

City of Riverside

RESOLUTION 2021-301

ST. CLAIR COUNTY HAZARD MITIGATION PLAN UPDATE

WHEREAS, the St. Clair County Hazard Mitigation Plan has been updated in accordance with FEMA requirements at 44 C.F.R. 201.6; and,

WHEREAS, the City of Riverside participated in the updating of a multi-jurisdictional plan, the St. Clair County Hazard Mitigation Plan; and,

WHEREAS, the City of Riverside is a local unit of government that has afforded the citizens an opportunity to comment and provide input in the plan and the actions in the plan; and,

WHEREAS, the City of Riverside has reviewed the plan and affirms that the plan will be updated no less than every five years.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF RIVERSIDE, ALABAMA, THAT:

The City of Riverside adopts the 2021 St. Clair County Hazard Mitigation Plan update and resolves to execute the actions in the plan.

This resolution shall go into effect upon the passage and publication as required by law.

APPROVED THIS 1st DAY OF March, 2021.

CERTIFICATION:

I, Candace Smith, as City Clerk of the City of Riverside, Alabama, hereby certify that the above Ordinance is a true and correct copy of such Ordinance that was duly adopted by the City Council of the City of Riverside on the 1st day of March, 2021, as same appears in the official records of said City.

Posted at Riverside City Hall, Riverside Post Office, and Riverside Landing this the 2nd day of March, 2021, in accordance with law.

Candace Smith
City Clerk

Division G Regional Multi- Jurisdictional Hazard Mitigation Plan

A HAZARD MITIGATION PLAN FOR AEMA DIVISION G COUNTIES:
CALHOUN, CLAY, CLEBURNE, JEFFERSON, RANDOLPH, ST. CLAIR,
TALLADEGA, AND ELIGIBLE LOCAL JURISDICTIONS

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Section 1 - Hazard Mitigation Plan Introduction

Section Contents

- 1.1 Plan Scope
- 1.2 Authority
- 1.3 Funding
- 1.4 Purpose

1.1 Plan Scope

The East Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan is a plan that details the multitude of hazards that affect the Alabama Emergency Management Agency (AEMA) Division G area. This region includes Calhoun, Clay, Cleburne, Jefferson, Randolph, Shelby, St. Clair, and Talladega counties and the municipalities, as well as other jurisdictions, within these counties. However, Shelby County is not participating in this plan. The first version of this plan covers Randolph and St. Clair counties. Calhoun, Clay, Cleburne, Jefferson, and Talladega 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 seven counties in AEMA Division G 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 Division G 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 can 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 East Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan was made available through the Hazard Mitigation Grant Program (HMGP). Supplemental funding was supplied by the county commissions of Calhoun, Clay, Cleburne, Jefferson, Randolph, St. Clair, and Talladega counties.

1.4 Purpose

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

Section 2 - Regional Profile

Section Contents

- 2.1 Background
- 2.2 Demographics
- 2.3 Business and Industry
- 2.4 Infrastructure
- 2.5 Land Use and Development Trends

2.1 Background

The planning area is Alabama Emergency Management Agency (AEMA) Division G, one of the seven emergency management divisions within the state. AEMA Division G is in eastern Alabama (Figure 2.1). The portion of AEMA Division G covered in the final version of this plan is comprised of the following seven counties: Calhoun, Clay, Cleburne, Jefferson, Randolph, St. Clair, Talladega, and 81 municipalities within those counties. The plan will be implemented utilizing a phased approach, with the first version covering Randolph and St. Clair Counties.

Phase I:

- Randolph County:
- St. Clair County

Phase II:

- Calhoun County
- Jefferson County

Phase III:

1. Cleburne County

Phase IV:

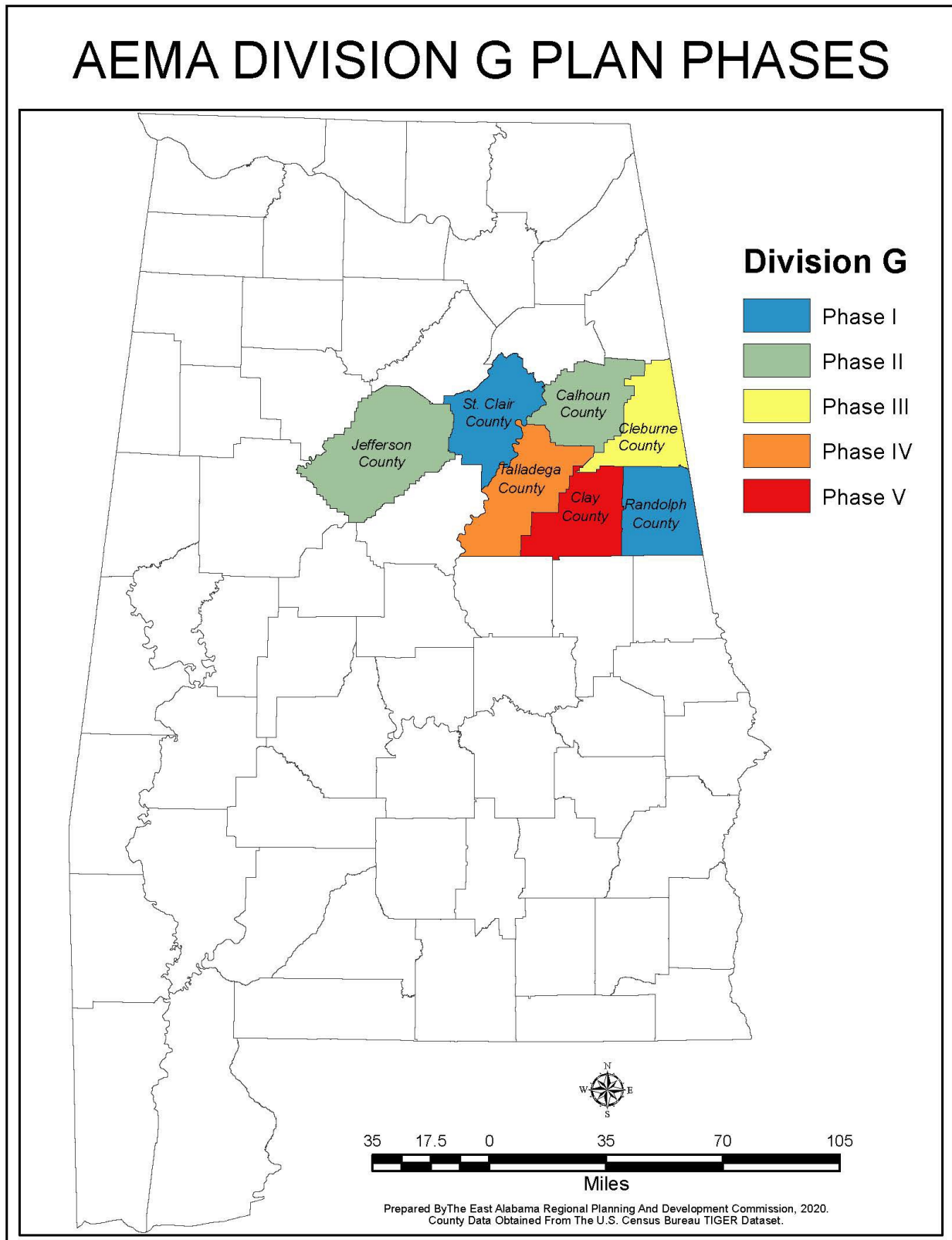
- Talladega County

Phase V:

- Clay County

The additional county (Shelby) is currently covered by its own hazard mitigation plan and is not participating. Please refer to Figure 2.1 to see AEMA G's location in Alabama and the implementation phases.

Figure 2.1



Source: EARPDC; Census Bureau

Jefferson County is the largest county by area with 1,124 square miles. The smallest county is Cleburne County with 561 square miles. The total land area of the region is 5,711 square miles, which is slightly less than 11% of the state’s area and is presented by county below (Table 2.1).

