within the planning area, all existing and future buildings, facilities, and the general population in the planning area are considered to be vulnerable to this hazard and its impacts. Severe thunderstorms with high winds can also produce similar effects to tornadoes and hurricanes. These effects will be more localized than hurricane events but more widespread than tornadoes.

LANDSLIDES

According to the Risk Impact Assessment, the landslide hazard scored a value of 1.6 (from a scale of 0 to 4).

Table 4.25: Risk Impact Assessment for Landslides

Probability	Low
Impact	Minor
Location Extent	Negligible
Warning Time	Less than 6 hours
Duration	Less than 6 hours

Information from the Geological Survey of Alabama shows that historical landslide events have been very sparse across the planning area. Due to the lack of substantive documentation of previous events, it is assumed that landslides events may occur at any location within the planning area, all existing and future buildings, facilities, and the general population in the planning area is considered to be vulnerable to this hazard and its impacts. With little recorded activity and documentation, it is believed that any potential losses in the planning area would be minor in scope.

LAND SUBSIDENCE / SINKHOLES

According to the Risk Impact Assessment, the land subsidence / sinkhole hazard scored a value of 1.8 (from a scale of 0 to 4).

Table 4.26: Risk Impact Assessment for Land Subsidence / Sinkholes

Probability	Low
Impact	Minor
Location Extent	Small
Warning Time	Less than 6 hours
Duration	Less than 6 hours

Information from the Geological Survey of Alabama shows that geology that is conducive to sinkholes and other forms of land subsidence are widespread across the planning area. Due to the lack of substantive documentation of previous events, it is assumed that land subsidence events may occur at any location within the planning area, all existing and future buildings, facilities, and the general population in the planning area is considered to be vulnerable to this hazard and its impacts. With little recorded activity and documentation, it is believed that any potential losses in the planning area would be minor in scope.

WILDFIRE

According to the Risk Impact Assessment, the wildfire hazard scored a value of 2.6 (from a scale of 0 to 4).

Table 4.27: Risk Impact Assessment for Wildfires

Probability	High
Impact	Minor
Location Extent	Small
Warning Time	Less than 6 hours
Duration	Less than one week

The effects caused by wildfires primarily will damage timber land in the planning area. If factors such as winds and drought are present, wildfires may spread from forested areas to areas with residential structures. These fires may begin due to events, such as arson or lightning, and are often difficult to contain due to the lack of access to the fire and a lack of readily available water to control the fires and the rapid spread of these fires. In the event of wildfires, structures in less populated areas in the proximity of the forested areas could be at risk of fire damage. Though all of the planning area's residents are at least somewhat vulnerable to wildfires, areas in isolated unincorporated areas are at a higher vulnerability according to the Alabama Forestry Commission. Florala and Onycha, in Covington County, are the only municipalities regarded as having High risk for future wildfire occurrences.

Though several wildfires occur annually in the planning area, most are very small and only affect small forested areas. There have been no recorded incidents in the NCDL database, and there is no source that provides damage estimates for the wildfire occurrences in the planning area. It is assumed that a particular wildfire incident could create significant impact in the planning area if conditions were met, but overall wildfire damages over a long period of time are fairly minimal.

WINTER STORM

According to the Risk Impact Assessment, the winter storm hazard scored a value of 2.4 (from a scale of 0 to 4).

Table 4.28: Risk Impact Assessment for Winter Storms

Probability	Low
Impact	Limited
Location Extent	Large
Warning Time	More than 24 hours
Duration	Less than one week

Historical records show the planning area has occasional instances of winter weather, which is primarily through frozen precipitation (snow/ice) that only affects the area for a few days at the most.

Because winter weather events may occur at any location within the planning area, all existing and future buildings, facilities, and the general population in the planning area are considered to be vulnerable to this hazard and its impacts. Winter weather events will affect those in vulnerable housing more severely than other areas.

Section 5 – Mitigation Strategy

This Mitigation Strategy section of the Plan addresses requirements of Section 201.6(c)(3) through providing the blueprint for participating jurisdictions in the AEMA Region B to practice in order to become less vulnerable to the identified hazards in the Risk Assessment.

Section Contents

- 5.1 Mitigation Planning Process
- 5.2 Regional Mitigation Goals
- 5.3 Regional Mitigation Strategies
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5.1 Mitigation Planning Process

Local planning stakeholders were asked to review the progress of their previously adopted mitigation goals and to reevaluate those strategies based on updated information from the Risk Assessment and vulnerability to each profiled hazard. The goals and strategies were viewed in light of the impact and extent of hazard occurrences in local jurisdictions and the region as a whole.

5.2 Mitigation Goals

Mitigation goals are broad statements that focus on long-term visions to reduce or avoid vulnerabilities to identified hazards within the region. Through the planning process, six primary goals were developed from corresponding goals in previous local mitigation plans. The mitigation goals expected to be achieved by development, adoption, and continuation of this plan include:

1. Manage the development of land and buildings to minimize risk of life and property loss due to hazard events (PREVENTION).
2. Protect structures and their occupants and contents from the damaging effects of hazard events (PROPERTY PROTECTION).
3. Preserve, rehabilitate, and enhance the beneficial functions of the natural environment to promote a balance between natural systems and social and economic demands (NATURAL RESOURCE PROTECTION).
4. Apply engineered structural modifications to natural systems and public infrastructure to reduce the potentially damaging impacts of hazards, where those modifications are feasible and environmentally suitable (STRUCTURAL MITIGATION).
5. Improve the efficiency, timing, and effectiveness of response and recovery efforts for hazard events (EMERGENCY SERVICES).
6. Educate and foster public awareness of hazards and techniques available for mitigation (PUBLIC EDUCATION AND AWARENESS).

5.3 Mitigation Strategies

Mitigation strategies are broad, yet more defined actions that help to further define mitigation goals. A wide range of activities that are aligned with the six goal categorizations were considered in order to help achieve the established mitigation goals, in particular emphasizing mitigation concerning new and existing buildings and infrastructure. These strategies also provide additional background to addressing any specific hazard concerns. Land use planning capacity in much of the region is limited, due to the lack of land use planning and zoning authority in unincorporated areas, with the exception of floodplain management and subdivision regulations. Also, many small municipalities have limited planning and building enforcement function, due to fiscal constraints and lack of expertise, and choose not to implement land use, zoning, or code enforcement mechanisms. The six goal categorizations used for mitigation strategies include: Prevention, Property Protection, Natural Resource Protection, Structural Mitigation, Emergency Services, and Public Awareness and Education. These are discussed in detail below, as well as identifying appropriate hazard(s) that are mitigated through these approaches.

Goal #1: Prevention

Prevention activities are primarily intended to address future development and to keep hazard effects from increasing. Prevention activities are often administered through government programs or regulatory actions that influence the built environment. These activities are particularly effective in hazard mitigation for areas with little current capital investment or development. Examples of prevention activities include:

1. Land use planning and zoning administration (All Hazards, primarily Flooding)
2. Building code enforcement program (Flooding, High Winds)
3. Open space preservation (Flooding)
4. Floodplain management regulations (Flooding)
5. Stormwater management regulations (Flooding)
6. Participation in National Flood Insurance Program (NFIP) (Flooding)
7. Capital improvements planning (All Hazards)

Goal #2: Property Protection

Property protection activities primarily concentrate on the modification of existing buildings and adjacent areas to strengthen their ability to withstand hazard events, or to remove an at-risk structure from hazardous locations. Examples of property protection activities include:

1. Acquisition of floodprone properties (Flooding)
2. Relocation of floodprone structures (Flooding)
3. Elevation of floodprone structures (Flooding)
4. Retrofitting of critical facilities and other structures (All Hazards)

Goal #3: Natural Resource Protection

Natural resource protection activities reduce the impact of hazard events by preserving, rehabilitating, or enhancing the natural environment and its protective functions. These activities would include areas such as floodplains, wetlands, and steep slopes. Examples of natural resource protection activities include:

1. Floodplain protection (Flooding)
2. Watershed management (Flooding)
3. Riparian buffers (Flooding)
4. Forest and vegetation management (Flooding, Wildfire)
5. Conservation easements (Flooding, Land Subsidence)

Goal #4: Structural Mitigation

Structural mitigation protection activities are intended to lessen the impact of a hazard by utilizing construction of an appropriate structure. Examples of structural mitigation protection activities include:

1. Reservoirs (Flooding)
2. Levees and dams (Flooding)
3. Stormwater diversion (Flooding)
4. Retention and detention structures (Flooding)

5. Safe rooms and shelters (High Winds, Extreme Temperatures)

Goal #5: Emergency Services

Emergency services protection activities involve protecting people and property before, during, and after a hazard event. These activities assist in providing capable actions regarding hazard events. Examples of emergency services activities include:

1. Warning alert systems (All Hazards)
2. Continuity of operations (All Hazards)
3. Evacuation routes (All Hazards)
4. Emergency responder training (All Hazards)
5. Provision of alternative power (e.g. generators) (All Hazards)
6. Debris removal (All Hazards)

Goal #6: Public Education and Awareness

Public education and awareness activities inform and remind residents, business owners, elected officials, and other stakeholders about hazards, vulnerable locations, and mitigation actions that can be used to avoid losses. Examples of public education and awareness activities include:

1. Information dissemination, including maps and websites displaying hazard information (All Hazards)
2. Public exposition or workshops (All Hazards)
3. Educational programs (All Hazards)
4. Real estate disclosures (Dam Failure, Flooding, Technological Hazards)

5.4 Jurisdictional Mitigation Action Plans

This section identifies and analyzes a range of mitigation actions and projects under consideration to achieve the regional mitigation goals for reducing the effects of hazard events for the region at large, as well as each of the jurisdictions within the region. Local planning stakeholders thoroughly reviewed and considered the Risk Assessment and their local capabilities to determine the most appropriate plan of action for their jurisdictions. Each action or project listed has accessory information, such as designation of a lead agency, hazard(s) addressed, and potential funding source(s). The following table describes the key elements of the Mitigation Action Plans.

Jurisdiction Name	
Goal	Category of goal that is met: #1: Manage the development of land and buildings to minimize risk of life and property loss due to hazard events (PREVENTION) #2: Protect structures and their occupants and contents from the damaging effects of hazard events (PROPERTY PROTECTION) #3: Preserve, rehabilitate, and enhance the beneficial functions of the natural environment to promote a balance between natural systems and social and economic demands (NATURAL RESOURCE PROTECTION) #4: Apply engineered structural modifications to natural systems and public infrastructure to reduce the potentially damaging impacts of hazards, where those modifications are feasible and environmentally suitable (STRUCTURAL MITIGATION) #5: Improve the efficiency, timing, and effectiveness of response and recovery efforts for hazard events (EMERGENCY SERVICES) #6: Educate and foster public awareness of hazards and techniques available for mitigation (PUBLIC EDUCATION AND AWARENESS)
Action Description	Title and description of action to be undertaken
Hazards Addressed	Hazard which the action addresses
Lead Agency	Entity responsible for undertaking the action
Funding Source	Level of funding required for action, where applicable
Priority/Status	Categorization based on the following projected criteria: Completed: Notable mitigation projects implemented in the past few years Ongoing: Action in progress / perennial occurrence High: Projected implementation within five years Medium: Projected implementation between five and ten years Low: Projected implementation beyond ten years

Benefit/Cost Score	<p>The Benefit/Cost score included in the jurisdictional Mitigation Action Plans are considered at the planning level and does not include a full analysis of all costs and benefits associated with action implementation. For example, a mitigation action that scores “High” in benefits and “Low” in costs will be listed as “Moderate” in the plan due to providing a long-term solution, but with a high implementation cost. For some projects, such as routine or ongoing operations conducted with local operating funds and existing staff, this may be the only explicit comparison of costs and benefits. For projects of which grant funding or bond issues may be sought, more in-depth evaluations of costs and benefits may be required. As specific project scopes are detailed, the benefits and costs of an action can be identified with more precision and the benefit-cost ratio (BCR) that results from a full benefit-cost analysis may differ from the planning level Benefit/Cost score presented in the plan. It should be noted that higher scores do not necessarily correspond to high priorities, nor do low scores correspond to low priority projects. An important action with a high priority to a jurisdiction may have a lower Benefit/Cost score because of its complexity, assumed high expense, and other potential costs. Jurisdictions should not be discouraged or deterred from further consideration of actions which have low scores until additional, more specific, evaluations of the costs and benefits has been undertaken.</p> <p><u>Low:</u> Benefits: Projects that only benefit a limited population, or provides short-term benefits / Costs: projects likely to cost over \$100,000 and requiring additional funding or staffing outside of normal operations, and is complicated to implement.</p> <p><u>Moderate:</u> Benefits: Projects that would be felt by moderate amount of population in jurisdiction, or solves a problem for several years / Costs: projects that may need additional funding or continued study or staffing outside of normal operations, with estimated costs between \$10,000 and \$100,000.</p> <p><u>High:</u> Benefits: Projects that benefit many in the jurisdiction that are long-term solutions / Costs: projects that can be implemented by existing personnel with little additional burden on budget and uncomplicated to implement.</p>
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**5.4.1 Southeast Alabama Regional Planning and Development Commission
(SEARP&DC) Mitigation Actions**

SEARP&DC Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	SEARP&DC (with assistance from SCADC) will maintain the mitigation plan by seeking additional grant funding, as needed	All	SEARP&DC	HMGP/Local	High	High
1	SEARP&DC will work to incorporate Pike County, Dale County, and Crenshaw County and their jurisdictions not part of this plan as their plans expire	All	SEARP&DC	HMGP/Local	High	High
1	SEARP&DC will facilitate multi-jurisdiction collaboration by attending AEMA Region B meetings on at least an annual basis	All	SEARP&DC	Local	High	High
1	SEARP&DC will incorporate HAZUS-MH and Risk MAP information in Risk Assessment for future plan updates	Flooding / High Winds	SEARP&DC	HMGP/Local	High	High

5.4.2 Barbour County Jurisdictions Mitigation Actions

- 1. Barbour County**
- 2. Town of Baker Hill**
- 3. Town of Blue Springs**
- 4. City of Clayton**
- 5. City of Clio**
- 6. City of Eufaula**
- 7. Town of Louisville**

Barbour County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Installation of two individual safe rooms	High Winds	Barbour County EMA	HMGP / Private	Completed	N/A
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Establish a building department with inspectors	All	Barbour County Engineer	Local	High	Moderate
1	Adopt tree ordinance limiting height along public rights-of-ways	All (primarily High Winds)	County Administration	Local	Medium	High
1	Continue to maintain and update flood mapping and watershed plans, subdivision regulations, and other planning documents	Flooding	Barbour County Engineer / NFIP Coordinator	HMGP/Local	High	High
1	Implement GIS system to assist in hazard mitigation planning	All	County Administration	Local	High	Moderate
6	Promote building safety and disaster awareness of schools and civic organizations through presentations and publications	All	Barbour County EMA	Local	High	High
4	Improve maintenance of existing drainage structures	Flooding	Barbour Co Road and Bridge	HMGP/Local	High	Moderate
5	Procure and maintain generators for critical facilities	All	Barbour County EMA	HMGP/State/Local	High	Moderate

Barbour County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	Barbour County EMA / Barbour Co Road and Bridge	Federal/State/Local	High	Moderate/Low (dependent on specific project)
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Barbour County EMA	Federal/State/Local	High	High
5	Maintain outdoor warning siren system	All	Barbour County EMA	HMGP/Local	High	Moderate
2	Acquire , elevate, and/or relocate flood prone structures and repetitive loss properties	Flooding	Barbour County EMA	HMGP/Local	High	Moderate
4	Provide adequate community and individual safe rooms	High Winds	Barbour County EMA	HMGP/State/Local/ Private	High	Moderate

Town of Baker Hill Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Procure and maintain generators for critical facilities	All	Town Administration	HMGP/Local	High	Moderate
4	Add street lights through town	All	Town Administration	Local	Medium	Moderate
4	Add fire hydrants through town	All	Baker Hill Water Auth	Federal/State/Local	Medium	Moderate
5	Maintain and upgrade equipment for Police Dept and Baker Hill Vol Fire Dept	All	Police Dept / Baker Hill VFD	Federal/State/Local	High	Moderate
1,3	Participation in NFIP	Flooding	Town Administration	Local	High	High
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Barbour County EMA	Federal/State/Local	High	High
5	Maintain outdoor warning siren system	All	Town Administration / Barbour County EMA	HMGP/Local	High	Moderate
4	Provide adequate community and individual safe rooms	High Winds	Barbour County EMA / Town Administration	HMGP/State/Local/Private	High	Moderate
2	Acquire , elevate, and/or relocate flood prone structures and repetitive loss properties	Flooding	Town Administration	HMGP/Local	High	Moderate
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	Town Administration / Barbour Co Road and Bridge	Federal/State/Local	High	Moderate/Low (dependent on specific project)

Town of Blue Springs Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in NFIP	Flooding	Town Administration	Local	High	High
5	Cooperate with Blue Springs State Park on emergency matters	All	Town Administration	Local	High	High
5	Maintain outdoor warning siren system	All	Town Administration / Barbour County EMA	HMGP/Local	High	Moderate
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Barbour County EMA	Federal/State/Local	High	High
5	Purchase emergency generator for water system critical facilities	All	Baker Hill Water Authority	HMGP/Local	High	Moderate
5	Maintain and upgrade equipment for fire department	All	Blue Springs VFD	Federal/State/Local	High	Moderate
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	Town Administration / Barbour Co Road and Bridge	Federal/State/Local	High	Moderate/Low (dependent on specific project)
2	Acquire , elevate, and/or relocate flood prone structures and repetitive loss properties	Flooding	Town Administration	HMGP/Local	High	Moderate
4	Provide adequate community and individual safe rooms	High Winds	Barbour County EMA / Town Administration	HMGP/State/Local/ Private	High	Moderate

City of Clayton Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in NFIP	Flooding	City Administration	Local	High	High
6	Provide public involvement activities and publish public information brochures on natural hazards and emergency situations	All	City Administration / Barbour County EMA	State/Local	High	High
5	Procure and maintain generators for critical facilities	All	City Administration	HMGP/State/Local	High	Moderate
5	Maintain and upgrade equipment for fire department	All	Clayton FD	Federal/State/Local	High	Moderate
5	Maintain outdoor warning siren system	All	City Administration / Barbour County EMA	HMGP/Local	High	Moderate
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Barbour County EMA	Federal/State/Local	High	High
4	Provide adequate community and individual safe rooms	High Winds	Barbour County EMA / City Administration	Federal/State/Local/ Private	High	Moderate
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	City Administration / Barbour Co Road and Bridge	Federal/State/Local	High	Moderate/Low (dependent on specific project)

City of Clayton Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Adopt and update a comprehensive plan, zoning regulations, subdivision regulations, floodplain management regulations, storm water management regulations, building-related codes, fire prevention codes, wetlands protection regulations, water quality regulations, stream-dumping regulations, and the preservation of open space as preventative measures that protect existing and future buildings, infrastructure and critical facilities	All	City Administration	State/Local	Medium	High

City of Clio Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in NFIP	Flooding	City Administration	Local	High	High
1	Incorporate “neighbor accountability” facet into neighborhood watch program	All	City Administration	Local	High	High
1	Assess tree hazards adjacent to electrical transmission lines to report to Pea River Electric Cooperative	All (primarily High Winds)	City Administration / Pea River Electric Coop	Local	High	High
5	Compile list of local heavy equipment owner/operators for responsive debris removal on surface streets post-disaster	All (primarily High Winds)	City Administration	Local	High	High
5	Procurement of holding tanks for storage of critical fuels	All	City Administration	State/Local	High	Moderate
5	Procure and maintain generators for critical facilities	All	City Administration	HMGP/State/Local	High	Moderate
5	Maintain outdoor warning siren system	All	City Administration / Barbour County EMA	HMGP/Local	High	Moderate
4	Provide adequate community and individual safe rooms	High Winds	Barbour County EMA / City Administration	Federal/State/Local/ Private	High	Moderate
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	City Administration / Barbour Co Road and Bridge	Federal/State/Local	High	Moderate/Low (dependent on specific project)

City of Clio Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Barbour County EMA	Federal/State/Local	High	High
6	Provide public involvement activities and publish public information brochures on natural hazards and emergency situations, including warning sirens, shelter information, basic needs during a disaster, and property protection activities	All	City Administration / Barbour County EMA	State/Local	High	High
5	Establish emergency triage locations	All	City Administration	Local	High	High
5	Establish emergency shelters at local churches	All	City Administration / Local Churches	Federal/Local	High	Moderate
5	Facilitate shelter operation plans with local agencies and Red Cross	All	City Administration	Local	High	High
5	Set up a secondary communications center with needed capabilities	All	City Administration	Federal/State/Local	High	Moderate
5	Procure additional rescue equipment	All	Clio VFD	Federal/State/Local	High	Moderate
5	Implement building collapse/confined space training	All	Clio VFD	Federal/State/Local	High	Moderate
5	Procure additional handheld communications equipment	All	City Administration	Federal/State/Local	High	Moderate
5	Establish volunteer search team with needed equipment	All	City Administration	Federal/State/Local	High	Moderate
5	Establish volunteer emergency dispatcher program with training	All	City Administration	Local	High	Moderate

City of Eufaula Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Rehabilitation of drainage system along sections of Sanford Ave and Malone St	Flooding	Public Works	Delta Regional Authority / Local	Completed	N/A
1,3	Continue participation in NFIP	Flooding	City Administration	Local	High	High
1	Adopt construction stormwater ordinance	Flooding	Building Dept	Local	High	High
5	Establish traffic control and route planning for emergencies	All	Police Dept	Local	High	High
5	Establish emergency debris disposal site	All	Public Works	Local	High	Moderate
1	Utilize city plans and land use ordinances for discussion of hazard mitigation techniques	All	City Administration	Local	High	High
1	Develop comprehensive watershed management program	All	City Administration / Chattahoochee-Chipola Clean Water Partnership	State/Local	High	High
1	Develop plan of action for mosquito-borne diseases	All	City Administration / Public Health Dept	State/Local	High	Moderate
5	Purchase new vehicles and equipment for police department	All	Police Dept	Federal/State/Local	High	Moderate
2	Continue housing rehabilitation programs in vulnerable areas	All	City Administration	CDBG/Private	Medium	Moderate
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	City Administration / Public Works	Federal/State/Local	High	Moderate/Low (dependent on specific project)

City of Eufaula Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
6	Coordinate hazard mitigation activities with local and county stakeholders	All	City Administration / Barbour County EMA	Local	High	High
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Barbour County EMA	Federal/State/Local	High	High
6	Promote a building safety week to educate the public about structural vulnerabilities	All	Building Dept	Local	High	High
6	Educate the public about preventing mosquito habitats	All	City Administration / Public Health Dept	State/Local	High	High
6	Promote National Severe Weather Preparedness Week	All	City Administration / Barbour County EMA	Local	High	High
6	Promote safety training in schools and public agencies	All	City Administration / Eufaula City Schools	Local	High	High
6	Educate public about local government operations	All	City Administration	Local	High	High
5	Procure and maintain generators for critical facilities	All	City Administration	HMGP/State/Local	High	Moderate
5	Maintain outdoor warning siren system	All	City Administration / Barbour County EMA	HMGP/Local	High	Moderate
1	Continue to update GIS system with hazard information	All	Building Dept	State/Local	High	High
4	Repair damaged and deteriorating drainage facilities	Flooding	Public Works	Federal/State/Local	High	Moderate
5	Upgrade Police Station facilities	All	Police Dept	Federal/State/Local	High	Moderate
5	Upgrade communication abilities among all departments	All	City Administration	Federal/State/Local	High	Moderate
5	Establish Incident Command vehicle	All	Police Dept	Federal/State/Local	High	Moderate
5	Establish program to regularly upgrade computer equipment	All	City Administration	Local	Medium	Moderate
4	Repair bluff area at Governor's Park	Flooding	Public Works	Federal/State/Local	High	Low
4	Provide adequate community and individual safe rooms	High Winds	Barbour County EMA / City Administration	Federal/State/Local/Private	High	Moderate

City of Eufaula Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	City Administration / Barbour Co Road and Bridge	Federal/State/Local	High	Moderate/Low (dependent on specific project)

Town of Louisville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in NFIP	Flooding	Town Administration	Local	High	High
1,4	Add backflow valves in sewer lines	All	Town Administration	Federal/State/Local	High	Moderate
5	Procure and maintain generators for critical facilities	All	Town Administration	HMGP/State/Local	High	Moderate
6	Provide public involvement activities and publish public information brochures on natural hazards and emergency situations, including warning sirens, shelter information, basic needs during a disaster, and property protection activities	All	Town Administration / Barbour County EMA	State/Local	High	High
1	Implement GIS system to assist with hazard mitigation	All	Town Administration	State/Local	High	High
3,4	Continue to provide structural projects such as wind retrofits, drainage improvements, reservoirs, and retention or detention basins which store excess water, levees, and floodwalls which place barriers between the source of flooding and damage-prone properties; channeling modifications: widening, straightening, or removing bridge and culvert restrictions so the channel can convey more water or carry it faster, diversions that redirect high flows to another location, and channel maintenance; keeping streams, ditches, and storage basins clear (riprap, etc.)	Flooding	Town Administration / Barbour Co Road and Bridge	Federal/State/Local	High	Moderate/Low (dependent on specific project)
5	Install dry hydrants and upgrade fire hydrants	All	Town Administration / Louisville VFD	Federal/State/Local	High	Moderate
5	Maintain outdoor warning siren system	All	Town Administration / Barbour County EMA	HMGP/Local	High	Moderate
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Barbour County EMA	Federal/State/Local	High	High

4	Provide adequate community and individual safe rooms	High Winds	Barbour County EMA / Town Administration	Federal/State/Local/ Private	High	Moderate
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5.4.3 Butler County Jurisdictions Mitigation Actions

- 1. Butler County**
- 2. City of Georgiana**
- 3. City of Greenville**
- 4. Town of McKenzie**

Butler County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Designation of volunteer central emergency coordinator	All	Each municipality	Local	Completed	N/A
5	Installation of three (3) outdoor warning sirens in the past five (5) years	All	Butler County EMA	Federal/Local	Completed	N/A
4	Installation of 13 individual safe rooms in last several years	High Winds	Butler County EMA	Federal/Private	Completed	N/A
5	Completion of new water well for additional supply	All	Butler County Water Auth	Federal/Local	Completed	N/A
5	Continue planning and installation of approximately 45 sirens at targeted sites to adequately cover population pockets in Butler County	All	Butler County EMA	Federal/State/Local	High	Moderate
5	Maintain designation of a volunteer central emergency coordinator in each municipality / community to better facilitate communications with the Butler County EMA	All	Each municipality	Local Funds	High	High
5	Construct warning signage for limited visibility due to forest fires on major roads in targeted areas; especially during controlled burns	Wildfire	Butler County Road Dept / Alabama DOT / Alabama DPS	Federal/State/Local	High	High
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Butler County EMA	Federal/State/Local	High	High
5	Equip fire departments with emergency radios	All	Various fire departments	State/Local	High	High
4,5	Maintain and expand existing shelter facilities to provide adequate pre-disaster care and space, as needed; add additional generators; need to include shelter training and communication/shelter training	High Winds	Shelter Operators / American Red Cross	Federal/State/Local	Medium	High

Butler County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
2,5	Designate and upgrade/retrofit, as necessary, existing public facilities to provide shelter in areas of Butler County where there currently are no shelters, primarily targeting schools and community centers, at a rate of one site every two years; include the consideration of community colleges for additional shelters; consider coordinating with a medical needs shelter and comfort care facility with Health Dept	High Winds	Butler County EMA / Shelter Operators / Dept of Public Health	Federal/State/Local	Medium	Moderate
4	Construct new public shelter facilities in those areas of the county with no shelter facilities, including outdoor recreation areas; consider ADECA/ADSS model	High Winds	Butler County EMA	Federal/State/Local	High	Moderate
4	Continue to secure funds for individual safe rooms	High Winds	Butler County EMA	Federal/Private	High	High
4	Work with developers, homebuilders, and contractors to promote construction of a safe room in all new residential development	High Winds	Butler County EMA / Local Building/Planning Officials	Local	High	High
6	Continue to publicize information on locations of existing public shelters and appropriate use	High Winds	Butler County EMA / DHR / Red Cross	Local	High	High
1	Incorporate and enforce flood management provisions in all land use and zoning regulations	Flooding	Building/Planning Officials	Local	High	High
1	Ensure future land use and growth plans do not extend development into flood plains	Flooding	Building/Planning Officials	Local	High	High

Butler County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Develop long-range growth and development plan to address permitting and construction process in unincorporated areas, including building permitting and subdivision regulations	All	Butler County Engineer / Planning Officials	Federal/State/Local	Medium	High
1	Adopt and enforce modern building codes	All	Butler County Engineer / Planning Officials	Local	High	High
1	Ensure the Butler County EMA is involved in reviewing local planning documents	All	Building/Planning Officials	Local	Medium	High
2	Acquisition of properties in floodplains to be used for open space and other recreational activities	Flooding	Recreation and Planning Officials	Federal/State/Local	High	Moderate
1,3	Continue to encourage jurisdictions to fully participate in the NFIP program	Flooding	Local Officials	Local	High	High
1	Promote utilization of municipal zoning ordinances in urban fringe areas	Wildfire	Building/Planning Officials	Local	High	High
3,6	Establish education program on buffer construction and fire breaks in wildland interface areas	Wildfire	Butler County EMA / Fire Protection Authorities	Federal/State/Local	Medium	High
3,6	Support Alabama Forestry Commission efforts to educate private landowners on best practices	Wildfire	Butler County EMA / Fire Protection Authorities / Building/Planning Officials	Local	Medium	High
3,6	Multi-jurisdictional implementation of public awareness and education efforts about water conservation and quality	Drought / Extreme Heat	Butler County EMA / Local Water Systems / Health Dept	Local	Medium	High
5,6	Work with medical providers to develop emergency supplies and education program through the Healthcare Coalition	All	Butler County EMA / Dept of Public Health / County Health Dept / Medical Providers	Local	High	High
6	Work with Butler County Farm Agency and County Extension Office to establish drought information center	Drought / Extreme Heat	Butler County Officials	Federal/State/Local	High	High

Butler County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,5	Develop drought and heat indicator plan and warning system	Drought / Extreme Heat	Farm Service Agency / County Ext Office	State/Local	High	High
6	Develop print public service announcements	Drought / Extreme Heat	Farm Service Agency / County Ext Office	State/Local	Medium	High
4	Identify flood prone roads to limit erosion and flood damage	Flooding	Butler Co Road Dept	State/Local	High	High
4	Continue bridge inspection and improvement efforts to prevent damage during flood events	Flooding	Butler Co Road Dept	Federal/State/Local	High	Low
5	Maintain all roadways to allow access for emergency response, recovery and repair, and continuity of delivery services at eight roads per year	All	Butler Co Road Dept	Federal/State/Local	High	Low
2	Acquisition or relocation of at-risk structures from flood prone and other natural areas	Flooding / All	Butler County EMA / Local Officials	Federal/State/Local	High	Low
5	Continue investigating need for emergency water supply during disaster events and assess generator needs for water supply	All	Butler County EMA / Local Water Systems	State/Local	High	High
5	Limit non-critical water consumption during severe drought conditions	Drought / Extreme Heat	Local Water Systems	Local	Medium	High
5	Continue inventory of emergency response services and assess needs	All	Butler County EMA / Local Agencies	Local	High	High
5	Continue coordination of hazard mitigation activities with pandemic and health department provisions for emergency preparedness	All	Butler County EMA / Dept of Public Health	Local	High	High
6	Continue communication with the general public annually to provide status update of hazard mitigation plan and ongoing implementation	All	Butler County EMA	Local	High	High

Butler County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Work with municipalities to provide assistance with implementation and update of hazard mitigation plan	All	Butler County EMA / Municipal Officials	Local	High	High
1,4	Investigate need and feasibility for establishing a local reserve fund for repairing and/or incorporating hazard mitigation measures for public and private facilities and infrastructure that are at risk from natural hazards	All	County and Municipal Officials	Local	High	High
1	Continue to research and provide hazard mitigation, emergency preparedness, and disaster recovery grant management	All	Butler County EMA	Local	Medium	High
5	Investigate need for and acquire emergency generators to provide back-up power to critical facilities	All	Butler County EMA / Local Officials	Federal/State/Local	High	Moderate
5	Provide for incident command training for local emergency personnel	All	Butler County EMA	Federal/State/Local	High	High
6	Continue LEPC meetings to provide regular updates to county, municipal, utility, and emergency personnel	All	Butler County EMA	Local	High	High
2,5	Continue to identify critical facilities and evaluate potential mitigation techniques	All	Butler County EMA / LEPC / Local Officials	Local	High	High
1	Incorporate development of Geographic Information Systems (GIS) for database of critical facilities, infrastructure, and other applicable data to assist in hazard risk assessments	All	Butler County EMA / SCADC / Local Officials	State/Local	Medium	Moderate
6	Continue coordination with various local agencies (e.g. DHR, Board of Education, local churches) to assist with distribution of information	All	Butler County EMA / Local Agencies	Local	High	High

Butler County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
6	Continue utilization of information booth for display of informational materials at public events	All	Butler County EMA	Local	High	High
6	Continue distribution of magnets listing emergency contact information of local agencies	All	Butler County EMA	Local	High	High
2,3	Develop land management course of training with County Extension System for decrease of property damage	All	Butler County EMA / County Extension Service	State/Local	High	High
6	Develop broadcast public service announcements for local television	All	Butler County EMA / Various Agencies	Local	High	Moderate
6	Develop print public service announcements for publication	All	Butler County EMA / Various Agencies	Local	High	High
6	Continue utilization of website with timely information for citizens	All	Butler County EMA	Local	High	High
6	Continue incorporation of hazard mitigation awareness in local schools	All	Butler County Board of Education	State/Local	High	High
6	Continue distribution of hazard-related coloring and activity books	All	Butler County EMA / Board of Education	Federal/State/Local	High	High

City of Georgiana Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Designation of volunteer central emergency coordinator	All	City Administration	Local	Completed	N/A
5	Installation of additional outdoor warning siren	All	Butler County EMA	Federal/State/Local	High	Moderate
5	Maintain designation of a volunteer central emergency coordinator to better facilitate communications with the Butler County EMA	All	City Administration	Local Funds	High	High
5	Facilitate warning signage for limited visibility due to forest fires on major roads in targeted areas; especially during controlled burns	Wildfire	Butler County Road Dept / Alabama DOT / Alabama DPS	Federal/State/Local	High	High
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Butler County EMA	Federal/State/Local	High	High
4,5	Maintain and expand existing shelter facilities to provide adequate pre-disaster care and space, as needed; add additional generators; need to include shelter training and communication/shelter training	High Winds	Shelter Operator / Red Cross	Federal/State/Local	High	High
2,5	Designate and upgrade/retrofit, as necessary, existing public facilities to provide shelter in Georgiana	High Winds	Butler County EMA / City Administration	Federal/State/Local	High	Moderate
4	Construction of a new public shelter facility, including outdoor recreation areas	High Winds	Butler County EMA / City Administration	Federal/State/Local	Low	Moderate
4	Secure funds for individual safe rooms	High Winds	Butler County EMA	Federal/Private	High	High
4	Work with developers, homebuilders, and contractors to promote construction of a safe room in all new residential development	High Winds	Butler County EMA / City Clerk	Local	Medium	High
6	Publicize information on locations of existing public shelter and appropriate use	High Winds	Butler County EMA / Red Cross	Local	High	High

City of Georgiana Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Incorporate and enforce flood management provisions in all land use and zoning regulations	Flooding	City Clerk / Zoning Board	Local	High	High
1	Ensure future land use and growth plans do not extend development into flood plains	Flooding	City Clerk / Zoning Board	Local	High	High
1	Continue enforcement of modern building codes	All	City Clerk / Building Inspector	Local	High	High
1	Ensure the Butler County EMA is involved in reviewing local planning documents	All	City Clerk	Local	High	High
2	Acquisition of properties in floodplains to be used for open space and other recreational activities	Flooding	City Administration	Federal/State/Local	Low	Moderate
1	Utilize zoning ordinance for development in urban fringe areas	Wildfire	City Clerk / Zoning Board	Local	High	High
3,6	Establish education program on buffer construction and fire breaks in wildland interface areas	Wildfire	Butler County EMA / Georgiana Fire Dept	Federal/State/Local	High	High
3,6	Support Alabama Forestry Commission efforts to educate private landowners on best practices	Wildfire	Butler County EMA / Georgiana Fire Dept	Local	High	High
3,6	Continued implementation of public awareness and education efforts about water conservation and quality	Drought / Extreme Heat	Butler County EMA / Water Dept	Local	High	High
5,6	Work with medical providers to develop emergency supplies and education program through the Healthcare Coalition	All	Butler County EMA / Dept of Public Health / County Health Dept / Medical Providers	Local	High	High
1,5	Develop drought and heat indicator plan and warning system	Drought / Extreme Heat	Farm Service Agency / County Ext Office	State/Local	High	High
6	Develop print public service announcements	Drought / Extreme Heat	Farm Service Agency / County Ext Office	State/Local	Medium	High
4	Continue to evaluate flood prone roads to limit erosion and flood damage	Flooding	Butler Co Road Dept / City Administration	State/Local	High	High