County	Total Area
Calhoun County	612 square miles
Clay County	606 square miles
Cleburne County	561 square miles
Jefferson County	1,124 square miles
Randolph County	584 square miles
Shelby County	810 square miles
St. Clair County	654 square miles
Talladega County	760 square miles

Source: U.S. Census Bureau

The entire AEMA Division G area is within the Appalachian Highlands Region, which includes the Piedmont Upland, Alabama Valley and Ridge, and Cumberland Plateau physiographic regions. Overall, this diverse region consists of plateaus, irregular plains, sandstone ridges and limestone valleys, and several mountainous ridges. Though the designation of a plain commonly refers to a flat landscape, much of the region consists of a mixture of rounded hills and zigzagging ridges, with floodplains along the rivers and streams of the area. Encompassed in this region is Cheaha Mountain, the highest point in Alabama at 2,407 feet.

There are four main river systems that flow through the region: Black Warrior, Cahaba, Coosa, and Tallapoosa rivers. The Black Warrior River flows mainly south-southwest from three forks beginning in North Alabama and converging on and bordering the Jefferson County-Walker County line. The river constitutes the largest drainage area in Alabama, covering 6,276 miles and has a relatively narrow floodplain. The Cahaba River flows generally south-southwest from Cahaba Mountain through portions of Jefferson and St. Clair County and into the Alabama River. The Cahaba River is Alabama’s longest stretch of free-flowing river. Flowing mainly southwest, the Coosa River originates in Georgia and at its end converges with the Alabama River. The Coosa River also includes reservoirs, one of which is Logan Martin Lake, situated among Calhoun, St. Clair, and Talladega county. The river is dammed in certain locations, including Neely Henry Dam in Calhoun/St. Clair county and Logan Martin Dam in St. Clair/Talladega County; these provide hydroelectric generation, recreation opportunities, flood control, and water supplies. Also originating in Georgia, the Tallapoosa River flows southwest, then goes on to join the Coosa River to form the Alabama River. There are several lakes on the river, with Lake Wedowee in Randolph County being within the region. The Tallapoosa River also has multiple dams and dikes, with four of them being within Randolph County.

2.2 Demographics

According to the 2010 Census, the total population of AEMA Division G was 994,739 people, representing approximately eight percent (20%) of Alabama (Table 2.1). Jefferson County, in the northwestern corner of the region, is the most populous county (658,466), while Clay County in the southeastern portion of the region is the least populous county (13,932). 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
Calhoun County	112,249	118,572	5.63%
City of Anniston	24,276	23,106	-4.82%
City of Glencoe (part)	9	38	322.22%
Town of Hobson City	878	771	-12.19%
City of Jacksonville	8,404	12,548	49.31%
Town of Ohatchee	1,215	1,170	-3.70%
City of Oxford (part)	12,357	17,197	39.17%
City of Piedmont (part)	5,120	4,878	-4.73%
City of Southside (part)	130	155	19.23%
City of Weaver	2,619	3,038	16.00%
Clay County	14,254	13,932	-2.26%
Town of Ashland	1,965	2,037	3.66%
City of Lineville	2,401	2,395	-0.25%
Cleburne County	14,123	14,972	6.01%
Town of Edwardsville	186	202	8.60%
Town of Fruithurst	270	284	5.19%
City of Heflin	3,002	3,480	15.92%
Town of Ranburne	459	409	-10.89%
Jefferson County	662,047	658,466	-0.54%
City of Adamsville	4,965	4,522	-8.92%
City of Argo (part)	93	61	-34.41%
City of Bessemer	29,672	27,456	-7.47%
City of Birmingham (part)	242,307	210,609	-13.08%
City of Brighton	3,640	2,945	-19.09%
Town of Brookside	1,393	1,363	-2.15%
Town of Cardiff	82	55	-32.93%
City of Centerpoint	-	16,921	-
City of Clay	-	9,708	-
Town of County Line (part)	124	61	-50.81%
City of Fairfield	12,381	11,117	-10.21%
City of Fultondale	6,595	8,380	27.07%

City of Gardendale	11,626	13,893	19.50%
City of Graysville	2,344	2,165	-7.64%
City of Helena (part)	3	2,225	74066.67%
City of Homewood	25,043	25,167	0.50%
City of Hoover (part)	46,868	58,582	24.99%
City of Hueytown	15,364	16,105	4.82%
City of Irondale	9,813	12,349	25.84%
Town of Kimberly	1,801	2,711	50.53%
City of Leeds (part)	9,028	9,809	8.65%
City of Lipscomb	2,458	2,210	-10.09%
Town of Maytown	435	385	-11.49%
City of Midfield	5,626	5,365	-4.64%
Town of Morris	1,827	1,859	1.75%
City of Mountain Brook	20,604	20,413	-0.93%
Town of Mulga	973	836	-14.08%
Town of North Johns	142	145	2.11%
City of Pinson	-	7,163	-
City of Pleasant Grove	9,983	10,110	1.27%
City of Sumiton (part)	2	16	700.00%
Town of Sylvan Springs	1,465	1,542	5.26%
City of Tarrant	7,022	6,397	-8.90%
Town of Trafford (part)	523	646	23.52%
City of Trussville (part)	12,875	19,450	51.07%
City of Vestavia Hills (part)	24,455	34,019	39.11%
City of Warrior	3,169	3,176	0.22%
Town of West Jefferson	344	338	-1.74%
Randolph County	22,380	22,913	2.38%
City of Roanoke	6,563	6,074	-7.45%
Town of Wadley	640	751	17.34%
Town of Wedowee	818	823	0.61%
Town of Woodland	192	184	-4.17%
St. Clair County	64,742	83,593	29.12%
City of Argo (part)	1,687	4,010	137.70%
City of Ashville	2,260	2,212	-2.12%
City of Margaret	1,169	4,428	278.79%
City of Moody	8,053	11,726	45.61%
City of Odenville	1,131	3,585	216.98%
City of Pell City	9,565	12,695	32.72%
Town of Ragland	1,918	1,639	-14.55%
Town of Riverside	1,564	2,208	41.18%
City of Springville	2,521	4,080	61.84%
Town of Steele	1,093	1,043	-4.57%

Talladega County	80,321	82,291	2.45%
Town of Bon Air	96	116	20.83%
City of Childersburg	4,927	5,175	5.03%
City of Lincoln	4,577	6,266	36.90%
Town of Munford	-	1,292	-
Town of Oak Grove	457	528	15.54%
City of Oxford (part)	2,235	4,151	85.73%
City of Sylacauga	12,616	12,749	1.05%
Town of Talladega Springs	124	166	33.87%
City of Talladega	15,153	15,676	3.45%
Town of Vincent (part)	0	0	-
Town of Waldo	281	283	0.71%

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

Based on ACS 2014-2018 Five Year Estimates, the median age for residents within the counties of AEMA Division G ranges from 37 to 43 years. Jefferson County's median age of 37 years is lower than the rest of the region, likely due to the impact of the University of Alabama at Birmingham. Age Distribution by county is presented below (Table 2.3).

Table 2.3: Age Distribution							
Age Group	Calhoun County	Clay County	Cleburne County	Jefferson County	Randolph County	St. Clair County	Talladega County
Less than 5 years	6,562	670	821	42,537	1,290	5,241	4,301
5-19	21,775	2,541	2,912	125,496	4,274	16,481	14,880
20-24	7,626	882	760	43,127	1,272	4,886	5,262
25-44	28,862	2,848	3,530	178,732	5,042	22,679	19,907
45-64	30,887	3,785	4,112	170,854	6,184	24,128	22,458
65+	19,386	2,652	2,803	99,146	4,512	13,891	13,757
Total	115,098	13,378	14,938	659,892	22,574	87,306	80,565
Median Age	39.7	43.7	42.5	37.7	42.7	40.3	41.1

Source: U.S. Census Bureau (2014-2018)

Racial and ethnic characteristics from 2010 and languages spoken by county are presented below (Tables 2.4 and 2.5). In each county, the majority of residents are shown to be white, and the predominant language is English. It is essential for communities to have awareness of racial demographics and languages in order to respect diverse cultural needs, provide opportunities for growth, and promote diversity.