City of Georgiana Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Continue bridge inspection and improvement efforts to prevent damage during flood events	Flooding	Butler Co Road Dept / City Administration	Federal/State/Local	High	Low
5	Maintain all roadways to allow access for emergency response, recovery and repair, and continuity of delivery services	All	Butler Co Road Dept / City Administration	Federal/State/Local	High	Low
5	Continue monitoring of emergency water supply during disaster events and assess generator needs for water supply	All	Butler County EMA / Water Dept	State/Local	High	High
5	Procurement of two generators for critical facilities	All	City Administration / Butler County EMA	Federal/State/Local	High	Moderate
5	Limit non-critical water consumption during severe drought conditions	Drought / Extreme Heat	Water Dept	Local	Medium	High
5	Continue inventory of emergency response services and assess needs	All	Butler County EMA / City Administration	Local	High	High
1,4	Investigate need and feasibility for establishing a local reserve fund for repairing and/or incorporating hazard mitigation measures for public and private facilities and infrastructure that are at risk from natural hazards	All	City Administration	Local	High	High
1	Continue to research and provide hazard mitigation, emergency preparedness, and disaster recovery grant management	All	Butler County EMA	Local	Medium	High
5	Investigate need for and acquire emergency generators to provide back-up power to critical facilities	All	Butler County EMA / City Administration	Federal/State/Local	High	Moderate
1	Provide assistance with implementation and update of hazard mitigation plan	All	Butler County EMA / City Administration	Local	High	High
5	Provide for incident command training for local emergency personnel	All	Butler County EMA / City Administration	Federal/State/Local	High	High

City of Georgiana Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
2,5	Continue to identify critical facilities and evaluate potential mitigation techniques for each	All	City Administration	Local	High	High
1	Incorporate development of Geographic Information Systems (GIS) for database of critical facilities, infrastructure, and other applicable data to assist in hazard risk assessments	All	Butler County EMA / SCADC / City Administration	State/Local	Medium	Moderate
6	Continue coordination with various local agencies (e.g. DHR, Board of Education, local churches) to assist with distribution of information	All	Butler County EMA / Local Agencies	Local	High	High
2,3	Promote land management course of training with County Extension System for decrease of property damage	All	Butler County EMA / County Extension Service / City Administration	State/Local	High	High
6	Develop broadcast public service announcements for local television	All	Butler County EMA / Various Agencies	Local	High	Moderate
6	Develop print public service announcements for publication	All	Butler County EMA / Various Agencies	Local	High	High
6	Continue incorporation of hazard mitigation awareness in local schools	All	Butler County Board of Education	State/Local	High	High
6	Continue distribution of hazard-related coloring and activity books	All	Butler County EMA / Board of Education	Federal/State/Local	High	High

City of Greenville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Designation of volunteer central emergency coordinator	All	City Administration	Local	Completed	N/A
5	Installation of three (3) outdoor warning sirens in past five (5) years	All	Butler County EMA	Federal/Local	Completed	N/A
5	Continued installation of additional outdoor warning siren	All	Butler County EMA	Federal/State/Local	High	Moderate
5	Maintain designation of a volunteer central emergency coordinator to better facilitate communications with the Butler County EMA	All	City Administration	Local Funds	High	High
5	Facilitate warning signage for limited visibility due to forest fires on major roads in targeted areas; especially during controlled burns	Wildfire	Butler County Road Dept / Alabama DOT / Alabama DPS	Federal/State/Local	High	High
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions to public	All	Butler County EMA	Federal/State/Local	High	High
4,5	Maintain and expand existing shelter facilities to provide adequate pre-disaster care and space, as needed; add additional generators; need to include shelter training and communication/shelter training	High Winds	Shelter Operators / Red Cross	Federal/State/Local	High	High
2,5	Designate and upgrade/retrofit, as necessary, existing public facilities to provide shelter	High Winds	Butler County EMA / City Administration	Federal/State/Local	High	Moderate
4	Investigate construction of a new public shelter facility, including at school campuses and outdoor recreation areas	High Winds	Butler County EMA / City Administration	Federal/State/Local	High	Moderate
4	Secure funds for individual safe rooms	High Winds	Butler County EMA	Federal/Private	High	High
4	Work with developers, homebuilders, and contractors to promote construction of a safe room in all new residential development	High Winds	Butler County EMA / Planning Dept	Local	High	High

City of Greenville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
6	Publicize information on locations of existing public shelter and appropriate use	High Winds	Butler County EMA / Red Cross	Local	High	High
1	Incorporate and enforce flood management provisions in all land use and zoning regulations	Flooding	Planning Dept	Local	High	High
1	Maintain and update Comprehensive Plan and ensure future land use and growth plans do not extend development into flood plains	Flooding	Planning Dept	Local	High	High
1	Continue enforcement of modern building codes	All	Planning Dept	Local	High	High
1	Ensure the Butler County EMA is involved in reviewing local planning documents	All	Planning Dept	Local	High	High
2	Acquisition of properties in floodplains to be used for open space and other recreational activities	Flooding	Planning Dept	Federal/State/Local	High	Moderate
1	Utilize zoning ordinance for development in urban fringe areas in City limits	Wildfire	Planning Dept	Local	High	High
3,6	Establish education program on buffer construction and fire breaks in wildland interface areas	Wildfire	Butler County EMA / Greenville Fire Dept	Federal/State/Local	High	High
3,6	Support Alabama Forestry Commission efforts to educate private landowners on best practices	Wildfire	Butler County EMA / Greenville Fire Dept	Local	High	High
3,6	Continued implementation of public awareness and education efforts about water conservation and quality	Drought / Extreme Heat	Butler County EMA / Water Dept	Local	High	High
5,6	Work with medical providers to develop emergency supplies and education program through the Healthcare Coalition	All	Butler County EMA / Dept of Public Health / County Health Dept / Medical Providers	Local	High	High
4	Continue to evaluate flood prone roads to limit erosion and flood damage	Flooding	Butler Co Road Dept / Public Works	State/Local	High	High

City of Greenville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Improve drainage conditions along Overlook Road, near Middle School	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Continue bridge inspection and improvement efforts to prevent damage during flood events	Flooding	Butler Co Road Dept / Public Works	Federal/State/Local	High	Low
5	Maintain all roadways to allow access for emergency response, recovery and repair, and continuity of delivery services	All	Butler Co Road Dept / Public Works	Federal/State/Local	High	Low
5	Continue monitoring of emergency water supply during disaster events and assess generator needs for water supply	All	Butler County EMA / Water Dept	State/Local	High	High
5	Limit non-critical water consumption during severe drought conditions	Drought / Extreme Heat	Water Dept	Local	Medium	High
5	Continue inventory of emergency response services and assess needs	All	Butler County EMA / City Administration	Local	High	High
1,4	Investigate need and feasibility for establishing a local reserve fund for repairing and/or incorporating hazard mitigation measures for public and private facilities and infrastructure that are at risk from natural hazards	All	City Administration	Local	High	High
1	Continue to research and provide hazard mitigation, emergency preparedness, and disaster recovery grant management	All	Butler County EMA	Local	Medium	High
5	Investigate need for and acquire emergency generators to provide back-up power to critical facilities	All	Butler County EMA / City Administration	Federal/State/Local	High	Moderate
5	Procurement of two generators for emergency operations	All	Greenville Fire Dept	Federal/State/Local	High	Moderate
1	Provide assistance with implementation and update of hazard mitigation plan	All	Butler County EMA / City Administration	Local	High	High
5	Provide for incident command training for local emergency personnel	All	Butler County EMA / City Administration	Federal/State/Local	High	High

City of Greenville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
2,5	Continue to identify critical facilities and evaluate potential mitigation techniques for each	All	City Administration	Local	High	High
1	Incorporate development of Geographic Information Systems (GIS) for database of critical facilities, infrastructure, and other applicable data to assist in hazard risk assessments	All	Butler County EMA / SCADC / Planning Dept	State/Local	High	Moderate
6	Continue coordination with various local agencies (e.g. DHR, Board of Education, local churches) to assist with distribution of information	All	Butler County EMA / Local Agencies	Local	High	High
2,3	Promote land management course of training with County Extension System for decrease of property damage	All	Butler County EMA / County Extension Service / City Administration	State/Local	High	High
6	Develop broadcast public service announcements for local television	All	Butler County EMA / Various Agencies	Local	High	Moderate
6	Develop print public service announcements for publication	All	Butler County EMA / Various Agencies	Local	High	High
6	Continue incorporation of hazard mitigation awareness in local schools	All	Butler County Board of Education	State/Local	High	High
6	Continue distribution of hazard-related coloring and activity books	All	Butler County EMA / Board of Education	Federal/State/Local	High	High

Town of McKenzie Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Designation of volunteer central emergency coordinator	All	City Administration	Local	Completed	N/A
5	Installation of outdoor warning sirens	All	Butler County EMA	Federal/State/Local	High	Moderate
5	Maintain designation of a volunteer central emergency coordinator to better facilitate communications with the Butler County EMA	All	Town Administration	Local Funds	High	High
5	Facilitate warning signage for limited visibility due to forest fires on major roads in targeted areas; especially during controlled burns	Wildfire	Butler County Road Dept / Alabama DOT / Alabama DPS	Federal/State/Local	High	High
5	Investigate use of phone messaging system to provide warning of all impending hazardous conditions	All	Butler County EMA	Federal/State/Local	High	High
4,5	Maintain and expand existing shelter facilities to provide adequate pre-disaster care and space, as needed; add additional generators; need to include shelter training and communication/shelter training	High Winds	Shelter Operators / Red Cross	Federal/State/Local	High	High
4,5	Designate and upgrade/retrofit, as necessary, existing public facilities to provide shelter	High Winds	Butler County EMA / Town Administration	Federal/State/Local	High	Moderate
4	Investigate construction of a new public shelter facility, including at school campuses and outdoor recreation areas	High Winds	Butler County EMA / Town Administration	Federal/State/Local	Low	Moderate
4	Secure funds for individual safe rooms	High Winds	Butler County EMA / Town Administration	Federal/Private	High	High
4	Work with developers, homebuilders, and contractors to promote construction of a safe room in all new residential development	High Winds	Butler County EMA / Town Administration	Local	Medium	High
6	Publicize information on locations of existing public shelters and appropriate use	High Winds	Butler County EMA / Red Cross	Local	High	High

Town of McKenzie Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Incorporate and enforce flood management provisions in all land use and zoning regulations	Flooding	Town Administration	Local	Medium	High
1	Ensure future land use and growth plans do not extend development into flood plains	Flooding	Town Administration	Local	Medium	High
1	Develop long-range growth and development plan to address permitting and construction	All	Town Administration	Federal/State/Local	Medium	High
1	Adopt and enforce modern building codes	All	Town Administration	Local	Medium	High
1	Ensure the Butler County EMA is involved in reviewing local planning documents	All	Town Administration	Local	Medium	High
2	Acquisition of properties in floodplains to be used for open space and other recreational activities	Flooding	Town Administration	Federal/State/Local	Low	Moderate
1,3	Join the NFIP program	Flooding	Town Administration	Local	Medium	High
1,2	Promote firewise building practices in urban fringe areas	Wildfire	Town Administration	Local	High	High
3,6	Establish education program on buffer construction and fire breaks in wildland interface areas	Wildfire	Butler County EMA / McKenzie Fire Dept	Federal/State/Local	High	High
3,6	Support Alabama Forestry Commission efforts to educate private landowners on best practices	Wildfire	Butler County EMA / McKenzie Fire Dept	Local	High	High
3,6	Continued implementation of public awareness and education efforts about water conservation and quality	Drought / Extreme Heat	Butler County EMA / Water Dept	Local	High	High
5,6	Work with medical providers to develop emergency supplies and education program through the Healthcare Coalition	All	Butler County EMA / Dept of Public Health / County Health Dept / Medical Providers	Local	High	High
4	Continue to evaluate flood prone roads to limit erosion and flood damage	Flooding	Butler Co Road Dept / Town Administration	State/Local	High	High

Town of McKenzie Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Improve drainage conditions along North Garland Road, in front of school	Flooding	Town Administration	Federal/State/Local	Medium	Moderate
4	Continue bridge inspection and improvement efforts to prevent damage during flood events	Flooding	Butler Co Road Dept / Town Administration	Federal/State/Local	High	Low
5	Maintain all roadways to allow access for emergency response, recovery and repair, and continuity of delivery services	All	Butler Co Road Dept / Town Administration	Federal/State/Local	High	Low
5	Continue monitoring emergency water supply during disaster events and assess generator needs for water supply	All	Butler County EMA / Water Dept	State/Local	High	High
5	Limit non-critical water consumption during severe drought conditions	Drought / Extreme Heat	Water Dept	Local	Medium	High
5	Continue inventory of emergency response services and assess needs	All	Butler County EMA / Town Administration	Local	High	High
1,4	Investigate need and feasibility for establishing a local reserve fund for repairing and/or incorporating hazard mitigation measures for public and private facilities and infrastructure that are at risk from natural hazards	All	Town Administration	Local	High	High
1	Continue to research and provide hazard mitigation, emergency preparedness, and disaster recovery grant management	All	Butler County EMA	Local	Medium	High
5	Investigate need for and acquire emergency generators to provide back-up power to critical facilities	All	Butler County EMA / Town Administration	Federal/State/Local	High	Moderate
5	Procurement of additional generators at critical facilities for operations	All	Butler County EMA / Town Administration	Federal/State/Local	High	Moderate
1	Provide assistance with implementation and update of hazard mitigation plan	All	Butler county EMA / Town Administration	Local	High	High
5	Provide for incident command training for local emergency personnel	All	Butler County EMA / Town Administration	Federal/State/Local	High	High

Town of McKenzie Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
2,5	Continue to identify critical facilities and evaluate potential mitigation techniques for each	All	Town Administration	Local	High	High
1	Incorporate development of Geographic Information Systems (GIS) for database of critical facilities, infrastructure, and other applicable data to assist in hazard risk assessments	All	Butler County EMA / SCADC / Town Administration	State/Local	Medium	Moderate
6	Continue coordination with various local agencies (e.g. DHR, Board of Education, local churches) to assist with distribution of information	All	Butler County EMA / Local Agencies	Local	High	High
2,5	Promote land management course of training with County Extension System for decrease of property damage	All	Butler County EMA / County Extension Service / Town Administration	State/Local	High	High
6	Develop broadcast public service announcements for local television	All	Butler County EMA / Various Agencies	Local	High	Moderate
6	Develop print public service announcements for publication	All	Butler County EMA / Various Agencies	Local	High	High
6	Continue incorporation of hazard mitigation awareness in local schools	All	Butler County Board of Education	State/Local	High	High
6	Continue distribution of hazard-related coloring and activity books	All	Butler County EMA / Board of Education	Federal/State/Local	High	High

5.4.4 Coffee County Jurisdictions Mitigation Actions

- 1. Coffee County**
- 2. City of Elba**
- 3. City of Enterprise**
- 4. Town of Kinston**
- 5. Town of New Brockton**

Coffee County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	All existing schools and any future new school construction should include sufficient “shelter spaces/safe rooms” to provide adequate protection and safety for all students and staff.	High Winds	Coffee County Schools / County Administration	HMGP/ADECA	High	Moderate
5	Provide critical facilities with back-up emergency generators. This includes the Coffee County Shop, Coffee County Engineer’s Office, and Coffee County Regional Landfill Scalehouse.	All	Coffee County Engineer	HMGP	High	Moderate
5	A large portion of rural Coffee County is currently not served by an outdoor warning siren system. The lack of this system places rural residents, including those at sporting events, in danger from severe weather or other phenomena. The county plans to improve the current outdoor warning siren system by installing additional sirens in populated areas and/or areas where there are substantial outdoor activities, including Pathways Wilderness Camp (152 PR 1204), Curtis Community along Hwy 141, and Camp Humming Hills Girl Scout Camp (657 CR 228)	All	Coffee County EMA	HMGP/ADECA/Local	High	Moderate
5	Assist citizens with obtaining the means to purchase individual shelters / safe rooms to protect themselves and their families from tornadoes and hurricanes.	High Winds	County Administration / Coffee County Citizens	HMGP/Private	High	High

Coffee County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue to participate in NFIP. The local Flood Damage Prevention resolution was updated in 2009. The County has successfully completed two Community Assistance Visits with the latest occurring in FY2009. These successes reinforce the County's commitment to and participation in the NFIP.	Flooding	NFIP Coordinator / Local Government Administration	HMGP/Local	High	High
5	Procure backup generator for Jack Water System to ensure water distribution during emergencies	All	Jack Water Authority	HMGP/Local	High	Moderate

City of Elba Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
2	Retrofitting of four sewer lift stations through elevation and upgrading	Flooding	City Administration	HMGP/Local	Completed	N/A
4	All existing schools and any future new school construction should include sufficient “shelter spaces/safe rooms” to provide adequate protection and safety for all students and staff.	High Winds	Elba City Schools / City Administration	HMGP/ADECA	High	Moderate
5	Provide critical facilities with back-up emergency generators. The BOE proposes the purchase of one portable trailer-mounted 150KW emergency generator to support the school system on an as-required basis. Approximate cost of \$25,000.	All	Elba City Schools / City Administration	HMGP/ADECA	High	Moderate
5	Procure two generators to rotate among 40 sewer lift stations	All	City Administration	HMGP/Local	High	Moderate
5	Procure two generators to operate emergency shelters	All	City Administration	HMGP/Local	High	Moderate
5	Procure a generator for City Shop that supports multiple City departments with fueling, equipment repairs, and other emergency operations	All	City Administration	HMGP/Local	High	Moderate
5	Procure a generator for City Hall, which is the city’s emergency/disaster command center for sustained operations	All	City Administration	HMGP/Local	High	Moderate
5	Purchase debris removal equipment which would expedite debris removal, clearing of roads and restoration of power.	All	City Administration	State/Local	Medium	Moderate
1,2,3	Purchase additional flood pumps to be installed in the west end of the city to prevent future flooding in that area.	Flooding	City Administration	Federal/State/Local	Medium	Moderate

City of Elba Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Clearing project for two existing ditches located in the area of Whitman Street and Pinedale Drive. This would greatly improve flow capacity in and around that area.	Flooding	City Engineer	Local	Medium	Moderate
4	An erosion prevention and soil stabilization project at Elba City Schools complex to help eliminate future flood damage to both facilities and streets.	Flooding	City Engineer / County Engineer / NRCS	HMGP	Medium	Moderate
1	“Snagging and clearing” project on file with the US Army Corps of Engineers to improve flow capacity of the waterways in and around Elba, reducing out-of-bank conditions.	Flooding	City Engineer	US Army Corps of Engineers	Medium	Moderate
1,4	Elba is in the formative planning stages to determine requirements and estimate remodeling needed to convert an existing structure into a self-sufficient emergency operations center. The structure to be remodeled is the current Utility Operations Center, located at 475 Highway 203. The structure is located above the floodplain and is a substantial structure with emergency power. This will facilitate emergency operations should future flooding occur or should other factors make occupation of other portions of the city not possible.	All (primarily Flooding)	City Administration	Federal/Local	Medium	Moderate
1,3	Continue to participate in NFIP. The local Flood Damage Prevention resolution was updated in 2009.	Flooding	NFIP Coordinator	HMGP/Local	High	High

City of Elba Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
2	Acquisition or relocation of structures within FEMA-identified floodplain	Flooding	City Administration	HMGP/Private	Medium	Moderate
1	Study of Beaver Dam and Moore's Creek Basin to identify future mitigation projects to eliminate flooding in these areas.	Flooding	City Engineer	LEPC/HMGP	Low	Moderate
1	Acquisition of a bush hog attachment for a current excavator for clearing of river basin areas allowing for better flow of water	Flooding	City Engineer	HMGP/Local	High	High

City of Enterprise Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Safe Room insertion into new Enterprise High School	High Winds	Enterprise Schools	State/Local	Completed	N/A
2	Replacement of Northside Drive Bridge	Flooding	City Engineer	Local	Completed	N/A
1	Adopted updated building codes	All	City Engineer	Local	Completed	N/A
4	All existing schools and any future new school construction should also include sufficient “shelter spaces/safe rooms” to provide adequate protection and safety for all students and staff. In all existing school facilities and any future new school construction, retrofit select windows and doors with lockable metal shutters and add hurricane clips to the rafters, where applicable, or perform other structural reinforcement for other types of roof structures, as needed, to provide sufficient “ shelter spaces/safe rooms” for the safety of students and staff.	High Winds	Enterprise Schools / City Administration	HMGP/ADECA	High	Moderate
5	Install backup generators to provide limited back-up electrical service for communication when needed for the safety of students and staff.	All	Enterprise Schools / City Administration	HMGP/ADECA	High	Moderate
2	Evaluate and make necessary improvements to buildings and structures that may be in danger of damage from natural hazards, particularly flooding.	All (primarily Flooding)	NFIP Coordinator	HMGP/Local	Low	Moderate
4	Install drainage improvements on Dauphin Street to alleviate street flooding	Flooding	City Engineer	ALDOT/HMGP/Local	High	Moderate
4	Rehabilitate northeast and southeast sewage lagoons to remove sludge and debris from previous storms that have limited capacity and infiltration pump damage	All	City Engineer	HMGP/State/Local	High	Moderate

City of Enterprise Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Rehabilitate drainage channel from Dauphin Street to Hillcrest Loop, which conveys storm drainage from Downtown. Years of erosion has increased flow restriction in the channel.	Flooding	City Engineer	HMGP/Local	High	Moderate
5	Provide critical facilities with emergency generators to support critical systems / activities until normal power is restored.	All	City Administration	HMGP/ADECA	High	Moderate
1,2	Continue to update City's planning documents, including Comprehensive Plan, zoning and subdivision regulations, and building codes. The Comprehensive Plan needs to include any relation between proposed land use and floodplain development, storm water management, drainage problems, and other hazardous areas. The zoning ordinance needs to include special zoning provisions for hazardous areas, including flood prone areas. The city needs to adopt the most current edition of the International Building Codes to provide the most stringent regulations for multiple hazards. These actions will require the services of a professional planner. It is estimated that the cost could approach \$50,000.	All (primarily Flooding)	City Administration / Building Dept	State/Local	Medium	High
1,5	Identification of critical facilities, such as government buildings, health care centers, schools and infrastructure, is ongoing. These facilities should have their own emergency response plans for any hazards they may be exposed to. Generate or revise emergency response plans accordingly. Determine the potential impact of the loss of the facility in terms of economic loss and impact on the community.	All	City Engineer	HMGP/Local	Medium	High

City of Enterprise Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5,6	Provide early warning of impending hazards to areas of the city not already covered through expansion of the existing siren system, including broadcast warnings over television and radio. Currently, the highest priority is the addition of an outdoor warning siren in the Oak Ridge Forest subdivision in southern Enterprise.	All	City Engineer	HMGP/Local	High	High
1,4	Develop and implement a program to inspect and clean the storm drainage system.	All	City Engineer	HMGP / Public Works Dept	Low	High
1,4	Identify and implement a program for widening, straightening, removing, and/or replacing bridge and culvert restrictions.	All	City Engineer	HMGP / Public Works Dept	Low	Moderate
1	Upgrade the City's mapping services by developing a GIS and GPS system of mapping with the capability of inserting FIRM data.	All	Coffee County E-911	ADECA/Local	Medium	High
4,5	Install a safety shelter at the airport to include a generator for back-up emergency services.	All	City Administration	HMGP/ADECA	High	Moderate
1,3	Continue to participate in NFIP. The local Flood Damage Prevention resolution was updated in 2009.	Flooding	NFIP Coordinator	HMGP/Local	High	High
4	Repair scouring at Dixie Drive bridge. Build retaining walls on either end to prevent future trouble.	Flooding	City Engineer	HMGP/Local	High	Moderate
4	Replace rusted stormwater pipe at Grimes Street / West Hildreth Avenue intersection, due to it being rusted.	Flooding	City Engineer	HMGP/Local	High	Moderate
4	Build catch basin on David Road to collect stormwater runoff and channel to shoulders to prevent road damage.	Flooding	City Engineer	HMGP/Local	High	Moderate

Town of Kinston Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	All existing schools and any future new school construction should include sufficient “shelter spaces/safe rooms” to provide adequate protection and safety for all students and staff.	High Winds	Coffee County Schools	HMGP/ADECA	High	Moderate
4	Conduct study to address the drainage problems of the downtown area. During storms with one to two inches of rainfall in a short time frame, Main Street becomes inundated with four to six inches of water which poses an extreme hazard to motorists. During heavy storms with long periods of heavy rain, the downtown drainage system (off Main Street and Gilmer Street) is unable to accommodate the volume of stormwater due to the inadequate size of the drainage system. This causes stormwater to back up. Water has backed up to the sidewalk on Main Street and has crossed over Gilmer Street and almost entered a house on the adjoining property. According to an engineering cost estimate, it will only cost approximately \$77,000 to remediate the downtown drainage problems, which will prevent the potential loss of hundreds of thousands of dollars in damages to Kinston’s infrastructure and private property.	Flooding	Town Administration	HMGP / Coffee Co Road and Bridge	Medium	Moderate
1,3	Continue to participate in NFIP. The local Flood Damage Prevention resolution was updated in 2009.	Flooding	NFIP Coordinator	HMGP/Local	High	High
5	Purchase one 45KW emergency generator to operate the town’s water well during power outages.	All	Town Administration	HMGP/ADECA	High	Moderate

Town of Kinston Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Construction of an additional water well to ensure supply during a disaster. Currently, water supply is supplemented by Opp and Covington County systems, which are restricted during a disaster and early response/recovery, which limits Kinston's water supply.	All	Town Administration	USDA/CDBG	High	Moderate
5	Purchase an additional 45KW emergency generator to operate the town's proposed second water well during power outages.	All	Town Administration	HMGP/ADECA	High	Moderate
5	Purchase a generator for Senior Center facility	All	Town Administration	HMGP/ADECA	Medium	Moderate
5	Purchase fire suppression sprinkler systems for Senior Center and Town Hall	All	Town Administration	Federal/Local	Medium	Moderate
4,5	All new construction, especially those occupied by at-risk populations such as senior centers, should include sufficient protection for all occupants.	All (primarily High Winds)	Town Administration	HMGP/ADECA	High	Moderate
2	Retrofit new Senior Center with a safe room and/or lockable metal shutters and hurricane clips	All (primarily High Winds)	Town Administration	HMGP/ADECA	High	Moderate

Town of New Brockton Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	All existing schools and any future new school construction should include sufficient “shelter spaces/safe rooms” to provide adequate protection and safety for all students and staff.	High Winds	Coffee County Schools	HMGP/ADECA	High	Moderate
1,3	Continue to participate in NFIP. The local Flood Damage Prevention resolution was updated in 2009.	Flooding	NFIP Coordinator	HMGP/Local	High	High
2,4	Upgrade wastewater treatment plant to reduce future storm damage	All	Water and Sewer Board	CDBG/ADEM/Local	High	Moderate
4	Pave Byrd Mill Road and upgrade stormwater drainage structures	All (primarily Flooding)	Town Administration	CDBG/Coffee Co Road and Bridge/Local	High	Moderate
5	Purchase emergency generators to operate Town Hall, Senior Center, and sewer lift stations and water system infrastructure for operation during disaster events. Three 100 KW generators and three portable 60 KW generators are needed.	All	Town Administration / Water and Sewer Board	HMGP/Local	High	Moderate
4	Repair low points on Highway 84 East and Highway 84 West where water flows over the road during heavy rains	Flooding	Town Administration	HMGP/State/Local	High	Moderate
4	Repair low point on State Highway 122 where water stands from heavy rain events	Flooding	Town Administration	HMGP/State/Local	High	Moderate
2	Retrofit Town Hall (old National Guard Armory) to meet wind codes, purchase and install an emergency generator to allow the building to serve as an emergency shelter. Internal surface finishing work is needed, as well as plumbing and electrical overhaul, and roof repairs.	All (primarily High Winds)	Town Administration	HMGP/Local	High	Moderate
5,6	Provide additional communications and control capability for use during disaster events	All	Town Administration / Coffee County EMA	HMGP/State/Local	High	Moderate

Town of New Brockton Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Improve drainage conditions on Tyler Street, Medley Road, Youngblood Road, Durham Street, South John Street, Willow Street, and Sparks Street	Flooding	Town Administration / Coffee Co Engineer	HMGP / Coffee Co Road and Bridge	High	Moderate
4	Pave and widen Medley Road, Knight Street, Willow Street, Pearl Street, and Corey Street to accommodate two-way traffic to facilitate rescue and evacuation	All	Town Administration / Coffee Co Engineer	HMGP / Coffee Co Road and Bridge	High	Moderate
4,5	Replace wooden bridges on Byrd Mill Road and Medley Road, bringing them up to standards. There is only one way into the communities on these roads and emergency vehicles cannot get through when the bridges are flooded.	All	Town Administration / Coffee Co Engineer	HMGP / Coffee Co Road and Bridge	High	Moderate
4	Widen and upgrade drainage ditch between Vester Cole Street and South John Street to prevent flooding of residences and Post Office	Flooding	Town Administration / Coffee Co Engineer	HMGP / Coffee Co Road and Bridge	High	Moderate
4	Realign dangerous intersection at North John Street (Hwy 122) and Railroad Street	All	Town Administration / Coffee Co Engineer	HMGP / Coffee Co Road and Bridge	High	Moderate
4	Replace stormwater drainage structure at intersection of Caldwell Street and Youngblood Street	Flooding	Town Administration / Coffee Co Engineer	HMGP / Coffee Co Road and Bridge	Medium	Moderate

5.4.5 Covington County Jurisdictions Mitigation Actions

- 1. Covington County**
- 2. City of Andalusia**
- 3. Town of Babbie**
- 4. Town of Carolina**
- 5. City of Florala**
- 6. Town of Gantt**
- 7. Town of Heath**
- 8. Town of Horn Hill**
- 9. Town of Libertyville**
- 10. Town of Lockhart**
- 11. Town of Onycha**
- 12. City of Opp**
- 13. Town of River Falls**
- 14. Town of Red Level**
- 15. Town of Sanford**

Covington County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Upgraded following bridges: Parrish Rd, Giles Rd, CR 45, Davis Rd, Clark Rd	Flooding	Cov County Road and Bridge	Federal/Local	Completed	N/A
4	Upgraded the following roads: Cotton House Rd, Sasser House Rd, Red Level School Parking Lot	All	Cov County Road and Bridge	Federal/Local	Completed	N/A
5	Continue development of a comprehensive outdoor warning siren network throughout County	All	Covington County EMA	Grant Funds	High	Moderate
6	Continue to provide public awareness for hazard events	All	Covington County EMA	Grant & Local Funds	High	High
6	Continue to provide printed information available to the public on natural hazards and safety	All	Covington County EMA	Grant & Local Funds	High	High
4,5	Continue surveillance and maintenance of Gantt and Point "A" dams	Dam Failure	PowerSouth Energy Coop	PowerSouth Energy Coop	High	High
4	Replace older bridges to meet AASHTO standards throughout county	Flooding	Cov County Road and Bridge	Local Funds	High	Low
4	Replace or upsize culverts as needed to prevent drainage impediments	Flooding	Cov County Road and Bridge	Local Funds	High	Moderate
4	Pave highly erodible and potentially flood prone roads that cross flood plains	Flooding	Cov County Road and Bridge	Grant & Local Funds	High	Moderate
4	Repair gulleys near right-of-way	Flooding	Cov County Road and Bridge	Grant and Local Funds	High	Moderate
4	Maintain county water system infrastructure	All	Cov County Water Authority	Grant and Local Funds	High	Moderate
4	Correct any sinkholes that occur in the County	Land Subsidence	Cov County Road and Bridge	Grant and Local Funds	High	Low
1	Continue to assess vulnerability of critical facilities and infrastructure within the County	All	Covington County EMA	Grant and Local Funds	High	High
2,4	Upgrade critical facilities	All	Agency overseeing facility	Grant and Local Funds	High	Low

Covington County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,6	Consult with the Covington County Forestry Office and Conecuh National Forest on wildfire prevention measures	Wildfire	Covington County EMA	Local Funds	High	High
2,5	Upgrade EMA office and Emergency Operations Center with FEMA-361 compliant safe room and generator	All	Covington County EMA	Grant Funds	High	Low
2,5	Upgrade E-911 building through adding FEMA-361 compliant safe room and expansion	High Winds (primary)/All (secondary)	Covington County E-911	Grant Funds	High	Low
5	Procurement of generator for E-911 building	All	Covington County E-911	Federal/State/Local	High	Moderate
1	Maintain updated Emergency Operations Plan	All	Covington County EMA	Federal/State/Local	High	Moderate
5	Procurement of generators for Covington County Volunteer Firefighters Association	All	Covington County EMA / Covington Co. Vol. Firefighters Assoc.	Federal/State/Local	High	Moderate
4	Construction of FEMA-361 compliant safe room at Covington Electric Coop headquarters	High Winds (primary)/All (secondary)	Covington Electrical Coop	Covington Electrical Coop / Federal	High	Low
5	Procurement of generator for Covington Electric Coop headquarters	All	Covington Electric Coop	Covington Electrical Coop / Federal	High	Moderate
4	Hardening of distribution lines throughout the Covington Electric Coop system	High Winds (primary)/All (secondary)	Covington Electric Coop	Covington Electrical Coop / Federal	High	Low
1	Upgrade mapping system to determine base floodplain elevations to assist with NFIP requirements	Flooding	Covington County EMA	Federal/State/Local	Medium	Moderate
2	Acquire and relocate flood prone structures and repetitive loss properties	Flooding	Covington County EMA	Federal/State/Local	Low	Low
5	Procure generators for county school facilities	All	Covington County Schools	Federal/State/Local	High	Moderate
5	Purchase generators for well and tank sites	All	Covington County Water Authority	Federal/State/Local	High	Moderate

Covington County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Install community safe rooms where needed	High Winds	Covington County EMA	Federal/State/Local	High	Low
4	Install individual safe rooms where needed	High Winds	Covington County EMA	Federal/State/Local	High	Moderate

City of Andalusia Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Implemented radio repeater system	All	Fire Department	Local	Completed	N/A
4	Drainage maintenance and cleaning program	Flooding	Public Works	Local	High	High
4	Street maintenance program	Flooding	Public Works	Federal/State/Local	High	Moderate
3	Open space and park maintenance	All	Leisure Services	Federal/State/Local	High	Moderate
6	Efficient communication between local government and citizens for public awareness	All	Various Departments	Local	High	High
1,5	Utilization of the Comprehensive Assessment System	All	Various Departments	Local	High	High
5	Utilization of the Drug Task Force truck as Command Post	All	Police Dept	Federal/State/Local	High	Moderate
5	Coordination of Anti-Terrorism Task Force and training	All	Police Dept	Federal/State/Local	High	Moderate
2	Hazard retrofit city's critical facilities and infrastructure	All	Planning and Development	Federal/State/Local	High	Low
4	Upgrade sewer outfall throughout the system as needed	Flooding	Utilities Board	Federal/State/Local	High	Low
1	Implement Water and Wastewater Guideline Standards and Specifications	All	Utilities Board	Local	High	Low
1,5	Installation of cameras in schools for security and safety purposes	All	Andalusia City Schools	Federal/State/Local	High	Moderate
5	Procure generators for school facilities	All	Andalusia City Schools	Federal/State/Local	High	Moderate
4	Provide drainage improvements at school facilities	Flooding	Andalusia City Schools / Public Works	Federal/State/Local	High	Moderate
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
5	Install additional outdoor warning sirens	All	Covington County EMA / Planning and Development	Federal/State/Local	High	Moderate
2	Work with PowerSouth Electric Cooperative to reduce lightning damage at school facilities	Severe Storms (Lightning)	Andalusia City Schools	Local	High	High