Table 2.4: Racial and Ethnic Demographics by County				
County	% White	% Black	% Other	% Hispanic
Calhoun County	74.9%	20.6%	3.4%	3.3%
Clay County	81.7%	14.8%	2.1%	2.9%
Cleburne County	94.0%	3.3%	1.9%	2.1%
Jefferson County	53.0%	42.0%	4.1%	3.5%
Randolph County	76.5%	20.1%	2.6%	2.8%
St. Clair County	88.2%	8.6%	1.5%	2.1%
Talladega County	65.3%	31.7%	2.0%	2.0%

Source: U.S. Census Bureau (2010)

*Hispanic population may be of any race

Table 2.5: Languages Spoken at Home							
Languages	Calhoun County	Clay County	Cleburne County	Jefferson County	Randolph County	St. Clair County	Talladega County
Only English	103,998	12,393	13,671	581,134	20,904	79,894	74,099
Spanish	3,337	281	405	20,954	216	1,284	1,348
Other Indo-European Languages	572	34	36	6,415	164	411	466
Asian and Pacific Island Languages	553	0	0	6,016	0	375	173
Other Languages	76	0	5	2,836	0	101	178
Total Pop. 5 Years +	108,536	12,708	14,117	617,355	21,284	82,065	76,264

Source: U.S. Census Bureau (2014-2018)

Gender demographics show that in the substantial majority of the planning area, females outnumber males; this distribution is in line with gender trends across the U.S. However, St. Clair County has a slightly higher male population (51%) than female population (49%). Gender distribution by county is displayed below (Table 2.6).

Gender	Calhoun County	Clay County	Cleburne County	Jefferson County	Randolph County	St. Clair County	Talladega County
Male	55,315	6,464	7,281	312,348	10,989	43,755	39,156
% of Total	48%	48%	49%	47%	49%	51%	49%
Female	59,783	6,914	7,657	347,544	11,585	43,551	41,409
% of Total	52%	52%	51%	53%	51%	49%	51%
Total	115,098	13,378	14,938	659,892	22,574	87,306	80,565

Source: U.S. Census Bureau (2014-2018)

Government awareness of populations with a disability is essential to ensure those populations are properly served. Access needs, equipment and aids, hazard preparation, and inclusivity are a few examples of areas in which government can support those with hearing, vision, cognitive, ambulatory, self-care, or independent living difficulties. Disability characteristics are displayed below by county (Table 2.7).

Disability Type	Calhoun County	Clay County	Cleburne County	Jefferson County	Randolph County	St. Clair County	Talladega County
Hearing difficulty	678	6,427	1,045	23,326	873	4,190	3,527
Vision Difficulty	396	4,442	623	20,211	650	3,067	2,759
Cognitive Difficulty	689	9,219	1,180	37,834	944	5,262	5,061
Ambulatory Difficulty	1,405	14,003	1,974	58,141	2,034	8,272	9,010
Self-Care Difficulty	357	4,690	537	21,473	641	2,259	2,440
Independent Living Difficulty	559	8,229	1,118	35,672	1,078	4,947	4,948
Total with a disability	2,008	23,598	3,331	101,363	3,193	14,055	14,937
% with a disability	15.3%	20.8%	22.6%	15.5%	14.3%	16.5%	19.3%
Total Civilian Noninstitutionalized Population	13,128	113,561	14,760	652,744	22,324	85,382	77,590

Source: U.S. Census Bureau (2014-2018)

According to the U.S. Census Bureau’s 2014-2018 Five-Year Estimates, there are 547,092 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 2.8 below.

Table 2.8: Housing Demographics by County			
County	Housing Units	Mobile Homes (%)	Built Prior to 1980 (%)
Calhoun County	53,682	14.7%	55.4%
Clay County	6,802	20.9%	51.8%
Cleburne County	6,806	30.3%	43%
Jefferson County	307,372	2.9%	62%
Randolph County	12,056	23.5%	44.4%
St. Clair County	36,628	23.9%	26.9%
Talladega County	37,669	23.6%	49%

Source: U.S. Census Bureau (2014-2018)

Household income is a measure of the combined incomes of all people sharing a household or place of residence and is a useful economic indicator of an area’s standard of living. Median household income provides the midpoint of incomes represented in the area. St. Clair County represents the highest median household income at \$54,887, while Cleburne County shows the lowest at \$40,188. Table 2.9 shows Household Income Distribution by county.

Table 2.9: Household Income Distribution							
Income Level	Calhoun County	Clay County	Cleburne County	Jefferson County	Randolph County	St. Clair County	Talladega County
Less than \$15K	7,083	898	986	37,116	1,722	2,620	5,598
\$15-34,999 K	10,757	1,445	1,558	55,860	2,091	6,704	8,213
\$35-74,999 K	14,862	1,665	1,913	77,582	3,015	11,083	10,099
\$75-149,999 K	9,908	1,017	1,015	63,444	1,476	8,680	6,215
\$150,000 or more	2,423	211	254	26,922	339	2,085	1,282
Total Households	45,033	5,236	5,726	260,924	8,643	32,172	31,407
Median HH Income	\$45,197	\$41,225	\$40,188	\$51,979	\$41,449	\$54,887	\$41,012

Source: U.S. Census Bureau (2014-2018)

Unemployment rates for counties in AEMA Division G vary. The most recent unemployment average rates ranged from 3.7% (Calhoun County) to 2.8% (St. Clair County). Table 2.10 presents 2019 unemployment rates by county.

Table 2.10: Average Unemployment Rates by County	
County	Unemployment Rate
Calhoun County	3.7%
Clay County	3.2%
Cleburne County	3.3%
Jefferson County	3%
Randolph County	3.2%
Shelby County	2.3%
St. Clair County	2.8%
Talladega County	3.5%

Source: Alabama Department of Labor (2019)

Thriving educational attainment promotes opportunities for growth and economic development in the planning area. Increasing awareness of this data can also demonstrate areas for improvement. Below is educational attainment by county for the population 25 years and over (Table 2.11).

Table 2.11: Educational Attainment by County (Pop. 25 Years and Over)							
Educational Level	Calhoun County	Clay County	Cleburne County	Jefferson County	Randolph County	St. Clair County	Talladega County
Less than 9 th Grade	4,012	1,030	746	13,478	1,420	2,874	3,330
% of Total Pop. 25 Years +	5.1%	11.1%	7.1%	3.0%	9.0%	4.7%	5.9%
9 th -12 th Grade, No Diploma	8,608	1,245	1,618	32,547	1,920	6,381	7,341
% of Total Pop. 25 Years +	10.9%	13.4%	15.5%	7.3%	12.2%	10.5%	13.1%
High School Graduate	25,653	3,366	4,135	120,037	5,719	21,865	19,607
% of Total Pop. 25 Years +	32.4%	36.3%	39.6%	26.8%	36.3%	36%	34.9%
Some College, No Degree	20,474	1,807	2,029	100,061	3,091	14,038	13,255
% of Total Pop. 25 Years +	25.9%	19.5%	19.4%	22.3%	19.6%	23.1%	23.6%
Associate degree	6,169	893	489	37,147	1,238	5,549	4,572

% of Total Pop. 25 Years +	7.8%	9.6%	4.7%	8.3%	7.9%	9.1%	8.1%
Bachelor's Degree	8,060	510	927	88,777	1,436	6,805	4,993
% of Total Pop. 25 Years +	10.2%	5.5%	8.9%	19.8%	9.1%	11.2%	8.9%
Graduate or Professional Degree	6,159	434	501	56,685	914	3,186	3,024
% of Total Pop. 25 Years +	7.8%	4.7%	4.8%	12.6%	5.8%	5.2%	5.4%
Total Pop. 25 Years +	79,135	9,285	10,445	448,732	15,738	60,698	56,122

Source: U.S. Census Bureau (2014-2018)

2.3 Business and Industry

AEMA Division G 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, rivers, and a commercial airport. The region is home to a large, widely diversified economic base, with automotive and cabinet manufacturing facilities, Anniston Army Depot (major U.S. Army facility), higher education, medical and health services, financial services, telecommunications, government, utilities services, distribution facilities, natural resources, and retail trade. Overall, within the region over 75% of employment is within the services, management and business, and sales and office sectors of the economy. Major employers, defined as establishments with over 1,000 employees, are presented in Table 2.12.