City of Andalusia Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
6	Promote “Building Safety Week”	High Winds	Planning and Development	Local	Medium	High
5	Develop emergency equipment storage at Coleman Center	All	Leisure Services	Local	Medium	Moderate
1	Maintain updated building codes	All	Planning and Development	Local	High	High
1	Continue to enforce zoning ordinance	All	Planning and Development	Local	High	High
5	Weekly tests for generators and continued upgrades	All	Planning and Development / Utilities Board	Federal/State/Local	High	High
1	Improve GIS mapping capabilities, including floodplain information and utility systems	All	Planning and Development / Utilities Board	Local	High	High
1	Promote standards for existing homes to be retrofitted to exceed minimal codes	All	Planning and Development	Local	High	High
1	Participate in regular training opportunities for safety and hazard mitigation topics	All	Various Departments	Local	High	High
4	Maintain electrical distribution system	All	Utilities Board	Local	High	High
5	Maintain and upgrade vehicles and equipment	All	Various Departments	Federal/State/Local	High	High
5	Add emergency auxiliary electricity to staging areas	All	Leisure Services	Local	Medium	Moderate
1	Update current policies and procedures	All	City Administration	Local	High	High
5	Procure portable generator for major intersections: E. Three Notch and Bypass; River Falls St and Bypass; Stanley St and E Three Notch; S. Three Notch and Bypass	All	Utilities Board	Federal/State/Local	Medium	Moderate
5	Installation of fiber optic cable to city facilities	All	Utilities Board	Local	Medium	Low
5	Secure preparation equipment	All	Leisure Services	Local	Medium	Moderate
4	Use manhole inserts in flood prone areas	Flooding	Public Works	Local	High	High
1	Support organizations, such as Alabama Rural Water Association, Conecuh-Sepulga Clean Water Partnership, and Alabama Water Pollution Control Assoc.	All	City Administration	Local	High	High

City of Andalusia Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Attend Covington County EMA exercises	All	City Administration	Local	High	High
4	Implement storm drainage improvements on north side of Bypass between Coleman Drive and Berry Avenue, to a flood prone area, beginning south of East Pass Road and ending at Lark Street, from East Watson Street, behind First Baptist Church, to South Cotton and Knox streets, to an eroding drainage ditch between Hilda Street and Manhattan Drive	Flooding	Public Works	Federal/State/Local	Medium	Low
4	Implement additional needed drainage studies and projects	Flooding	Public Works	Federal/State/Local	Medium	Moderate
2,5	Relocate existing 3-phase overhead power to underground at critical care facilities: Andalusia Regional Hospital and Andalusia Health Care	All	Utilities Board	Federal/State/Local	Medium	Low
5	Procure portable generator for Industrial Park lift stations: Airport and Client Logic	All	Utilities Board	Federal/State/Local	Medium	Moderate
5	Procure dedicated generators for lift stations: Lakeland Dr, Sanford Rd, CR 56, Meadowbrook Dr, Maple St, E. Pass Rd, Straughn School Rd, Moore Rd	All	Utilities Board	Federal/State/Local	Medium	Low
2	Wind retrofit of Andalusia Head Start Building and Bright Beginnings Preschool Building for use as an emergency shelter	High Winds	City Administration	Federal/State/Local	Medium	Low
5	Procure dedicated generators for the following water well sites: Well #4-Debro Hill, Well #5-Debro Hill, Well #7-Waites Dr, Well #9-Piney Woods Rd, Well#10-CR 43, Well #11-Rose Hill, with Well #7 and Well #9 being primary locations	All	Utilities Board	Federal/State/Local	Medium	Low

Town of Babbie Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Install generator at Babbie Fire Department	All	Babbie VFD	Federal/State/Local	High	Moderate
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town of Babbie / Covington County EMA	Local	High	High
4	Improve drainage problems	Flooding	Town of Babbie / Covington Co Road and Bridge	Federal/State/Local	High	Moderate
4	Improve unpaved streets that are washing out during rainfall events	Flooding	Town of Babbie / Covington Co Road and Bridge	Federal/State/Local	Medium	Low
2	Upgrade critical facilities	All	Town of Babbie / Babbie VFD	Federal/State/Local	Medium	Moderate
4	Maintenance and repair of water infrastructure	All	Cov Co Water Authority	Local	Medium	Moderate
5	Install additional outdoor warning sirens	All	Covington County EMA	Federal/State/Local	Low	Moderate

Town of Carolina Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Installation of water tank for consistent supply	All	Cov. Co Water Authority	Federal/Local	Completed	N/A
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
4	Monitor potential drainage problem along Firehouse Road	Flooding	Town of Carolina / Cov Co Road and Bridge	Local	High	Moderate
1	Consult with Covington County Forester	Wildfire	Town of Carolina	Local	High	High
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town of Carolina / Covington County EMA	Local	High	High
5	Install generator at Carolina Fire Department	All	Carolina VFD	Federal/State/Local	Medium	Moderate
4	Improve unpaved streets that are washing out during rainfall events	Flooding	Town of Carolina / Cov Co Road and Bridge	Local	Medium	Low
4	Maintenance and repair of water infrastructure	All	Cov Co Water Authority	Local	Medium	Moderate
5	Install additional outdoor warning siren	All	Covington County EMA	Federal/State/Local	Low	Moderate
2	Upgrade Carolina fire station	High Winds	Carolina VFD	Federal/State/Local	Low	Moderate

City of Florala Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Installation of two generators: Central lift station and grit chamber	All	Florala Utilities	Federal/Local	Completed	N/A
2	Elevated new Central Y lift station	All	Florala Utilities	Federal/Local	Completed	N/A
4	Completed storm drainage improvements at the 6 th Ave / 5 th Ave intersection	Flooding	Street Dept	Local	Completed	N/A
4	Evaluation of sewage collection system	All	Florala Utilities	Local	High	High
4	Improve dirt roads, ditches, and inspect flumes	All	Street Dept	Local	High	High
1,3	Continue to work with County on NFIP requirements	Flooding	City Administration	Local	High	High
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
5	Install generators for school facilities	All	Covington County Schools	Federal/State/Local	High	Moderate
5	Install generators for seven sewer lift stations and two water wells	All	Florala Utilities	Federal/State/Local	High	Moderate
2	Elevate three lift stations: Lake Jackson, 2 nd Avenue, Gilmer Avenue	Flooding	Florala Utilities	Federal/State/Local	High	Moderate
4	Storm drainage improvements at the 6 th Ave / 7 th St intersection	Flooding	Street Dept	Federal/State/Local	High	Moderate
4	Storm drainage improvements at the 5 th Ave / 4 th St intersection	Flooding	Street Dept	Federal/State/Local	High	Moderate
4	Storm drainage improvements at the 7 th St / 4 th St intersection	Flooding	Street Dept	Federal/State/Local	High	Moderate
4	Storm drainage improvements at the 6 th Ave / 5 th Ave intersection	Flooding	Street Dept	Federal/State/Local	High	Moderate
4	Storm drainage improvements on 5 th Ave, including reconstructing drainage ditch from 8 th St to 10 th St	Flooding	Street Dept	Federal/State/Local	High	Moderate
4	Improve storm drainage facilities and repair underground erosion	Flooding	Street Dept	Federal/State/Local	Medium	Moderate
2	Renovate/upgrade existing emergency shelter	High Winds / Flooding	City Administration	Federal/State/Local	Medium	Moderate

Town of Gantt Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Upgraded water system in Rawls Subdivision	All	Town Administration	Federal/Local	Completed	N/A
4	Work with PowerSouth Energy Coop regarding Gantt Dam safety measures	Dam Failure	Town Administration	Local	High	High
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
4	Replace of upsize culverts as needed	Flooding	Town of Gantt / Cov Co Road and Bridge	Federal/State/Local	High	Moderate
4	Repair gulleys along rights-of-way	Flooding	Town of Gantt / Cov Co Road and Bridge	Federal/State/Local	High	Moderate
4	Improve drainage problems between Hwy 29 and Commerce St	Flooding	Town of Gantt / Cov Co Road and Bridge	Federal/State/Local	High	Moderate
4	Improve drainage problems behind Town Hall	Flooding	Town of Gantt / Cov Co Road and Bridge	Federal/State/Local	High	Moderate
5	Generator for Town Hall/Police Station	All	Town Administration / Police Dept	Federal/State/Local	High	Moderate
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town Administration	Local	High	High
4	Maintenance of ditches	Flooding	Town of Gantt / Cov Co Road and Bridge	Local	High	High
4	Installation of radio read water meters	All	Town of Gantt	Federal/State/Local	High	High
2	Wind retrofit at Town Hall for first responders	All	Town of Gantt	Federal/State/Local	High	Moderate

Town of Heath Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Upgraded substantial portion of water system through increasing water main diameter and adding fire hydrants	All	Town Administration	Federal/Local	Completed	N/A
4	Replace undersized or deteriorated culverts	Flooding	Town Administration / Cov Co Road and Bridge	Local	High	High
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
4	Improve drainage problem at intersection of Straughn School Rd / CR 70	Flooding	Town Administration / Cov Co Road and Bridge	Federal/State/Local	Medium	Moderate
5	Generator for Town Hall / Fire Station	All	Town Administration / Heath Vol Fire Dept	Federal/State/Local	Medium	Moderate
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town Administration	Local	Medium	Low
5	Radio base station for Fire Dept	All	Heath Vol Fire Dept	Federal/State/Local	Medium	Moderate

Town of Horn Hill Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Monitor bridges over Indian Creek	Flooding	Town Administration / Cov Co Road and Bridge	Local	High	High
4	Monitor ditch culverts	Flooding	Town Administration / Cov Co Road and Bridge	Local	High	High
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
5	Generator for Community Center	All	Town Administration	Federal/State/Local	High	Moderate
4	Deep well pump at Community Center	All	Town Administration	Federal/State/Local	Medium	Low
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town Administration	Federal/State/Local	Medium	High

Town of Libertyville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town Administration	Local	Medium	High
5	Generator for Town Hall / Fire Dept	All	Town Administration / Libertyville VFD	Federal/State/Local	Medium	Moderate
4	Improve drainage ditch along Hwy 55	Flooding	Covington Co Road and Bridge	Local	Medium	Moderate
4	Construction of an elevated water storage tank	All	Covington County Water Authority	Federal/State/Local	Medium	Moderate

Town of Lockhart Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Improvements to sewer system	All	Town Administration	Federal/Local	Completed	N/A
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
5	Procure generator for main water well	All	Town Administration	Federal/State/Local	High	Moderate
5	Procure generator for wastewater treatment plant	All	Town Administration / Floralta Utilities	Federal/State/Local	High	Moderate
5	Procure generator for W.S. Harlan Elementary School	All	Covington Co Schools	Federal/State/Local	High	Moderate
4	Drainage improvements on Chickasaw Ave	Flooding	Town Administration	Federal/State/Local	High	Moderate
4	Drainage improvements along portions of Cherokee St and Choctaw St	Flooding	Town Administration	Federal/State/Local	High	Moderate
4	Repair drainage ditch on Chippeway St near old railroad track	Flooding	Town Administration	Federal/State/Local	High	Moderate
4	Repair eroded ditches along Mohawk St from north side of Rappahannock Ave	Flooding	Town Administration	Federal/State/Local	High	Moderate
4	Repair eroded ditches and damaged pavement along Rappahannock Ave and Osage Ave	Flooding	Town Administration	Federal/State/Local	High	Moderate
4	Repair sewer outfall line along Osage St	All	Town Administration	Federal/State/Local	High	Moderate
4	Develop new water supply well	All	Town Administration	Federal/State/Local	High	Moderate
4	Repair eroded access road to wastewater treatment plant	All	Town Administration	Federal/State/Local	Medium	Moderate
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town Administration	Local	Medium	High

Town of Onycha Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Keep drainage ditches clear of impediments	Flooding	Town Administration / Cov Co Road and Bridge	Local	High	High
4	Replace deteriorated culverts	Flooding	Town Administration / Cov Co Road and Bridge	Local	High	High
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
5	New pumper truck	All	Onycha VFD	Federal/State/Local	High	Moderate
5	Procure generator to the Onycha well/tank	All	Covington County Water Authority	Federal/State/Local	High	Moderate
1,3	Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Flooding	Town Administration	Local	Medium	High

City of Opp Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Replaced sewer main east of Woodham Cir	All	Opp Utilities	Federal/Local	Completed	N/A
4	Replaced sewer mains located in and adjacent to a tributary of Cameron Creek, beginning at west of Mullins Ave and ending at Barnes St	All	Opp Utilities	Federal/Local	Completed	N/A
4	Replaced section of sewer main that crosses under Hwy 331 near Cooperative Propane	All	Opp Utilities	Federal/Local	Completed	N/A
5	Procured generators for three (3) sewer lift stations	All	Opp Utilities	Federal/Local	Completed	N/A
5	Procured four (4) portable generators to be used at several sewer lift stations	All	Opp Utilities	Federal/Local	Completed	N/A
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
1,3	Implementation of Zoning Ordinance	Flooding	City Planner	Local	High	High
4	Drainage management	Flooding	City Planner	Local	High	High
4	Tree management to prevent power line damage	High Winds	City Planner	Local	High	High
4	Continue sewer work in the vicinity of Indian Creek	All	Opp Utilities	Federal/State/Local	High	Moderate
2	Emergency services shelter areas	All	City Planner	Federal/State/Local	Medium	Low
4,6	Promote safe room implementation	High Winds	City Planner	Local	Medium	High
4	Storm drainage improvements to Duval Dr and Maloy St	Flooding	City Planner	Federal/State/Local	Medium	Low
4	Repair/replace existing sanitary sewer mains at tributary of Cameron Creek, beginning at 6 th Ave and ending north of Opine Rd	All	Opp Utilities	Federal/State/Local	Medium	Low
5	Provide dedicated generators to the following pump stations: Capitol Heights, City Yard, and Pittman Lift	All	Opp Utilities	Federal/State/Local	Medium	Moderate

Town of Red Level Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Procured generator for water well	All	Town Administration	Federal/Local	Completed	N/A
4	Storm drainage improvements along North Street	Flooding	Town Administration	Federal/Local	Completed	N/A
4	Removal of trees affecting utility service	High Winds	Town Administration	Local	High	High
1,3	Work with County regarding NFIP program	Flooding	Town Administration	Local	High	High
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
2	Work to retrofit critical facilities as funds are available	All	Town Administration	Local	High	Low
5	Procure dedicated generator for Town Hall	All	Town Administration	Federal/State/Local	High	Moderate
5	Procure dedicated generators for school sites	All	Covington Co Schools	Federal/State/Local	High	Moderate
4	Riprap drainage ditch that runs east from North St	Flooding	Town Administration	Federal/State/Local	High	Low
4	Drainage improvements along CR 107 near North St	Flooding	Town Administration	Federal/State/Local	High	Low
4	Replace undersized storm drainage culverts	Flooding	Town Administration / Covington Co Road and Bridge	Federal/State/Local	High	Moderate
5	Procure dedicated generator for Town Hall Annex (old Tri-County Clinic)	All	Town Administration	Federal/State/Local	Medium	Moderate
5	Install additional outdoor warning siren	All	Town Administration	Federal/State/Local	Medium	Moderate
2	Retrofit Town Hall	All	Town Administration	Federal/State/Local	Medium	Low

Town of River Falls Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
1	Enforcement of zoning ordinance	All	Town Administration	Local	High	High
1,3	Managing floodplain development through NFIP regulations	Flooding	Town Administration	Local	High	High
2,6	Educate residents of floodplain requirements and flood-proofing information	Flooding	Town Administration	Local	High	High
4	Regular maintenance of water system	All	Town Administration	Local	High	High
4	Maintain bridges and culverts	All	Town Administration / Cov Co Road and Bridge	Local	High	High
4	Regular maintenance of streets	All	Town Administration / Cov Co Road and Bridge	Federal/State/Local	High	High
2	Work to retrofit critical facilities as funds are available	All	Town Administration	Federal/State/Local	High	Low
5	Supply critical facilities with emergency provisions for displaced persons during disaster	All	Town Administration	Federal/State/Local	High	High
5	Procure two portable generators to provide source of power for critical facilities	All	Town Administration	Federal/State/Local	High	Moderate
4	Work with PowerSouth Electric Coop on dam mitigation measures	Dam Failure	Town Administration	Local	High	High
1	Implement GIS mapping system for utility and floodplain development purposes	All	Town Administration	Federal/State/Local	Medium	Moderate
1	Adopt building codes to regulate integrity of buildings	All	Town Administration	Local	Medium	High
1	Promote standards for existing homes to be retrofitted so they exceed minimal codes	All	Town Administration	Local	Medium	High
4	Pave highly erodible and potentially flood prone streets that cross flood plains	Flooding	Town Administration / Cov Co Road and Bride	Federal/State/Local	Medium	Moderate
4	Repair gulleys near right-of-way	Flooding	Town Administration / Cov Co Road and Bridge	Federal/State/Local	Medium	Moderate

Town of Sanford Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Installation of community safe rooms and individual safe rooms in critical locations	High Winds	Covington County EMA	Federal/State/Local	High	Low
4	Improve unpaved roads	All	Town Administration / Cov Co Road and Bridge	Federal/State/Local	High	Moderate
4	Maintain drainage facilities	Flooding	Town Administration / Cov Co Road and Bridge	Local	High	High
4	Repair gulleys near right-of-way	Flooding	Town Administration / Cov Co Road and Bridge	Federal/State/Local	High	Moderate
5	Procure generators for critical facilities	All	Town Administration / Sanford VFD	Federal/State/Local	High	Moderate
4	Maintain water system	All	Cov Co Water Authority	Federal/State/Local	High	High

5.4.6 Geneva County Jurisdictions Mitigation Actions

- 1. Geneva County**
- 2. Town of Black**
- 3. Town of Coffee Springs**
- 4. City of Geneva**
- 5. City of Hartford**
- 6. Town of Malvern**
- 7. City of Samson**
- 8. City of Slocomb**

Geneva County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Replacement of several bridges throughout County damaged in flooding	All	Geneva County Engineer	Federal/State/Local	Completed	N/A
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Continue to maintain and update flood mapping and watershed plans, subdivision regulations, and other planning documents	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Prepare pilot flood response plan	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	County Administration	Local	High	High
1	Utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	County Administration	Local	Medium	High
4	Continue to inspect and correct storm drain systems	Flooding	Geneva County Engineer	HMGP/Local	High	Moderate
5	Install safety equipment in critical facilities	All	Geneva County EMA	HMGP/Local	High	Moderate
1	Work with developers to locate all utilities underground in new subdivisions	All	Geneva County Engineer	Private	Low	High
1	Work with developers to design commercial structures to withstand wind gusts of 100 to 110 miles per hour	High Winds	Geneva County Engineer	Private	High	High
1	Establish a building department with inspectors	All	Geneva County Engineer	Local	High	Moderate
4	Implement objectives from Storm Water Management Manual in subdivision regulations	Flooding	Geneva County Engineer	HMGP/Local	High	High
2,3	Acquire repetitively flooded properties in flood prone areas and convert acquired land to open space greenways	Flooding	Geneva County EMA	HMGP/Private/Local	Medium	Moderate
4	Prepare new drainage system maintenance procedures and correct deficient drainage facilities	Flooding	Geneva Co Road and Bridge	State/Local	Medium	Moderate

Geneva County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,2	Work with US Army Corps of Engineers to run hydrology tests in flood hazard areas to set base flood elevations	Flooding	NFIP Coordinator	Federal/Local	Medium	Moderate
2,3	Utilize a Greenway Plan to prioritize acquisition and clearing of floodways to expand recreational areas	Flooding	NFIP Coordinator	HMGP/Local	High	Moderate
2	Protect first floor of structures from flooding through proper drainage system design	Flooding	NFIP Coordinator	HMGP/Local	Medium	Moderate
2,3	Continue involvement with the CRP	Flooding	Geneva County EMA	HMGP/NRCS/Local	High	High
2,4	Identify critical facilities vulnerable to flooding and encourage warning and response plans to include any special needs	Flooding	Geneva County EMA	HMGP/Local	High	High
6	Provide advice and assistance on hazard mitigation measures to residents	All	Geneva County EMA	Local	High	High
2,6	Notify and educate public on methods of protecting their property	All	Geneva County EMA	Local	High	High
2,6	Notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Provide flood hazard information to inquirers	Flooding	NFIP Coordinator	Local	High	High
6	Prepare a homeowner's flood protection manual	Flooding	NFIP Coordinator	Local	Medium	Moderate
6	Conduct annual mailing to floodplain residents	Flooding	Geneva County EMA	Local	Medium	Moderate
6	Disclosure of flood hazard information to potential home buyers	Flooding	NFIP Coordinator	Local	Medium	High
6	Provide real estate agents with flood hazard information	Flooding	NFIP Coordinator	Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High

Geneva County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
6	Provide hazard mitigation information to public libraries	All	Geneva County EMA	Local	Medium	High
6	Issue news releases and articles on hazards	All	Geneva County EMA	Local	High	High
6	Make presentations at interested groups on hazard information	All	Geneva County EMA	Federal/Local	High	High
6	Publicize property protection projects	All	Geneva County EMA	Local	Medium	High
6	Educate public on being prepared for disaster situations and inform evacuation routes	All	Geneva County EMA	Local	Medium	High
5	Continue implementation of outdoor warning siren system	All	Geneva County EMA	HMGP/Local	High	Moderate
5	Purchase and maintain generators for emergency operations for critical facilities	All	Geneva County EMA	HMGP/Local	Medium	Moderate
2	Elevate appropriate structures two feet above floodplain elevation	Flooding	Geneva County EMA	HMGP/Local	High	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate
4	Work with US Army Corps of Engineers to maintain Geneva levee	Flooding	Geneva County EMA	Federal/Local	High	High
4	Improve the following bridges to assist in stream flow dynamics: Bridges 10, 11, 12, 51, 81, 92, 96, 106, 110, 112, 122, and 139	Flooding	Geneva Co Road and Bridge	Federal/Local	High	Moderate
4	Facilitate structural projects for hazard mitigation retrofits, as needed	All	Geneva County EMA	Federal/State/Local	High	Moderate
1	Research data to improve future risk analysis efforts	All	Geneva County EMA	Federal/State/Local	High	High
6	Incorporate hazard information on County's website	All	Geneva County EMA	Local	Medium	High
6	Facilitate stakeholder awareness of hazard mitigation plan	All	Geneva County EMA	Local	High	High

Town of Black Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	Town Administration	Local	High	High
1	Utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	Town Administration	Local	Medium	High
4	Prepare new drainage system maintenance procedures and correct deficient drainage facilities	Flooding	Town Administration / Geneva Co Road and Bridge	Local	Medium	Moderate
2,6	Notify owners of ways to protect property from flooding	Flooding	NFIP Coordinator	Federal/Local	Medium	High
2,6	Notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High
5	Install outdoor warning siren	All	Geneva County EMA	HMGP/Local	Medium	Moderate
5	Purchase and maintain generators for emergency operations for critical facilities	All	Town Administration	HMGP/Local	Medium	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate

Town of Coffee Springs Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	Town Administration	Local	High	High
1	Continue to utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	Town Administration	Local	Medium	High
4	Continue drainage system maintenance procedures and correct deficient drainage facilities	Flooding	Town Administration / Geneva Co Road and Bridge	Local	Medium	Moderate
2,6	Notify owners of ways to protect property from flooding	Flooding	NFIP Coordinator	Federal/Local	Medium	High
2,6	Continue to notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High
5	Install outdoor warning siren	All	Geneva County EMA	HMGP/Local	Medium	Moderate
5	Purchase and maintain generators for emergency operations for critical facilities	All	Town Administration	HMGP/Local	Medium	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate

City of Geneva Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Extensive drainage improvements in Whitney St, Brannon Ave, and E. Fleming Ave area	Flooding	City Administration	Federal/Local	Completed	N/A
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
4	Work with US Army Corps of Engineers to maintain Geneva levee	Flooding	City Administration / Geneva County EMA	Federal/Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	City Administration	Local	High	High
1	Utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	City Administration	Local	Medium	High
4	Install provisions for bypassing of lift stations through connection of sump pump directly into main, when needed	Flooding	Water and Sewer Board	HMGP/Local	Medium	High
4	Prepare new drainage system maintenance procedures and continue correction of deficient drainage facilities	Flooding	City Administration / Geneva Co Road and Bridge	Local	Medium	Moderate
2,6	Notify owners of ways to protect property from flooding	Flooding	NFIP Coordinator	Federal/Local	Medium	High
2,6	Notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High
5	Install outdoor warning siren	All	Geneva County EMA	HMGP/Local	Medium	Moderate
5	Purchase and maintain generators for emergency operations for critical facilities	All	City Administration	HMGP/Local	Medium	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate
4	Build dam around sewer lagoon area to contain waste	All	Water and Sewer Board	HMGP/ADEM/Local	High	Moderate

City of Hartford Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Implement additional land use regulations including hazard mitigation discussion	All	City Administration	Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	City Administration	Local	High	High
1	Utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	City Administration	Local	Medium	High
4	Prepare new drainage system maintenance procedures and correct deficient drainage facilities	Flooding	City Administration / Geneva Co Road and Bridge	Local	Medium	Moderate
2,6	Notify owners of ways to protect property from flooding	Flooding	NFIP Coordinator	Federal/Local	Medium	High
2,6	Notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High
5	Install outdoor warning siren	All	Geneva County EMA	HMGP/Local	Medium	Moderate
5	Purchase and maintain generators for emergency operations for critical facilities	All	City Administration	HMGP/Local	Medium	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate

Town of Malvern Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	Town Administration	Local	High	High
1	Utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	Town Administration	Local	Medium	High
5	Install safety equipment in Town Hall, Maintenance Building, and Park Facilities	All	Town Administration	HMGP/Local	Medium	Moderate
4	Prepare new drainage system maintenance procedures and correct deficient drainage facilities	Flooding	Town Administration / Geneva Co Road and Bridge	Local	Medium	Moderate
2,6	Notify owners of ways to protect property from flooding	Flooding	NFIP Coordinator	Federal/Local	Medium	High
2,6	Notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High
6	Educate public on being prepared for disaster situations and inform evacuation routes	All	Town Administration / Geneva County EMA	Local	Medium	High
5	Install outdoor warning siren	All	Geneva County EMA	HMGP/Local	Medium	Moderate
5	Purchase and maintain generators for emergency operations for critical facilities	All	Town Administration	HMGP/Local	Medium	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate

City of Samson Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Drainage improvements located near 200 S. Broad St	Flooding	City Administration	Local	Completed	N/A
5	Installed generator at Well #3	All	City Administration	Local	Completed	N/A
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	City Administration	Local	High	High
1	Utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	City Administration	Local	Medium	High
4	Install provisions for bypassing of lift stations through connection of sump pump directly into main, when needed	Flooding	Water and Sewer Dept	HMGP/Local	Medium	High
5	Construct new fire and rescue building	All	City Administration / Samson FD	USDA/Local	High	Moderate
5	Construct new police department	All	City Administration / Police Dept	USDA/Local	High	Moderate
5	Construct new city shop	All	City Administration	USDA/Local	High	Moderate
5	Construct new City Hall	All	City Administration	USDA/Local	High	Moderate
4	Prepare new drainage system maintenance procedures and correct deficient drainage facilities at multiple locations	Flooding	City Administration / Geneva Co Road and Bridge	Local	Medium	Moderate
2,6	Notify owners of ways to protect property from flooding	Flooding	NFIP Coordinator	Federal/Local	Medium	High
2,6	Notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High
5	Install outdoor warning sirens at Samson Municipal Complex, Samson Recreation Park, and along South Bay St	All	Geneva County EMA	HMGP/Local	Medium	Moderate

City of Samson Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Purchase and maintain generators for emergency operations for critical facilities	All	City Administration	HMGP/Local	Medium	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate
2	Acquisition of flood prone properties, including 402 S Canal St and 306 S Johnson St	Flooding	City Administration	HMGP/Private	High	Moderate

City of Slocomb Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Constructed new facility for consolidated fire and rescue department	All	Slocomb Fire and Rescue	Federal/Local	Completed	N/A
1,3	Continue participation in the NFIP and administering floodplain regulations	Flooding	NFIP Coordinator	HMGP/Local	High	High
1	Mosquito spraying program to minimize transmitted diseases	All	City Administration	Local	High	High
1	Utilize the Choctawhatchee, Pea, and Yellow rivers flood warning preparedness plan	Flooding	City Administration	Local	Medium	High
4	Construct drainage improvements along Pine Log Branch that stretches across the city	Flooding	City Administration	HMGP/Local	Medium	Moderate
4	Prepare new drainage system maintenance procedures and correct deficient drainage facilities	Flooding	City Administration / Geneva Co Road and Bridge	Local	Medium	Moderate
2,6	Notify owners of ways to protect property from flooding	Flooding	NFIP Coordinator	Federal/Local	Medium	High
2,6	Notify owners of availability and coverage provided by flood insurance	Flooding	NFIP Coordinator	Federal/Local	Medium	High
6	Increase public awareness of flood warning issuance	Flooding	NFIP Coordinator	Local	Medium	High
5	Install outdoor warning siren	All	Geneva County EMA	HMGP/Local	Medium	Moderate
5	Purchase and maintain generators for emergency operations for critical facilities	All	City Administration	HMGP/Local	Medium	Moderate
4	Install community and individual safe rooms in vulnerable locations	All (primarily High Winds)	Geneva County EMA	HMGP/Local/Private	High	Moderate

5.4.7 Henry County Jurisdictions Mitigation Actions

- 1. Henry County**
- 2. City of Abbeville**
- 3. Town of Haleburg**
- 4. City of Headland**
- 5. Town of Newville**

Henry County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
6	Continue to purchase additional warning sirens and weather radios to place throughout County	All	Henry County EMA	Federal/State/Local	High	Moderate
6	Continue public awareness throughout the County for hazard events	All	Henry County EMA	Federal/State/Local	High	High
1	Continue to implement and update Emergency Operations Plan	All	Henry County EMA	Federal/State/Local	High	High
5	Improvement of communication and warning devices for local emergency respondents	All	Henry County EMA / Local Police and Fire Depts	Federal/State/Local	High	Moderate
4	Continue implementation of ALDOT County Road Design Policy standards	All	Henry County Engineer	Local	High	High
4	Facilitate continuation of maintenance to the Walter F. George Lock and Dam	Dam Failure / Flooding	Henry County EMA / US Army Corps of Engineers	Federal	High	High
6	Continue training storm spotters within county	High Winds	Henry County EMA	Local	High	High
1,3	Work with Alabama Forestry Office for wildfire prevention measures	Wildfires	Henry County EMA	Local	High	High
1,3	Maintain NFIP compliance	Flooding	Henry County Engineer	Local	High	High
4	Placement of individual safe rooms in community	High Winds	Henry County EMA	Federal/Private	High	High
5	Purchase backup generators for EOC and other critical facilities	All	Henry County EMA	Federal/State/Local	High	Moderate
4	Repair drainage problems on County Road 55 between AL Highway 134 and County Road 12	All (primarily Flooding)	Henry County Road and Bridge	Federal/State/Local	High	Moderate
4	Repair ditch on County Road 4	All (primarily Flooding)	Henry County Road and Bridge	Federal/State/Local	High	Moderate
4	Repair gully on County Road 55	All (primarily Flooding)	Henry County Road and Bridge	Federal/State/Local	High	Moderate
4	Construct community safe room	High Winds	Henry County EMA	Federal/State/Local	Medium	Moderate

City of Abbeville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Drainage improvements on N. Doswell St to repair flooding damage	Flooding	City Administration	Federal/Local	Completed	N/A
4	Drainage improvements near Abbeville Middle School on Gilliam Street to repair flooding damage	Flooding	City Administration	Federal/Local	Completed	N/A
1	Completion of Comprehensive Master Plan	All	Planning Commission	Federal/Local	Completed	N/A
5	Continue responding to hazard emergencies	All	Abbeville Police / Fire Departments	Local	High	High
5	Improvement of communication and warning devices for local emergency respondents	All	Abbeville Police / Fire Departments / Henry County EMA	Federal/State/Local	High	Moderate
1,3	Work with County Engineer to monitor NFIP compliance	Flooding	City Administration	Local	High	High
4	Placement of individual safe rooms in community	High Winds	Henry County EMA / City Administration	Federal/Private	High	High
5	Purchase backup generators for critical facilities	All	City Administration / Henry County EMA	Federal/State/Local	High	Moderate
5	Acquire generators for Abbeville school sites	All	Henry County Schools / Henry County EMA	Federal/State/Local	High	Moderate
2	Retrofit current and future shelters and critical facilities for emergencies	All	City Administration / Henry County EMA	Federal/State/Local	Medium	Moderate

Town of Haleburg Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Continue responding to hazard emergencies	All	Haleburg VFD	Local	High	High
6	Provide for effective communication to residents through weather siren	All	Town Administration / Henry County EMA	Federal/State/Local	High	Moderate
1,3	Become a participating community within NFIP	Flooding	Town Administration	Local	High	High
4	Placement of individual safe rooms in community	High Winds	Henry County EMA / Town Administration	Federal/Private	High	High
5	Purchase backup generator for Town Hall	All	Town Administration / Henry County EMA	Federal/State/Local	High	Moderate
4	Construction of a community safe room	High Winds	Town Administration / Henry County EMA	Federal/State/Local	Medium	Moderate

City of Headland Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Completion of Comprehensive Master Plan and zoning revisions	All	Planning Commission	Local	Completed	N/A
1	Continue to administer and update Zoning Ordinance	All	Planning Commission	Local	High	High
1	Regularly update Comprehensive Plan in consistency with hazard mitigation objectives	All	Planning Commission	Federal/Local	High	High
5	Continue responding to hazard emergencies	All	Headland Police / Fire Departments	Local	High	High
5	Improvement of communication and warning devices for local emergency respondents	All	Headland Police / Fire Departments / Henry County EMA	Federal/State/Local	High	Moderate
1,3	Work with County Engineer to monitor NFIP compliance	Flooding	City Administration	Local	High	High
4	Placement of individual safe rooms in community	High Winds	Henry County EMA / City Administration	Federal/Private	High	High
4	Construction of community safe room	High Winds	City Administration	Federal/State/Local	High	Moderate
5	Purchase backup generators for critical facilities	All	City Administration / Henry County EMA	Federal/State/Local	High	Moderate
5	Acquire generators for Headland school sites	All	Henry County Schools / Henry County EMA	Federal/State/Local	High	Moderate

Town of Newville Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Construct new elevated water tank to replace existing tank	All	Town Administration	Federal/Local	Completed	N/A
5	Continue responding to hazard emergencies	All	Newville Police / Fire Departments	Local	High	High
5	Continue mutual aid / assistance agreements	All	Town Administration / Henry County EMA	Local	High	High
5	Improvement of communication and warning devices for local emergency respondents	All	Newville Police / Fire Departments / Henry County EMA	Federal/State/Local	High	Moderate
1,3	Work with County Engineer to monitor NFIP compliance	Flooding	Town Administration	Local	High	High
4	Placement of individual safe rooms in community	High Winds	Henry County EMA / Town Administration	Federal/Private	High	High
5	Maintain effective water supply to citizens during a disaster	All	Town Administration	Local	High	High
5	Purchase backup generators for critical facilities	All	Town Administration / Henry County EMA	Federal/State/Local	High	Moderate
2	Retrofit current and future shelters and critical facilities for emergencies	All	Town Administration / Henry County EMA	Federal/State/Local	Medium	Moderate
5	Construct a full-time refueling station	All	Town Administration	Local	Medium	Moderate
6	Provide for effective communication to residents through weather siren	All	Town Administration / Henry County EMA	Federal/State/Local	Medium	Moderate

5.4.8 Houston County Jurisdictions Mitigation Actions

- 1. Houston County**
- 2. City of Ashford**
- 3. Town of Avon**
- 4. Town of Columbia**
- 5. Town of Cottonwood**
- 6. Town of Cowarts**
- 7. City of Dothan**
- 8. Town of Gordon**
- 9. City of Kinsey**
- 10. Town of Madrid**
- 11. Town of Rehobeth**
- 12. City of Taylor**
- 13. Town of Webb**