Table 2.12: Major Employers (over 1,000 employees)		
Employer (County)	Product	# Employees
University of Alabama at Birmingham (Jefferson)	Higher Education	23,000
Regions Financial Corporation (Jefferson)	Financial Services	9,000
Anniston Army Depot (Calhoun)	Military Equipment	6,000
St. Vincent's Health System (Jefferson)	Health Care	5,100
Children's of Alabama (Jefferson)	Health Care	5,000
Honda of Alabama (Talladega)	Auto Manufacturing	5,000
AT&T (Jefferson)	Telecommunications	4,517
Brookwood Baptist Health (Jefferson)	Health Care	4,459
Jefferson County Board of Education	Education	4,400
City of Birmingham (Jefferson)	Government	4,200
Blue Cross-Blue Shield of Alabama (Jefferson)	Financial Services	3,100
Alabama Power Company (Jefferson)	Utilities Services	3,092
Birmingham Board of Education (Jefferson)	Education	2,721
Jefferson County Commission	Government	2,500
Birmingham Veterans Affairs Medical Center (Jefferson)	Health Care	2,440
Grandview Medical Center (Jefferson)	Health Care	2,172
U.S. Postal Service (Jefferson)	Government	2,000
BBVA Compass (Jefferson)	Financial Services	1,978
Wells Fargo (Jefferson)	Financial Services	1,978
Southern Company Services (Jefferson)	Utilities Services	1,881
Social Security Administration (Jefferson)	Government	1,800
Hoover Board of Education (Jefferson)	Education	1,773
Dollar General Distribution Center (Jefferson)	Wholesale Distribution	1,700
Protective Life Corporation (Jefferson)	Financial Services	1,550
American Cast Iron Pipe Corporation (Jefferson)	Manufacturing	1,400
N.E. Alabama Regional Med. Ctr (Calhoun)	Health Care	1,400
Samford University (Jefferson)	Higher Education	1,289

Drummond Companies (Jefferson)	Natural Resources	1,283
Alabama Institute for Deaf & Blind (Talladega)	Education	1,266
Calhoun County School System	Education	1,250
Wellborn Cabinets (Clay)	Manufacturing	1,200
New South Express (Talladega)	Auto Parts Supplier	1,127
Jacksonville State University (Calhoun)	Higher Education	1,077
State Farm Insurance (Jefferson)	Financial Services	1,069
Encompass Health Corporation (Jefferson)	Health Care	1,043
UAB Medical West (Jefferson)	Health Care	1,007

The industries mentioned above 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-20 that enters through Cleburne County and continues through Calhoun, Talladega, St. Clair, and Jefferson County west toward Birmingham. U.S. Highways 11, 78, 280, and 431 cross the region as well, though none span the whole region. 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 Birmingham-Shuttlesworth International Airport, located in Jefferson County, which offers 136 flights to 40 cities. Other public airports in the region include St. Clair County Airport (St. Clair County), Bessemer Airport (Jefferson County), Anniston Regional Airport (Calhoun County), Ashland/Lineville Airport (Clay County), Roanoke Municipal Airport (Randolph County), Sylacauga Municipal Airport (Talladega County), Talladega Municipal Airport (Talladega County), and McMinn Airport (Calhoun County).

Several rail lines also traverse the region. There are three Class I railroads, constituting seven routes. There are four by Norfolk Southern Corporation (through Calhoun, Cleburne, St. Clair, Jefferson, and Talladega counties), two by CSX Transportation (through Clay, Jefferson, Randolph, and Talladega counties), and one by Burlington Northern Santa Fe Railway (through Jefferson County). There are also several Class III railroads, including Alabama & Tennessee Railway, Eastern Alabama Railway, Alabama Warrior Railway, Birmingham Terminal Railway, and Southern Electric Railroad Company.

Utilities:

Electrical service in AEMA Division G is provided by Alabama Power and several electrical cooperatives and municipal authorities. Alabama Power serves most areas throughout the region. In addition, many areas utilize TVA supplied power with the Alabama Municipal Electric Authority. There are also several municipal electric systems, including Tallapoosa River Electric Cooperative and Coosa Valley Electric Cooperative.

Water and sewer services are 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 Alabama Gas Corporation, with other areas serviced by the East Alabama Gas District. Several municipalities have their own natural gas distribution systems.

2.5 Land Use and Development Trends

East Alabama is a largely rural region with many small towns, a few major metropolitan areas, agricultural and silvicultural uses, and Anniston Army Depot, with other scattered military zones that comprise the planning area. The largest developed urban area in the region and state is Birmingham with a population of over 200,000, which has been a historically rapidly growing metropolitan area centered in Jefferson County. Birmingham is a regional economic powerhouse that attracts people statewide to engage in commercial, medical, manufacturing, and other activities. Hoover, a suburb of Birmingham, is the second largest city in the region with over 58,000 people and has been a fast-developing area. Bedroom communities near both Birmingham and Hoover in Calhoun, St. Clair, and Talladega counties have grown over the past couple of decades.

Vestavia Hills is the only municipality with a population between 30,000 and 40,000. Its growth can be attributed mainly to its attractiveness as a Birmingham suburb. Municipalities with a population between 20,000 and 30,000 include Anniston, Bessemer, Homewood, and Mountain Brook. Centerpoint, Fairfield, Gardendale, Hueytown, Irondale, Jacksonville, Moody, Oxford, Pell City, Pleasant Grove, Sylacauga, Talladega, and Trussville all have populations between 10,000 and 20,000. The region's major universities, the University of Alabama at Birmingham, and Jacksonville State University, are key contributors to growth.

Overall, the AEMA Division G area grew over two percent (2.5%) from 2000 through 2010. Most of this increased growth occurred within and adjacent to Birmingham. 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.

Section Contents

- 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

3.1 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). Participating jurisdictions seeking plan adoption include Randolph and St. Clair Counties, Argo, Ashville, Margaret, Moody, Odenville, Pell City, Ragland, Riverside, Roanoke, Springville, Steele, Wadley, Wedowee, and Woodland. 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 Randolph and St. Clair 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 five other counties (Calhoun, Clay, Cleburne, Jefferson, and Talladega) located within AEMA Division G 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. The direction of this process will be discussed with the Division Coordinator and local EMA directors.