Houston County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Regular street maintenance and replacement of bridges/culverts	All	Houston County Road and Bridge	Federal/Local	Completed	N/A
5	Water main extension to areas south of Ashford	All	Houston County Administration	Federal/Local	Completed	N/A
1	Continue enforcement of subdivision regulations that manage development in flood prone areas	Flooding	Houston County Road and Bridge	Local	High	High
4	Monitor during regular maintenance and implement most recent ALDOT design standards for county roads. These standards include many construction issues that impact the ability of roads and bridges to withstand flooding.	Flooding	Houston County Road and Bridge	Local	High	High
1	Continue checking properties for flood zone status and partnering with Alabama Power and Wiregrass Electric	Flooding	Houston County Road and Bridge	Local	High	High
4,5	Construct a combination joint Communication Center and Emergency Operation Center to serve Houston County. The center will house the City of Dothan Communications Center, Houston County Communications Center, Houston County Emergency Management, and host infrastructure for City of Dothan IT Department.	All	Dothan/Houston County Communications District Board / Dothan-Houston County EMA	Local	High (in Design Phase)	Moderate
4	Placement of individual safe rooms in county	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
4	Replacement of bridges and culverts as needed countywide	Flooding	Houston County Road and Bridge	Local	High	Moderate
5	Procure backup generator for the Houston County Water Authority to ensure water supply and distribution during emergencies	All	Dothan/Houston County EMA / Houston County Water Authority	Federal/State/Local	High	Moderate

Houston County Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Procure backup generator for Houston County Administration Building to assist with Continuity of Government / Continuity of Operations Plan	All	Dothan/Houston County EMA	Federal/State/Local	High	Moderate
1	Continue management of NFIP	Flooding	NFIP Coordinator	Local	High	High
5	Procure backup generator for Houston County Road and Bridge administrative offices for continuity of operations	All	Houston County Road and Bridge	Federal/State/Local	High	Moderate
5	Maintenance and replacement of existing outdoor warning sirens damaged during hazard events	All	Dothan/Houston County EMA	Federal/State/Local	High	Moderate
4	Cross-drain replacement on S County Road 81 south of Bazemore Mill Rd	Flooding	Houston County Road and Bridge	Local	High	Moderate
4	Drainage improvements behind Wicksburg High School	Flooding	Houston County Road and Bridge / Houston County Schools	Federal/State/Local	High	Moderate
5	Installation of approximately ten more outdoor warning sirens in areas within the county	All	Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate
1	Procure backup generator for Wicksburg School to keep food supplies in freezers from ruining during power outage	All	Houston County Schools	Federal/State/Local	Medium	Moderate
1	Work with State of Alabama on private dam legislation	Dam Failure	Dothan/Houston County EMA / County Engineer	State/Local	Medium	High
2	Retrofit SARCOA building for community safe room that can protect 270 people from hazard events	High Winds	Dothan/Houston County EMA / SARCOA	Federal/State/Local	Medium	Moderate

City of Ashford Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Construction of wastewater treatment plant	All	City Administration	Federal/Local	Completed	N/A
5	Additional communications and control capability	All	Houston County E-911 / Ashford Police Dept	Local	High	High
5	Construct an emergency operations center	All	City Administration	Federal/State/Local	High	Moderate
2	Retrofit Police Department to withstand hazard capabilities	All	Ashford Police Dept	Federal/State/Local	High	Moderate
4	Construct community safe room for nearby manufactured home parks	High Winds	City Administration	Federal/State/Local	High	Moderate
5	Procure backup generators for three water wells to supply power to ensure water supply and distribution during emergencies	All	Water Dept	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
1,3	Implementation of GIS system with accurate data to assist in proper management of the NFIP program, including structure, flood hazard, and imagery data	All (primarily Flooding)	City Administration	Federal/State/Local	Medium	Moderate
5	Procure backup generators for Ashford Elementary and Ashford High schools to operate freezers during power outages	All	Houston County Schools	Federal/State/Local	Medium	Moderate
5	System for detecting, warning, and responding to chlorine leaks in the water system	All	Water Dept	Local	Medium	Moderate

Town of Avon Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Continue management of NFIP	Flooding	Town Administration	Local	High	High
4	Maintain open ditches, working with Houston County Road and Bridge	Flooding	Town Administration / Houston Co Road and Bridge	Local	High	High
4	Drainage improvements at the intersection of US Highway 84 and Westbourne St, requiring an easement	Flooding	Town Administration / ALDOT / Houston Co Road and Bridge	Federal/State/Local	High	Moderate
4	Construct community safe room for nearby manufactured home parks with a backup generator	High Winds	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
2	Wind retrofit for Town Hall	High Winds	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate
5	Installation of outdoor warning siren	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate
3,4	Improvements to Cowarts Creek to reduce flooding occurrences from vegetation in waterway	Flooding	Town Administration	Federal/State/Local	Medium	Low

Town of Columbia Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Relocate sewage lagoon outfall line	All	Town Administration	Federal/Local	Ongoing (In Progress)	High
1	Continue management of NFIP	Flooding	Town Administration	Local	High	High
5	Interconnect water system with Henry County Water Authority for a secondary water supply, especially when the two wells and one tank are utilized to the limit	All	Town Administration / Henry Co Water Authority	Federal/State/Local	High	High
4	Construct community safe room for nearby residents in vulnerable housing	High Winds	Town Administration / Red Cross	Federal/State/Local	High	Moderate
5	Procure backup generators for two water wells to supply power to ensure water supply and distribution during emergencies	All	Town Administration	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
4	Construct drainage project affecting areas north of Church St (Hwy 52) between Houston County High School and N Main St (Hwy 95)	Flooding	Town Administration / Houston County Road and Bridge	Federal/State/Local	High	Moderate
5	Procure backup generator for Houston County High School to operate freezers during power outages	All	Houston County Schools	Federal/State/Local	Medium	Moderate
2	Acquisition of repetitively flooded properties	Flooding	Town Administration	Federal/State/Local	Medium	Moderate
5	Installation of two outdoor warning sirens to cover areas not covered by the existing siren	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate
2	Retrofit or relocate sewage lagoon to reduce impacts from flooding and sewage overflows in surrounding areas	Flooding	Town Administration	Federal/State/Local	Low	Moderate

Town of Cottonwood Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Sewer improvements in southern areas of town	All	Town Administration	Federal/Local	Completed	N/A
1,3	Continue review and maintenance of Floodplain Ordinance and NFIP regulations	Flooding	Town Administration	Local	High	High
4	Continued improvements to sewer system to ensure operations during emergencies	Flooding	Town Administration	Federal/State/Local	High	Moderate
5	Trailer-mounted emergency generator to operate the three water wells that supplies drinking water to 20% of geographic area of Houston County, water for firefighting to more than 33% of Houston County, and the nine sewer lift stations that convey wastes to the treatment facility	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
4	Provide erosion control to the 900 block of Houston Street that sustained major damage from previous flooding events. Emergency repair and upgrade are needed, including drainage pipe, roadwork, and curbing	Flooding	Town Administration / Houston Co Road and Bridge	Federal/State/Local	High	Moderate
4	Drainage projects along Cottonwood Canal, which caused extensive flood damage in previous flooding events, by cleaning and improving flow and upgrading damaged bridge and culvert crossings over the canal.	Flooding	Town Administration	Federal/State/Local	High	Moderate
4	Construct community safe room for first responders and vulnerable populations	High Winds / Flooding	Town Administration / Dothan/Houston Co EMA	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
4	Water system improvements to replace failing asbestos pipe in several locations, most in Downtown area	All	Town Administration	Federal/State/Local	High	Moderate

Town of Cottonwood Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Improve currently unused 50,000 gallon water tank to use as emergency water source for firefighting activities by placing connectors, an air gap water filling source line, and other ADEM requirements	Wildfires	Town Administration / Neighboring VFDs	Federal/State/Local	High	Moderate
5	Procure backup generator for Cottonwood School to operate freezers during power outages	All	Houston County Schools	Federal/State/Local	Medium	Moderate
2	Acquisition of repetitively flooded properties	Flooding	Town Administration	Federal/State/Local	Medium	Moderate
4	Construct wastewater treatment plant outside of flood zone	Flooding	Town Administration	Federal/State/Local	Low	Moderate
1,3	Implement GIS mapping system to manage NFIP program and utility services	All (primarily Flooding)	Town Administration	Federal/State/Local	Low	Moderate

Town of Cowarts Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Continue management of NFIP	Flooding	Town Administration	Local	High	High
5	Procure backup generators for two water wells to supply power to ensure water supply and distribution during emergencies	All	Town Administration	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
2	Retrofit critical facilities in flood prone areas to mitigate hazards	Flooding	Town Administration	Federal/State/Local	High	Moderate
2/4	Relocate two sewage lift stations out of flood prone areas or install berm and pumps to extract water from the brim	Flooding	Town Administration	Federal/State/Local	High	Moderate
2	Retrofit the remaining six lift stations to accommodate emergency power from at least a 50KW portable generator	All	Town Administration	Federal/State/Local	High	Moderate
2	Acquisition of repetitively flooded properties	Flooding	Town Administration	Federal/State/Local	Medium	Moderate
4	Construct community safe room meeting FEMA requirements for vulnerable populations	All (primarily High Winds)	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate

City of Dothan Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Install pipe and construct detention ponds to relieve local flooding from Beaver Creek Tributary 3 in Spann Farm	Flooding	Public Works	Local	Completed	N/A
2	Transmission line upgrade around Ross Clark Circle involving replacing rotten wood poles with concrete poles and replacing the wire with larger wire to increase the reliability of the lines and enable load switching.	All (primarily High Winds)	Dothan Utilities	Local	Completed	N/A
4	Rehabilitation of Wells 17, 29, 33, and 24, high service pumps 1 and 4, and low service pumps 1,2, and 3 to rebuild, repair, and lower wells to provide increased dependability	All	Dothan Utilities	Local	Completed	N/A
4	Construct new west side water storage tank to help maintain water pressure during peak demand	All	Dothan Utilities	State/Local	Completed	N/A
4	Decommission Beaver Creek WWTP	All	Dothan Utilities	State/Local	Completed	N/A
4	Upgrade Little Choctawhatchee WWTP	All	Dothan Utilities	State/Local	Completed	N/A
4	Sanitary sewer trunk line from Beaver Creek WWTP to Little Choctawhatchee WWTP	All	Dothan Utilities	State/Local	Completed	N/A
5	Multiple street and bridge repairs and replacements	All (primarily Flooding)	Public Works	Federal/Local	Completed	N/A
4	Multiple storm drainage improvements	Flooding	Public Works	Federal/Local	Completed	N/A
1	Continue management of NFIP regulations and incorporating Risk MAP into GIS system	Flooding	NFIP Coordinator	Local	High	High
1	Continue long range utility planning to meet current and future demands for water, ensure the correct path, review current revenues, and recommend future strategies	All	Dothan Utilities	Local	High	High

City of Dothan Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1	Continue strategic planning consistent with hazard mitigation objectives	All	City Administration	Local	High	High
1	Continued implementation of Five-Year Community Investment Program	All	City Administration	Federal/State/Local	High	Moderate
4	Continue extension of water mains in unserved areas	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Continue water tank maintenance program	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Install pipe and construct detention ponds to relieve local flooding from Beaver Creek Tributary 3 in Spann Farm	Flooding	Public Works Dept	Federal/State/Local	High	Moderate
2	Transmission line upgrade around Ross Clark Circle involving replacing rotten wood poles with concrete poles and replacing the wire with larger wire to increase the reliability of the lines and enable load switching. Repairs will repair wind and thunderstorm power outages.	High Winds	Dothan Utilities	Federal/State/Local	High	Moderate
5	Improve security at wells, tanks, and grounds by installing new fences, gates, doors, and sensors to help security	All	Dothan Utilities / Police Department	Local	High	High
4	Relocation of Park Avenue Electrical Substation	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Improve Flynn Substation by adding two more distribution circuits to improve reliability in NW Dothan	All	Dothan Utilities	Federal/State/Local	High	Moderate
5	Construction and/or relocation of fire station	All	Fire Dept	Federal/State/Local	High	Moderate
4	Continue annual neighborhood streets resurfacing	All	Public Works	Local	High	Moderate
4	Replace functionally and structurally inadequate bridges	Flooding	Public Works / MPO	Federal/State/Local	High	Moderate

City of Dothan Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Continue annual program to identify and improve drainage infrastructure creating flooding issues	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Monitor and repair deteriorating bridges	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Construct three 1500 GPM water supply wells and connecting mains	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Tuscaloosa test hole and test well for future water supply needs	All	Dothan Utilities	State/Local	High	Moderate
4	Transmission main improvements as determined from hydraulic modeling of water system	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Tank and well upgrade and replacement	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Red water main replacement	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Replace 15 fire hydrants annually	All	Dothan Utilities	Federal/State/Local	High	High
4	New generators to provide auxiliary power to wells	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Rehabilitation of sewer lift stations	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Omussee WWTP 201 Update and Bio Solids Management Plan	All	Dothan Utilities	State/Local	High	High
4	Rock Creek sewer line project	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Cornell WWTP project	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Whatley 20" water transmission line project	All	Dothan Utilities	Federal/State/Local	High	Moderate
4	Permanent flow monitoring	All	Dothan Utilities	SRF/Local	High	Moderate
4	Phase II AOC Program	All	Dothan Utilities	Local	High	Moderate
1	Implement stormwater management program	All	Public Works	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
4	Concrete pave the corroded bottom of the existing 96" diameter BCCMP under Horace Shepard Road	Flooding	Public Works	Federal/State/Local	High	Moderate

City of Dothan Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Ditch through Phillips Terrace subdivision to West Main Street	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Dead inlets at Roosevelt and Westfield Drive. Ditch from 203 Westfield Drive to southeast corner of 207 Roosevelt Drive	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve West Woodland Ditch North Leg from West Woodland Drive to intersection of Fortner Street and Hartford Highway	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Complete drainage system on Daniel Circle and tie to Ross Clark Cir system	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Ditch along west side of South Park Ave, south of West Carroll St to Ross Clark Cir	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Pipe system upgrade along Rosemont Dr	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Complete bottom paving of Folks Branch and lower bridge bottom	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Continuation of Girard ditch to N. Park Ave	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve drainage from Plaza Dr to Cherokee Dr	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve drainage from Cherokee Dr to Montezuma Ave	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve drainage from Houston St to Choctaw St to Sioux St	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve swale on Nottingham Way	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve drainage on Oakland Dr	Flooding	Public Works	Federal/State/Local	High	Moderate
1	Improve drainage on Connelly St	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve drainage near Todd Ct	Flooding	Public Works	Federal/State/Local	High	Moderate
2	Improve drainage at Shade Tree Trailer Court	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve drainage along Beaver Creek Tributary from Stadium St to Cynthia Dr	Flooding	Public Works	Federal/State/Local	High	Moderate
4	Improve drainage on Water St	Flooding	Public Works	Federal/State/Local	High	Moderate

City of Dothan Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Improve drainage on Junaluska Ave	Flooding	Public Works	Federal/State/Local	High	Moderate
5	Construct joint fire and police department training facility	All	Police Dept / Fire Dept	Federal/State/Local	High	Moderate
5	Cardiac Monitor Replacement	All	Fire Dept	Federal/Local	High	Moderate
1	Procure backup generators for critical facilities as needed	All	City Administration / Dothan Utilities	Federal/State/Local	Medium	Moderate
4	New elevated water tank	All	Dothan Utilities	Federal/State/Local	Medium	Moderate
2	Acquisition of repetitively flooded properties	Flooding	NFIP Coordinator	Federal/State/Local	Medium	Moderate
4	Property acquisition for future well and tank sites	All	Dothan Utilities	Federal/State/Local	Medium	Moderate
4	Develop long-term water supply source	All	Dothan Utilities	Federal/State/Local	Medium	Low
4	Improve US Hwy 231 / Campbellton Hwy / Taylor Rd	All	MPO / Public Works	Federal/State/Local	Medium	Moderate

Town of Gordon Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Procure portable 60kW generators to serve electrically-retrofitted water well and lift stations to supply power to ensure water and sewer services during emergencies	All	Town Administration	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
4	Improve drainage problem along Tifton Road by improving ditches and widening road	Flooding	Town Administration / Houston Co Road and Bridge	Federal/State/Local	High	Moderate
4	Improve drainage problem on Monroe Street, by replacing pipe under CSX Railway track with larger pipe to alleviate flooding of houses and property	Flooding	Town Administration / Houston Co Road and Bridge / CSX Railroad	Federal/State/Local	High	Moderate
4	Construct community safe room meeting FEMA requirements for vulnerable populations	All (primarily High Winds)	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
2	Retrofit Town Hall windows and doors with lockable metal shutters and add hurricane clips to the rafters	High Winds	Town Administration	Federal/State/Local	Medium	Moderate
4	Construction of new fire station to replace old station	All	Gordon VFD	Federal/State/Local	Medium	Moderate

City of Kinsey Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Construction of new well and elevated water storage tank with generator to have additional water for domestic needs and to furnish for firefighting	All	Town Administration	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
5	Procure generator in Town Hall for support during emergency events	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
5	Procure 50kW generator in Fire Station for functionality during hazard events	All	Kinsey VFD / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
5	System for detecting, warning, and responding to chlorine leaks in the water system	All	Town Administration	Local	High	Moderate
5	Installation of telemetry system to detect intrusion and power outages in water and sewer infrastructure	All	Town Administration	Federal/State/Local	High	Moderate
4	Repair drainage problems and street damage caused by flooding	Flooding	Town Administration / Houston Co Road and Bridge	Local	High	Moderate
4	Construct new Town Hall that meets FEMA community safe room requirements for first responders and vulnerable populations	All (primarily High Winds)	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate
5	Installation of additional outdoor warning siren	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate
1,3	Implement GIS mapping system to manage NFIP program and utility services	All	Town Administration	Federal/State/Local	Low	Moderate

Town of Madrid Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Continue implementation of NFIP in town	Flooding	Town Administration	Local	High	High
2	Retrofit senior center for sheltering purposes for the town's vulnerable population	All (primarily High Winds)	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
4	Implementation of drainage infrastructure to reduce drainage problems from open ditches, especially along Pine Street	Flooding	Town Administration / Houston Co Road and Bridge	Federal/State/Local	High	Moderate
4	Repair drainage problems and street damage caused by flooding	Flooding	Town Administration / Houston Co Road and Bridge	Local	High	Moderate
5	Assess feasibility of additional elevated water tank for additional water supply needs from growth occurring along US Hwy 231 South	All	Houston Co Water Authority	Federal/State/Local	Medium	Moderate
5	Assess development of public sewer system in preparation from growth occurring along US Hwy 231 South	All	Town Administration	Federal/State/Local	Medium	Low

Town of Rehobeth Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
4	Construction or retrofit existing building for community safe room with generator for first responders and vulnerable populations	All (primarily High Winds)	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
4	Repair drainage problems and street damage caused by flooding, especially along Leonard Drive	Flooding	Town Administration / Houston Co Road and Bridge	Local	High	Moderate
5	Backup generators for Rehobeth Elementary, Rehobeth Middle, and Rehobeth High schools to keep food supplies in freezers from ruining during power outage	All	Houston County Schools	Federal/State/Local	High	Moderate
1,3	Implement GIS mapping system to manage NFIP program and assist in emergency situations	All	Town Administration	Federal/State/Local	Medium	Moderate
5	Installation of additional outdoor warning siren to cover north side of Rehobeth	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate

City of Taylor Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
4	Drainage improvements to protect homes in Landview S/D from flooding damage after intense rainfall events	Flooding	City Administration / Houston Co Road and Bridge	Federal/Local	Ongoing (In Progress)	N/A
1,3	Manage NFIP regulations to restrict floodplain development	Flooding	City Administration	Local	High	High
5	Install radio telemetry and SCADA system on sewer lift stations to protect infrastructure from natural and manmade threats	All	City Administration	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
5	Procure 150 kW generator at Well #1 to ensure water supply to southeast portions of system	All	City Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
5	Procure 175kW generator to power lift stations for functionality during hazard events	All	City Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
4	Major drainage improvements from Parker Village S/D to Taylor Road area because of storm drainage overflow. The town sprays and clears the ditch but it is not a long-term solution.	Flooding	City Administration / Houston Co Road and Bridge	Federal/State/Local	High	Moderate
4	Retrofit Town Hall for police and water department emergency operations activities during a disaster event	All	City Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
1,3	Implement GIS mapping system to manage NFIP program and utility services	All	Town Administration	Federal/State/Local	Medium	Moderate
2	Elevate two lift stations (Windy Hill Rd and Hwy 52) due to repeated flooding occurrences	Flooding	City Administration	Federal/State/Local	Medium	Moderate
5	Installation of additional outdoor warning sirens to cover western and southern areas of Taylor	All	City Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate

City of Taylor Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
5	Construct a community safe room that meets FEMA requirements for first responders and vulnerable populations	All (primarily High Winds)	City Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate
5	Development of municipal Emergency Operations Plan that complies with local, state, and federal regulations	All	City Administration / Dothan/Houston County EMA	Local	Medium	High

Town of Webb Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status	Benefit / Cost Score
1,3	Manage NFIP regulations to restrict floodplain development	Flooding	Town Administration	Local	High	High
5	Backup generators for Webb Elementary School to keep food supplies in freezers from ruining during power outage	All	Houston County Schools	Federal/State/Local	High	Moderate
2	Retrofit Webb Senior Center by adding wind fortification, generator, and storage facility to enhance its shelter status	All (primarily High Winds)	Town Administration	Federal/State/Local	High	Moderate
4	Placement of individual safe rooms in community	High Winds	Dothan/Houston County EMA	Federal/Private	High	High
5	Procure generators for two water wells with no backup power source	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
5	Renovate the housing for Well #1, remove Tank #1, and install SCADA system on wells	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	High	Moderate
1,3	Implement GIS mapping system to manage NFIP program and utility services	All	Town Administration	Federal/State/Local	Medium	Moderate
2	Have interconnections with neighboring water systems for backup water sources	All	Town Administration	Federal/State/Local	Medium	Moderate
5	Installation of additional outdoor warning sirens to cover areas south of Hwy 52	All	Town Administration / Dothan/Houston County EMA	Federal/State/Local	Medium	Moderate

Section 6 - Plan Maintenance Process

This section of the plan addressed requirements of Interim Final Rule (IFR) Section 201.6(c)(4).

Section Contents

- 6.1 Hazard Mitigation Plan Monitoring, Evaluation, and Update Process
- 6.2 Hazard Mitigation Plan Incorporation
- 6.3 Public Awareness/Participation

6.1 Hazard Mitigation Plan Monitoring, Evaluation, and Update Process

The Southeast Alabama Regional Planning and Development Commission (SEARP&DC) will facilitate plan maintenance activities with assistance from the AEMA Region B Regional Coordinator, local EMA directors, and the South Central Alabama Development Commission (SCADC) through the five-year framework of the Hazard Mitigation Plan. Local EMA directors will serve as a liaison to participating jurisdictions within their respective counties through their local processes, such as Local Emergency Planning Committee (LEPC) or Stakeholder groups. The public will also be encouraged to participate throughout the complete planning process.

Periodic review and revisions of the Hazard Mitigation Plan is important to ensure the plan's currency and compliance with applicable regulations and to assess the progress of local mitigation actions. On at least an annual basis, a meeting between SEARP&DC, local EMA officials, AEMA Region B Division Coordinator, neighboring communities, school boards/representatives, regulating agencies, stakeholders and the general public will be held to review and revise the plan, where needed. This meeting shall coincide with other AEMA Region B quarterly meetings, as allowed. The plan review process will also include the provision of a post-disaster review that merits a reevaluation of hazard priorities and mitigation actions in order to reflect fluctuating conditions within the region. The three counties not fully inserted into this plan will also be inserted in future plan updates.

The scope of the plan review meeting will be to review and evaluate completed mitigation actions for effectiveness, review status of high priority or ongoing mitigation actions, discuss possible changes to hazard vulnerability or other elements of the risk assessment, assess any major land use changes, and discuss any other relevant issue pertaining to the Hazard Mitigation Plan. Before this meeting, local EMA directors shall collect pertinent information from local jurisdictions in their county and other local stakeholders, such as public safety personnel and the general public, for plan review and evaluation purposes. The general public will be invited to attend this meeting and encouraged to provide their input into this review through public notices and public outreach.

Before the five-year expiration of the Hazard Mitigation Plan, a thorough review, beginning 18 months prior to plan expiration, shall be held to determine any significant changes in the AEMA Region B planning area that may affect the region's vulnerability to hazard impacts, and an evaluation of the mitigation strategy and jurisdictional action plans developed as part of this process. This plan update shall incorporate any changes to federal or state regulations that may affect the Hazard Mitigation Plan contents. Upon completion of this review and update, the updated Hazard Mitigation Plan will be submitted to the AEMA and FEMA for review and approval.

6.2 Hazard Mitigation Plan Incorporation

Once the Regional Hazard Mitigation Plan is "approvable upon adoption" by FEMA, each jurisdiction shall proceed with adoption procedures. Each proposed action listed in the jurisdictional mitigation action plans are assigned to one or multiple lead agencies or departments in order to assign responsibility and accountability of action implementation to specific sources. In addition to the assigned local agency or department, each mitigation action plan also has a priority or status assigned that roughly coincides with an implementation

timeline. The local jurisdictions in AEMA Region B will work to seek to provide operational funding to actions that are ongoing and seek outside funding for capital projects that are outside the realm of normal funding during both pre-disaster and post-disaster periods.

The participating jurisdictions will integrate this Hazard Mitigation Plan into appropriate and relevant municipal and county government decision-making processes, where feasible. This includes integrating the findings of the Hazard Mitigation Plan into documents, such as comprehensive or master plans, future land use plans, capital improvement plans, or similar mechanisms. The participating jurisdictions will also work to ensure the goals and actions of local planning documents are consistent with the goals and mitigation actions of the Hazard Mitigation Plan, and will not introduce additional hazard vulnerabilities to the local area and region at-large. Local EMA directors will incorporate applicable information from this Hazard Mitigation Plan into other required emergency management plans, including each county's Emergency Operations Plan and county THIRAs.

The Hazard Mitigation Plan will also be provided to the Southeast Alabama Regional Planning and Development Commission (SEARP&DC) and the South Central Alabama Development Commission (SCADC) for consistency with other regional planning and economic development activities, as well as local economic development councils.

6.3 Public Awareness/Participation

Public participation in the hazard mitigation planning process, including development and adoption, is a very important component. Efforts will continue to involve local and state government agencies, businesses, academia, and the general public in the ongoing mitigation planning process to the maximum extent possible.

As described in the Monitoring, Evaluation, and Update process, any significant changes or amendments to the Hazard Mitigation Plan shall require a public hearing prior to any adoption procedures. The public will be informed of public hearings and other Hazard Mitigation related meetings through a variety of media sources, including but not limited to: local newspaper advertisements and notices, radio advertising, postings at high traffic community areas, social media, telephone messages, and various websites such as local EMA offices, SEARP&DC, and Open Meetings websites. SEARP&DC and local EMA offices will keep public copies and provide copies of the Hazard Mitigation Plan to each County Commission office, seats of government in each municipality, and other appropriate public locations. SEARP&DC will post a copy of the Hazard Mitigation Plan on the Data Center portion of its website. Press releases will be published via various media to inform the general public and stakeholders that the Hazard Mitigation Plan is available for review, where to find the Hazard Mitigation Plan, and how they can play a role in its creation and future revisions.

APPENDIX A:

LOCAL MITIGATION PLAN REVIEW TOOL

The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Checklist provides a summary of FEMA’s evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan’s strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

Jurisdiction: Barbour, Butler, Coffee, Covington, Geneva, Henry, and Houston counties, and eligible local jurisdictions	Title of Plan: Southeast Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan	Date of Plan:
Local Point of Contact: Scott Farmer	Address: P.O. Box 1406 Dothan, AL 36302	
Title: Community Development Director		
Agency: Southeast Alabama Regional Planning & Development Commission		
Phone Number: (334) 794-4093	E-Mail: sfarmer@searpc.org	

State Reviewer:	Title:	Date:

FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region (insert #)		
Plan Not Approved		
Plan Approvable Pending Adoption		
Plan Approved		

**SECTION 1:
REGULATION CHECKLIST**

INSTRUCTIONS: The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the Plan by Element/sub-element and to determine if each requirement has been ‘Met’ or ‘Not Met.’ The ‘Required Revisions’ summary at the bottom of each Element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is ‘Not Met.’ Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in this *Plan Review Guide* in Section 4, Regulation Checklist.

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT A. PLANNING PROCESS				
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	Section 3.3 (pp. 16-18); Appendix B			
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	Section 3.4 (pp.19-20)			
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	Section 3.4 (pp.19-20)			
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	Section 3.5 (p.20)			
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	Section 6.1 (p.213); Section 6.3 (p.214)			
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	Section 6.1 (p.213)			
ELEMENT A: REQUIRED REVISIONS				

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT				
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	Section 4.2 (pp.27-77)			
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	Section 4.2 (pp.27-77); Section 4.5 (pp.82-83)			
B3. Is there a description of each identified hazard’s impact on the community as well as an overall summary of the community’s vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	Section 4.8 (pp.87-98)			
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	Repetitive Loss Properties – Sec. 4.8. (pp.91-92)			
<u>ELEMENT B: REQUIRED REVISIONS</u>				
ELEMENT C. MITIGATION STRATEGY				
C1. Does the plan document each jurisdiction’s existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	Section 3.6 (pp.20-23)			
C2. Does the Plan address each jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	Section 3.6 (pp.23-25)			
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	Sections 5.1 – 5.3 (pp.100-102)			
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	Section 5.4 (pp.103-211)			
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	Section 5.4 (pp.103-211)			
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	Section 6.2 (pp.213-214)			
<u>ELEMENT C: REQUIRED REVISIONS</u>				

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	Section 2.5 (p.14)			
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	Section 3.3 (pp.16-17); Section 5.1 (p.100); Section 5.4 (pp.103-211)			
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	Section 3.3 (pp.16-17); Section 5.1 (p.99); Section 5.4 (pp. 103-211)			
<u>ELEMENT D: REQUIRED REVISIONS</u>				
ELEMENT E. PLAN ADOPTION				
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Not Met, until Approvable upon Adoption			
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	Not Met, until Approvable upon Adoption			
<u>ELEMENT E: REQUIRED REVISIONS</u>				
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (OPTIONAL FOR STATE REVIEWERS ONLY; NOT TO BE COMPLETED BY FEMA)				
F1.				
F2.				
<u>ELEMENT F: REQUIRED REVISIONS</u>				

**SECTION 2:
PLAN ASSESSMENT**

INSTRUCTIONS: The purpose of the Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The audience for the Plan Assessment is not only the plan developer/local community planner, but also elected officials, local departments and agencies, and others involved in implementing the Local Mitigation Plan. The Plan Assessment must be completed by FEMA. The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the Plan; 2) specific sections in the Plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically RiskMAP and Hazard Mitigation Assistance programs. The Plan Assessment is divided into two sections:

1. Plan Strengths and Opportunities for Improvement
2. Resources for Implementing Your Approved Plan

Plan Strengths and Opportunities for Improvement is organized according to the plan Elements listed in the Regulation Checklist. Each Element includes a series of italicized bulleted items that are suggested topics for consideration while evaluating plans, but it is not intended to be a comprehensive list. FEMA Mitigation Planners are not required to answer each bullet item, and should use them as a guide to paraphrase their own written assessment (2-3 sentences) of each Element.

The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in nature, and should be open-ended and to provide the community with suggestions for improvements or recommended revisions. The recommended revisions are suggestions for improvement and are not required to be made for the Plan to meet Federal regulatory requirements. The italicized text should be deleted once FEMA has added comments regarding strengths of the plan and potential improvements for future plan revisions. It is recommended that the Plan Assessment be a short synopsis of the overall strengths and weaknesses of the Plan (no longer than two pages), rather than a complete recap section by section.

Resources for Implementing Your Approved Plan provides a place for FEMA to offer information, data sources and general suggestions on the overall plan implementation and maintenance process. Information on other possible sources of assistance including, but not limited to, existing publications, grant funding or training opportunities, can be provided. States may add state and local resources, if available.

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

Element A: Planning Process

How does the Plan go above and beyond minimum requirements to document the planning process with respect to:

- 1. Involvement of stakeholders (elected officials/decision makers, plan implementers, business owners, academic institutions, utility companies, water/sanitation districts, etc.);*
- 2. Involvement of Planning, Emergency Management, Public Works Departments or other planning agencies (i.e., regional planning councils);*
- 3. Diverse methods of participation (meetings, surveys, online, etc.); and*
- 4. Reflective of an open and inclusive public involvement process.*

Element B: Hazard Identification and Risk Assessment

In addition to the requirements listed in the Regulation Checklist, 44 CFR 201.6 Local Mitigation Plans identifies additional elements that should be included as part of a plan's risk assessment. The plan should describe vulnerability in terms of:

- 1. A general description of land uses and future development trends within the community so that mitigation options can be considered in future land use decisions;*
- 2. The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas; and*
- 3. A description of potential dollar losses to vulnerable structures, and a description of the methodology used to prepare the estimate.*

How does the Plan go above and beyond minimum requirements to document the Hazard Identification and Risk Assessment with respect to:

- 1. Use of best available data (flood maps, HAZUS, flood studies) to describe significant hazards;*
- 2. Communication of risk on people, property, and infrastructure to the public (through tables, charts, maps, photos, etc.);*
- 3. Incorporation of techniques and methodologies to estimate dollar losses to vulnerable structures;*
- 4. Incorporation of Risk MAP products (i.e., depth grids, Flood Risk Report, Changes Since Last FIRM, Areas of Mitigation Interest, etc.); and*
- 5. Identification of any data gaps that can be filled as new data became available.*

Element C: Mitigation Strategy

How does the Plan go above and beyond minimum requirements to document the Mitigation Strategy with respect to:

1. Key problems identified in, and linkages to, the vulnerability assessment;
2. Serving as a blueprint for reducing potential losses identified in the Hazard Identification and Risk Assessment;
3. Plan content flow from the risk assessment (problem identification) to goal setting to mitigation action development;
4. An understanding of mitigation principles (diversity of actions that include structural projects, preventative measures, outreach activities, property protection measures, post-disaster actions, etc);
5. Specific mitigation actions for each participating jurisdictions that reflects their unique risks and capabilities;
6. Integration of mitigation actions with existing local authorities, policies, programs, and resources; and
7. Discussion of existing programs (including the NFIP), plans, and policies that could be used to implement mitigation, as well as document past projects.

Element D: Plan Update, Evaluation, and Implementation (Plan Updates Only)

How does the Plan go above and beyond minimum requirements to document the 5-year Evaluation and Implementation measures with respect to:

1. Status of previously recommended mitigation actions;
2. Identification of barriers or obstacles to successful implementation or completion of mitigation actions, along with possible solutions for overcoming risk;
3. Documentation of annual reviews and committee involvement;
4. Identification of a lead person to take ownership of, and champion the Plan;
5. Reducing risks from natural hazards and serving as a guide for decisions makers as they commit resources to reducing the effects of natural hazards;
6. An approach to evaluating future conditions (i.e. socio-economic, environmental, demographic, change in built environment etc.);
7. Discussion of how changing conditions and opportunities could impact community resilience in the long term; and
8. Discussion of how the mitigation goals and actions support the long-term community vision for increased resilience.

B. Resources for Implementing Your Approved Plan

Ideas may be offered on moving the mitigation plan forward and continuing the relationship with key mitigation stakeholders such as the following:

1. *What FEMA assistance (funding) programs are available (for example, Hazard Mitigation Assistance (HMA)) to the jurisdiction(s) to assist with implementing the mitigation actions?*
2. *What other Federal programs (National Flood Insurance Program (NFIP), Community Rating System (CRS), Risk MAP, etc.) may provide assistance for mitigation activities?*
3. *What publications, technical guidance or other resources are available to the jurisdiction(s) relevant to the identified mitigation actions?*
4. *Are there upcoming trainings/workshops (Benefit-Cost Analysis (BCA), HMA, etc.) to assist the jurisdictions(s)?*
5. *What mitigation actions can be funded by other Federal agencies (for example, U.S. Forest Service, National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA) Smart Growth, Housing and Urban Development (HUD) Sustainable Communities, etc.) and/or state and local agencies?*

Appendix B: Documentation of Participation and Public Involvement

Public Notices, Meeting Agendas, Meeting Minutes, & Meeting Rosters

1. All Counties
2. Barbour County
3. Butler County
4. Coffee County
5. Covington County
6. Geneva County
7. Henry County
8. Houston County