3.3 Hazard Mitigation Planning Process

The AEMA Division G Multi-Jurisdictional Hazard Mitigation Plan was developed through interaction between AEMA Division G EMA directors, the AEMA Division G Coordinator, and the East Alabama Regional Planning and Development Commission (EARPDC), 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 through phone conversation or in-person meeting
- Represent their jurisdiction’s interests, including gathering information and providing feedback, including providing survey comments or marking up information on their existing hazard mitigation plan
- 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 invited to review the Risk, Vulnerability, and Mitigation components of the Hazard Mitigation Plan. During Spring and Summer 2020, 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 2020. 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. 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 Regional Hazard Mitigation Planning Committee (known commonly as AEMA Division G Steering Committee)

Jurisdiction	Primary Contact	Attended Meetings	Provided Written Comments	In-Person or Phone Consultation
Randolph County	Donnie Knight-EMA Director	X	X	X
EMA	Jan Prescott- Assistant Director	X	X	X
EMA	Joyce Sledge-Knight-Volunteer	X		
Randolph County Sheriff's Department	Donnie Strain-Investigator	X	X	X
Morrison's Crossroads VFD	Chief Danny Joe McCord			X
Woodland VFD	Fireman Curtis Deason			X
Wadley VFD	Chief Dale Knight	X		X
Clay County Hospital	Nurse Frances Williamson	X	X	X
Roanoke Police Department	Chief Adam Melton			X
Randolph County Commission	Commissioner Larry Roberts			X
Randolph County E-911	Director Kelly Edwards	X		X
Randolph County Sheriff's Dept.	Sheriff David Cofield	X	X	X
Wedowee Police Department	School Resource Officer Robbie Taylor			X
Randolph County Board of Education	Superintendent John Jacobs			X
Williams Gas Pipelines	Sr. Operations Manager Kevin Mazingo	X		
Randolph County Sheriff's Dept.	Deputy Nathaniel Morrow	X	X	X

Jurisdiction	Primary Contact	Attended Meetings	Provided Written Comments	In-Person or Phone Consultation
St. Clair County	Brian Schaefers- EMA Planner	X	X	X
EMA	Patrice Kurzejeski- Assistant Director	X	X	X
City of Argo	Chief James Downing	X		
City of Argo	Scott Payne- Interim Fire	X		X
City of Ashville	Fire Chief Mike Barry	X		
City of Margaret	Mayor Isaac Howard		X	
City of Moody	Fire Chief Larry Horton	X	X	
City of Moody	Fire Captain Barry Wright			
City of Odenville	Fire Chief David Davis	X		
City of Pell City	Jeanette Jueckstock - Planning and Zoning Admin Clerk		X	
Town of Ragland	Tim McKinney- Public Utilities Supervisor	X	X	X
Town of Riverside	Fire Chief Tim Kurzejeski	X		
City of Springville	Fire Chief Richard Harvey	X	X	X
Town of Steele	Fire Chief James Martin	X	X	
Unincorporated County	Tina Morgan- County Administrator			X
St. Clair County Road Department	Dan Dahlke- County Engineer	X		X
Pell City Schools	Superintendent Dr. Michael Barber			X
St. Clair County Schools	Superintendent Mike Howard			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. 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. Due to the ongoing pandemic, many meetings took place via teleconference. Public response was limited but was utilized to shape the plan as a whole, evaluate mitigation actions, and review plan drafts before submission.

Documentation of public participation is also included in Appendix B. Future updates will work to incorporate additional public involvement, as described in Section 6.3.

The East Alabama Regional Planning and Development Commission (EARPDC) and local EMA directors consulted with multiple stakeholders in formation of the plan. The U.S. Army Corps of Engineers provided information concerning dam failure and mitigation. The Alabama Forestry Commission provided information pertaining to wildfires. The Alabama Flood Map was consulted regarding flood plains and flood depths. The Geological Survey of Alabama (GSA) was consulted for landslide, land subsidence, and earthquake hazard information. Concepts of the Plan update were discussed with regional partners, including EMA offices in counties.

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 (2018 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 seven counties in AEMA Division G has previously developed local hazard mitigation plans. These plans were reviewed for consistency of information within the regional plan.

EARPDC Comprehensive Economic Development Strategy (CEDS) (2019 Update):

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

Regional Planning Commission of Greater Birmingham (RPCGB) Comprehensive Economic Development Strategy (CEDS) (2017-2022):

The RPCGB CEDS was consulted to ensure the Hazard Mitigation Plan is consistent with the economic development strategy for the seven-county East Alabama region.

Emergency Operations Plans

Each county in AEMA Division G has an Emergency Operations Plan (EOP) that is utilized in an emergency. 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 (2018 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.

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 Summary of Historic Hazard Occurrence by Jurisdiction
- 4.9 Hazard Impacts
- 4.10 Vulnerable Populations in Randolph and St. Clair Counties
- 4.11 Jurisdictional Vulnerability by Hazard in Randolph and St. Clair Counties

4.1 Hazard Overview

Randolph and St. Clair Counties are 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

Randolph and St. Clair Counties are 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.

Due to its geographical location, areas in Randolph and St. Clair Counties 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)	Randolph and St. Clair Counties are an inland area
Dam Failure	Yes	USACE National Inventory of Dams (<a :"="" href="https://nid.sec.usace.army.mil/ords/f?p=105:1:::">https://nid.sec.usace.army.mil/ords/f?p=105:1:::":)	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 U.S. 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	NOAA National Climatic Data Center (http://www.ncdc.noaa.gov/stormevents/) /NWS Tornado Database (https://www.weather.gov/bmx/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 (https://www.disasterassistance.gov/information/disaster-types/tsunami)	Randolph and St. Clair Counties are in an inland area
Volcano	No	FEMA, Volcanoes (https://www.disasterassistance.gov/information/disaster-types/volcano)	Not near an active volcano
Wildfire	Yes	Alabama Forestry Commission Current Wildfire Totals (https://forestry.alabama.gov/Pages/Fire/Totals.aspx)	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.

Randolph and St. Clair Counties been included in 22 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).

Table 4.2: Randolph and St. Clair Counties Federally Declared Disasters

Declaration Date	Disaster Number	Type of Incident	Counties Declared
March 27, 1973	369	Tornadoes/Flooding	St. Clair
May 29, 1973	388	Severe Storms/Flooding	St. Clair
March 14, 1975	458	Severe Storms/Flooding	St. Clair
October 2, 1975	488	Severe Storms/Tornadoes/Flooding	St. Clair
April 9, 1977	532	Severe Storms/Flooding	St. Clair
April 18, 1979	578	Storms/Wind/Flooding	Randolph & St. Clair
February 17, 1990	856	Flooding/Severe Storms/Tornadoes	Randolph & St. Clair

Declaration Date	Disaster Number	Type of Incident	Counties Declared
March 21, 1990	861	Flooding/Severe Storms/Tornado	Randolph
March 30, 1994	1019	Severe Storm/Flooding/Tornado	St. Clair
July 8, 1994	1034	Severe Storm/Flooding/Tropical Storm Alberto	Randolph
October 4, 1995	1070	Hurricane Opal	Randolph & St. Clair
March 9, 1998	1208	Severe Storms/Flooding	Randolph
April 9, 1998	1214	Tornadoes/Severe Thunderstorms	St. Clair
December 18, 2000	1352	Tornadoes	St. Clair
December 7, 2001	1399	Severe Storms/Tornadoes	St. Clair
November 14, 2002	1442	Severe Storms/Tornadoes	St. Clair
May 12, 2003	1466	Severe Storms/Tornadoes/Flooding	Randolph & St. Clair
September 15, 2004	1549	Hurricane Ivan	Randolph & St. Clair
July 10, 2005	1593	Hurricane Dennis	Randolph
April 28, 2011	1971	Severe Storms/Tornadoes/Straight-line Winds/Flooding	St. Clair
January 21, 2016	4251	Severe Storms/Tornadoes/Straight-line Winds/Flooding	St. Clair
April 26, 2018	4362	Severe Storms/Tornadoes	St. Clair

Source: Federal Emergency Management Agency (May 2020)

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. For this reason, dam failures can occur from natural causes, human causes, or both. Failures can be the source of intense flooding events. 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 several attempts in the State of Alabama to pass legislation that would require inspection of dams on bodies of water over 50 acre-feet or dams higher than 25 feet. Enactment has been hampered by the opposition of agricultural interest groups and insurance companies. Once established, the program will provide an up-to-date inventory of dams in Randolph and St. Clair Counties.

Locations Affected

There are 82 recorded dams in St. Clair and Randolph Counties listed in the National Inventory of Dams (NID), which is maintained by the U.S. Army Corps of Engineers (USACE). Of these, approximately three (3) 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 dams. There are also private dams in many areas that are not necessarily known by local authorities.

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	Hazard Potential	NID Height (ft)	NID Storage (acre ft)	Location (LAT/LONG)
High Pine Creek Watershed Dam Site 1	Randolph	Low	64	639	33.2833, -85.3417
High Pine Creek Watershed Dam Site 2	Randolph	Significant	40	2343	33.1758, -85.375
High Pine Creek Watershed Dam Site 3	Randolph	Low	30	967	33.1758, -85.3417
High Pine Creek Watershed Dam Site 4	Randolph	Low	42	776	33.2117, -85.3783
High Pine Creek Watershed Dam Site 5	Randolph	Low	35	501	33.215, -85.3889

Dam Name	County	Hazard Potential	NID Height (ft)	NID Storage (acre ft)	Location (LAT/LONG)
High Pine Creek Watershed Dam Site 6	Randolph	Significant	57	1676	33.1875, -85.4972
Roanoke City Reservoir	Randolph	Low	14	140	33.1633, -85.4033
Nelson	Randolph	Low	25	500	33.4016, -85.4966
Strain	Randolph	Low	22	90	33.3533, -85.4966
Carpenter	Randolph	Low	26	65	33.3133, -85.4516
Brady Lake	Randolph	Low	28	120	33.4566, -85.535
New Hope	Randolph	Low	25	90	33.3183, -85.4233
Higgins	Randolph	Low	20	70	33.285, -85.31
Rice	Randolph	Low	24	60	33.1566, -85.3566
Lake Louise	Randolph	Low	29	450	33.1166, -85.38
Concord	Randolph	Low	34	220	33.12, -85.505
Clegg & Pearson	Randolph	Low	20	50	33.115, -85.5016
McMurray	Randolph	Low	22	106	33.1394, -85.4027
Boyd	Randolph	Low	29	180	33.425, -85.5466
Frost	Randolph	Low	25	45	33.13, -85.5966
College Lake	Randolph	Significant	21	172	33.1336, -85.5711
Wedowee Club Lake	Randolph	Low	30	110	33.305, -85.44
Burns No. 2	Randolph	Low	10	56	33.305, -85.44
High Pine Creek Watershed Site 10	Randolph	Low	37	761	33.12, -85.4236
Moore	Randolph	Low	32	150	33.35, -85.31
Gray	Randolph	Low	24	120	33.4783, -85.53
McCain	Randolph	Low	28	150	33.3316, -85.4783
Transco	Randolph	Low	38	100	33.1382, -85.505

Knight	Randolph	Low	35	100	33.1566, -85.5616
Schuessler	Randolph	Low	25	100	33.2216, -85.3183
McManus	Randolph	Low	27	60	33.2633, -85.425
R.L. Harris	Randolph	High	163	426000	33.2585, -85.6108
Chandler Mountain	St. Clair	Low	25	2460	33.9416, -86.2383
Luker	St. Clair	Significant	24	85	33.5783, -86.4216
Watkins	St. Clair	Low	16	70	33.66, -86.36
Minith	St. Clair	Low	22	57	33.685, -86.51
Joyce Lake	St. Clair	Low	9	212	33.6166, -86.4833
Catfish Lake	St. Clair	Significant	15	60	33.625, -86.4666
Halls	St. Clair	Low	9	50	33.5866, -86.4783
Purvis	St. Clair	Significant	20	50	33.5466, -86.46
Hames	St. Clair	Low	28	80	33.505, -86.455
Schneider	St. Clair	Significant	17	50	33.545, -86.4566
Hoover	St. Clair	Low	15	50	33.61, -86.435
Clayton Dam	St. Clair	Low	15	60	33.6383, -86.4033
Lazy Ranch Dam	St. Clair	Significant	15	57	33.64, -86.4533
Martin	St. Clair	Low	20	125	33.695, -86.4883
Tadpole	St. Clair	Low	23	100	33.7033, -86.5033
Watkins	St. Clair	Low	30	80	33.6533, -86.515
James	St. Clair	Significant	30	180	33.6116, -86.5433
Riddle	St. Clair	Low	15	50	33.7066, -86.4466
Trucks	St. Clair	Low	17	269	33.7183, -86.4616
L and M	St. Clair	Significant	20	200	33.7216, -86.45

Dam Name	County	Hazard Potential	NID Height (ft)	NID Storage (acre ft)	Location (LAT/LONG)
Springville Sportsmans	St. Clair	Significant	30	360	33.72, -86.415
Ezell Jenkins	St. Clair	Low	21	85	33.97, -86.215
W. L. Golden	St. Clair	Low	30	90	33.5583, -86.3366
Chulavista	St. Clair	Low	38	100	33.5866, -86.3566
Borders	St. Clair	Low	23	140	33.7516, -86.1966
Sumatanga	St. Clair	Significant	30	585	33.96, -86.26
Huff	St. Clair	Low	15	50	33.9716, -86.2866
Baptist Lake	St. Clair	Low	28	180	33.6033, -86.395
Rumac	St. Clair	Low	10	140	33.8833, -86.245
Wancoole	St. Clair	Low	19	80	33.62, -86.2483
Pinedale	St. Clair	Low	20	1300	33.835, -86.3066
Baswell	St. Clair	Low	13	55	33.8383, -86.2083
Cobb	St. Clair	Significant	15	52	33.8016, -86.315
Howell	St. Clair	Significant	30	138	33.7516, -86.43
Hickman	St. Clair	Significant	15	80	33.7666, -86.46
Larry Jenkins	St. Clair	Low	18	98	33.9216, -86.285
Springville Estate	St. Clair	Significant	25	195'	33.795, -86.5083
Golden	St. Clair	Low	15	50	33.8, -86.5333
National	St. Clair	Significant	12	53	33.725, -86.1566
Tekawitha	St. Clair	Low	14	50	33.7716, -86.555
Farr	St. Clair	Low	15	94	33.8116, -86.2666
Elam	St. Clair	Significant	24	60	33.7683, -86.4816
Stolle	St. Clair	Low	16	193	33.8116, -86.2633

Dam Name	County	Hazard Potential	NID Height (ft)	NID Storage (acre ft)	Location (LAT/LONG)
Pope	St. Clair	Significant	20	56	33.9333, -86.2183
Burch	St. Clair	Low	18	58	33.7533, -86.4416
Harbert	St. Clair	Low	25	75	33.7916, -86.4366
QSL Fish Hatchery	St. Clair	Low	14	84	33.65, -86.3983
Carl Wittichen	St. Clair	Significant	17	312	33.833, -86.333
Logan Martin	St. Clair/Talladega	High	142	650000	33.4267, -86.3383
H. Neely Henry	St. Clair/Calhoun	High	104	121860	33.7833, -86.0533

Source: *The National Inventory of Dams (NID) (9/16/20)*

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, regarding 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 (Published April 2004)*

In most areas of the region, the extent of damage caused by dam failure would include a flooding depth of up to several feet that would damage agricultural areas, isolated structures, and some public infrastructure, including adjacent streets. R.L. Harris, Logan Martin, and H. Neely Henry are considered the only high hazard dams in Randolph and St. Clair Counties. Of these high hazard dams, the Logan Martin Dam located on the Coosa River in St. Clair County is classified as poor or unsatisfactory condition (Alabama State Hazard Mitigation Plan, 2018). There are twenty (20) significant hazard dams in the planning area. All other dams are considered low hazard.

Historical Occurrences

Dam failures are extremely rare events. Historical records of dam failures are not available for Randolph County; there have been no significant dam or levee failures in Randolph County. However, Wadley has been susceptible to high water releases from R.L. Harris Dam. Incidents are detailed below.

On May 10, 2003, The Tallapoosa River at Wadley was above the flood stage of 13 feet. A crest of approximately 38 feet occurred in the afternoon of May 8. The crest height and time were estimated because the river gauge on SR 22 bridge over the river was under water. The city of Wadley was cut off on the 8th and 9th due to flooding of SR 22 both west and east of the town. The historic flooding came after an estimated 10 inches of rain fell across a large portion of the Tallapoosa River basin. The R. L. Harris Dam opened five of six gates to release water from behind the dam. Several buildings were flooded in and around Wadley including a small market on the west side of Wadley on SR 22 which had 3 feet of water inside. Farm equipment was caught in areas near the river and flooded.

In St. Clair County, on November 24, 2004, several roads were reported covered with water and were temporarily impassable. Several area streams and creeks rose above the banks. Doppler radar estimated widespread rain amounts of 4 to 5 inches with a few spots approaching 12 inches. A potential dam break situation developed in the afternoon. The dam eventually failed near the Friendship Community resulting in significant damage. Runoff from these storms lasted for several hours after the heaviest rains ended. A 73-year-old man died when his car was swept away in the high water near Pinedale Road. Property damages in the amount of \$400,000 and one death resulted.

Probability of Future Events

The probability of future events cannot be identified due to low information availability. The previous occurrence of dam failure known regionally transpired due to historically extensive rainfall over a large area. There is one documented occurrence of dam failure within the planning area. 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. 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, 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 stream flows 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) (Published January 1997)

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 Randolph and St. Clair Counties, 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.

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 (2020)*

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. The NCDC Storm Events Database recorded temperatures from 105 to 109 degrees in the planning area in August 2008. Severe droughts and heat waves may also increase incidence of wildfires.

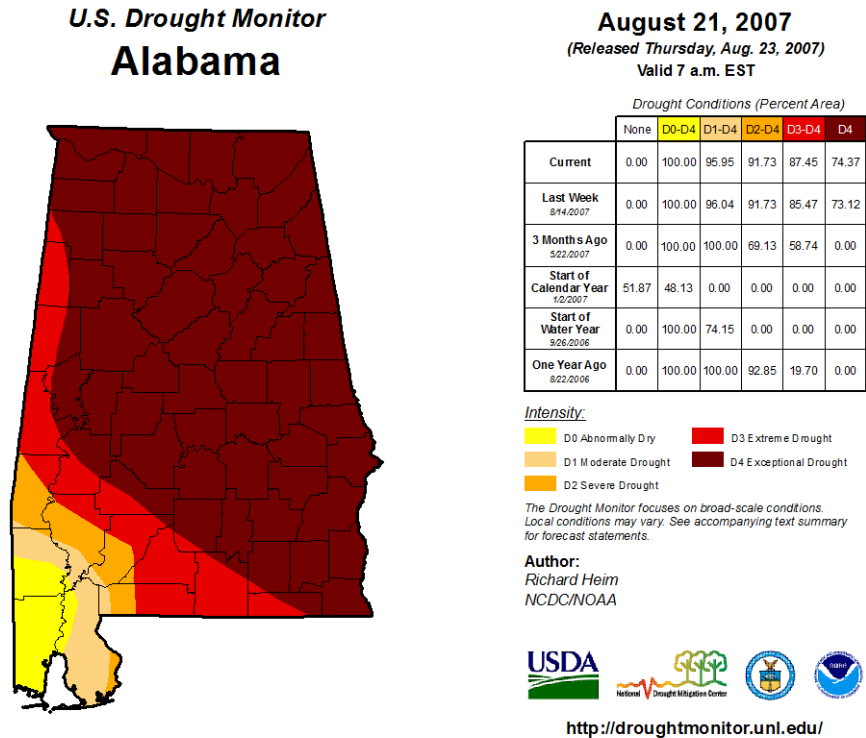
Historical Occurrences

There have been multiple incidences of drought and extreme heat occurrences in Randolph and St. Clair Counties. According to the NCDC Storm Events Database, the planning area has experienced 65 drought events since 2000. 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 mid-summer through late autumn that hovered from abnormally dry (D1) to severe drought (D2) from July to October. From March 2007 through 2008, drought conditions returned to the planning area, with extreme (D3) conditions in May 2007, and exceptional (D4) conditions affecting St. Clair beginning in June and Randolph beginning in July. This continued through February 2008, before slowly subsiding. On August 8, 2008, mercury climbed above 105 degrees to as high as 109 degrees. This enduring drought greatly affected agricultural production and hydrological levels were way below normal, with flow levels generally 25 percent or less of normal. Reservoir levels showed limited improvement due to rainfall that occurred during the month. The threat of water shortages for municipal water systems persisted, and most water restriction plans already in place continued. The drought event was so severe that the Federal Government declared all Alabama counties Natural Disaster areas.

Figure 4.1 below of the U.S. Drought Monitor Map from August 21, 2007 displays the widespread nature of that particular drought.

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



Source: *The National Drought Mitigation Center (Accessed 2020)*

Most recently, Randolph County experienced severe (D2) to exceptional (D4) drought conditions from January 2012 through January 2013 having hydrologic, agricultural, and sociological impacts. St. Clair County most recently experienced severe (D2) to exceptional (D4) drought conditions from September 2016 to January 2017, eventually reducing due to above average rainfall amounts.

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.

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 East Alabama. Most Alabama earthquakes have been linked to the Southern Appalachian Seismic Zone (Geological Survey of Alabama). Randolph and St. Clair Counties are not especially at risk from an earthquake, though minor effects from the four aforementioned seismic zones are not out of the question; that is, impacts can vary depending on the magnitude and epicenter location.

Locations Affected

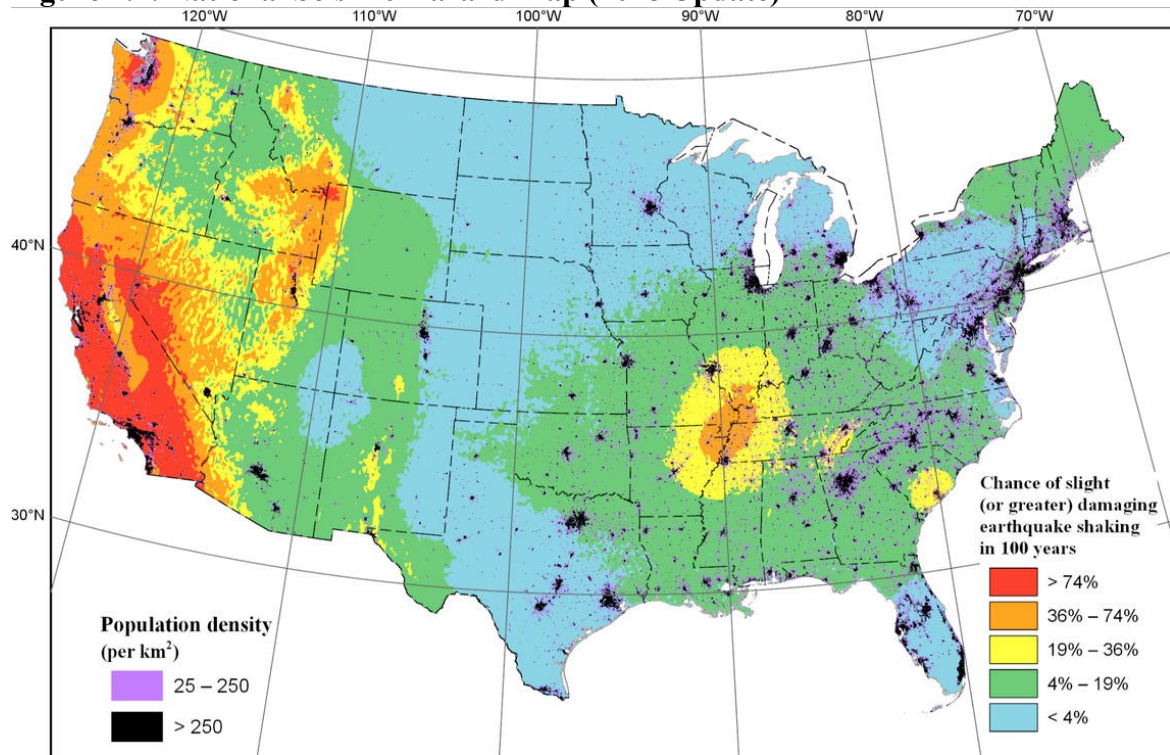
According to the United States Geological Survey (USGS), the maximum peak acceleration for the planning area is a very low seismic risk and there is only one earthquake epicenter that has been recorded within the region. There is also a possibility of minor effects occurring in the region if a major 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 probability within 100 years. The map data represents the chance of experiencing potentially damaging ground shaking for fixed ground shaking levels that corresponds with Modified Mercalli Intensity (MMI) equal to VI, in 100 years. The values are obtained by averaging the probability of experiencing MMI VI based on a peak ground acceleration, and the probability of experiencing MMI VI based on 1.0-second spectral acceleration (United States Geological Survey). The below Figure 4.2 shows chance-of-damage for 100 years with population density superimposed; Alabama is at the lower end of the scale, with the majority of the state having a 4%-19% chance of slight (or greater) damaging earthquake shaking in 100 years.

Figure 4.2: National Seismic Hazard Map (2018 Update)



Source: United States Geological Survey (2020)

Historical Occurrences

There have been no recorded earthquake events with an epicenter in Randolph County (Figure 4.3). The nearest recorded earthquake with any effect on Randolph County occurred on April 29, 2003, 85.5 miles away from the county's center. The epicenter recorded a magnitude of 4.9. The County received only minor effects with no recorded damages.

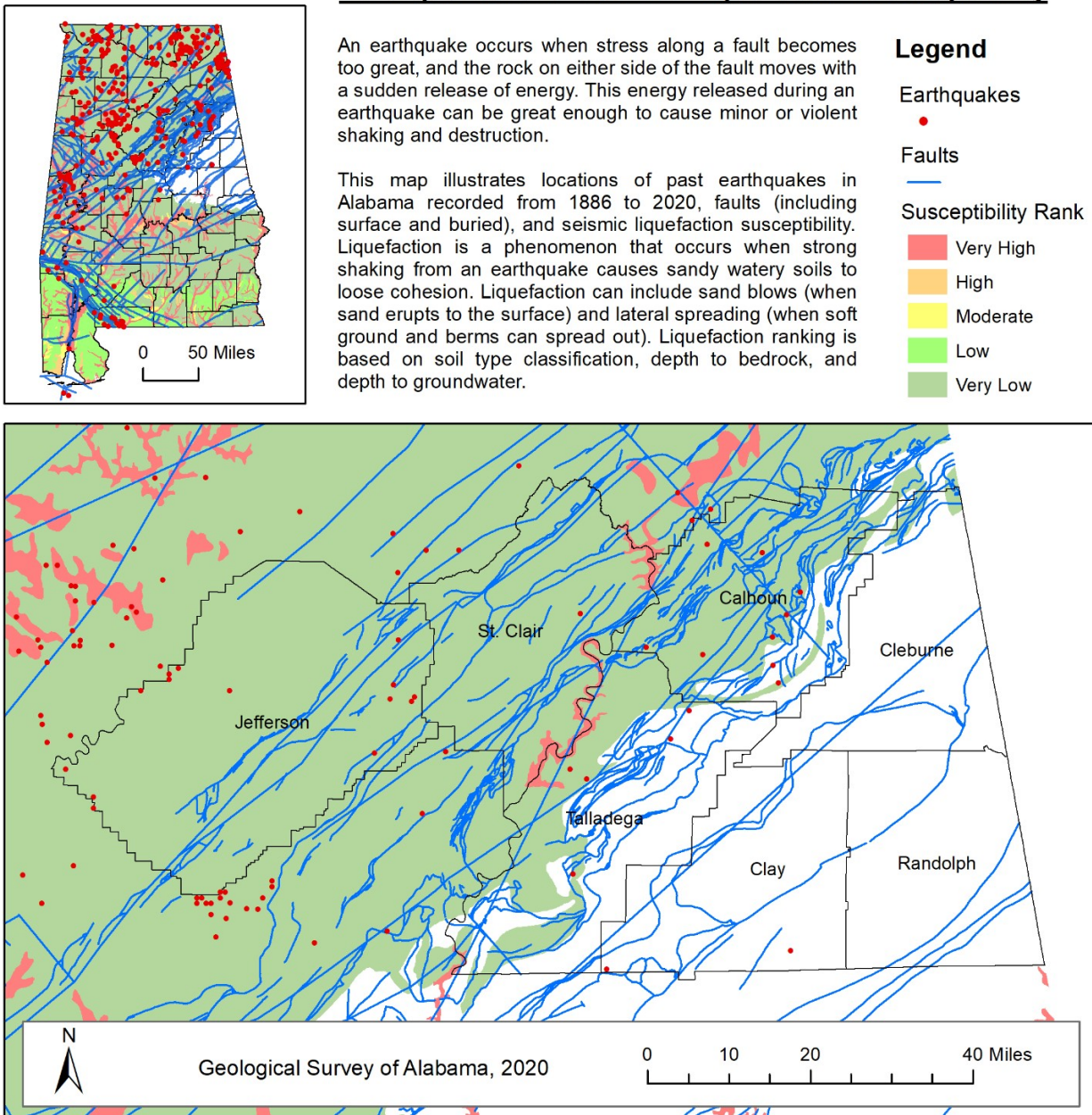
Since 1916, there have been no earthquakes documented in St. Clair County; however, a couple of recent earthquakes were recorded in Helena, AL (Shelby County) just south of St. Clair County. These occurred in April and May of 2004 and were felt by much of the St. Clair County area. On October 18, 1916, a strong earthquake occurred on an unnamed fault east of Birmingham in Shelby County. This was the strongest earthquake ever to occur in Alabama. It was noted by residents in St. Clair County and affected 100,000 square miles. The epicenter is in an area that was rural at the time of the earthquake. The epicenter of an earthquake has not been located within the limits of St. Clair County in the 20th Century. Today this area is highly populated, and many structures are situated on steep hillsides susceptible to landslides. Another earthquake of the same magnitude in this area would cause considerable damage today.

The extent/range of magnitude or strength that could be experienced by Randolph and St. Clair Counties due to an earthquake event is up to VI on the MMI scale according to Figure 4.2; however, the probability of occurrence is 4-19%.

Probability of Future Events

Most earthquakes in Randolph and St. Clair Counties have been low magnitude events with, at most, minor damage, and there have been no recorded earthquakes centered within the planning area in the 20th century. However, there are concerns that a high magnitude event is an eventuality, and earthquakes are becoming a concern for the counties. Therefore, the probability of an impactful earthquake on the region is Low to Moderate.

Figure 4.3: Historical Earthquake Epicenters and Susceptibility in AEMA Division G Earthquakes and Seismic Liquefaction Susceptibility



Source: Geological Survey of Alabama, 2020

FLOODING

Background

Flooding is considered the most frequent and costly natural hazard in the United States and within Randolph and St. Clair Counties. 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 Randolph and St. Clair Counties: 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 the planning area have been associated with severe storms and other weather events. Flash flooding is normally instigated by intense amounts of precipitation over a short time period in a localized area. In Randolph and St. Clair Counties, flash flooding often occurs due to inadequate or clogged drainage systems or excessive rainfall. Unpaved dirt roads, common in the rural regions of the planning area, are vulnerable as well. 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 4.4-4.19 show the location of currently mapped flood hazard areas for Randolph and St. Clair Counties and their jurisdictions, based on the most recent FEMA National Flood Hazard Layer available. This map includes areas designated as 100-year flood hazards (one-percent annual chance flood) and 500-year flood hazards (0.2 percent chance of flooding in any given year). 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: Randolph County Flood Hazard Areas

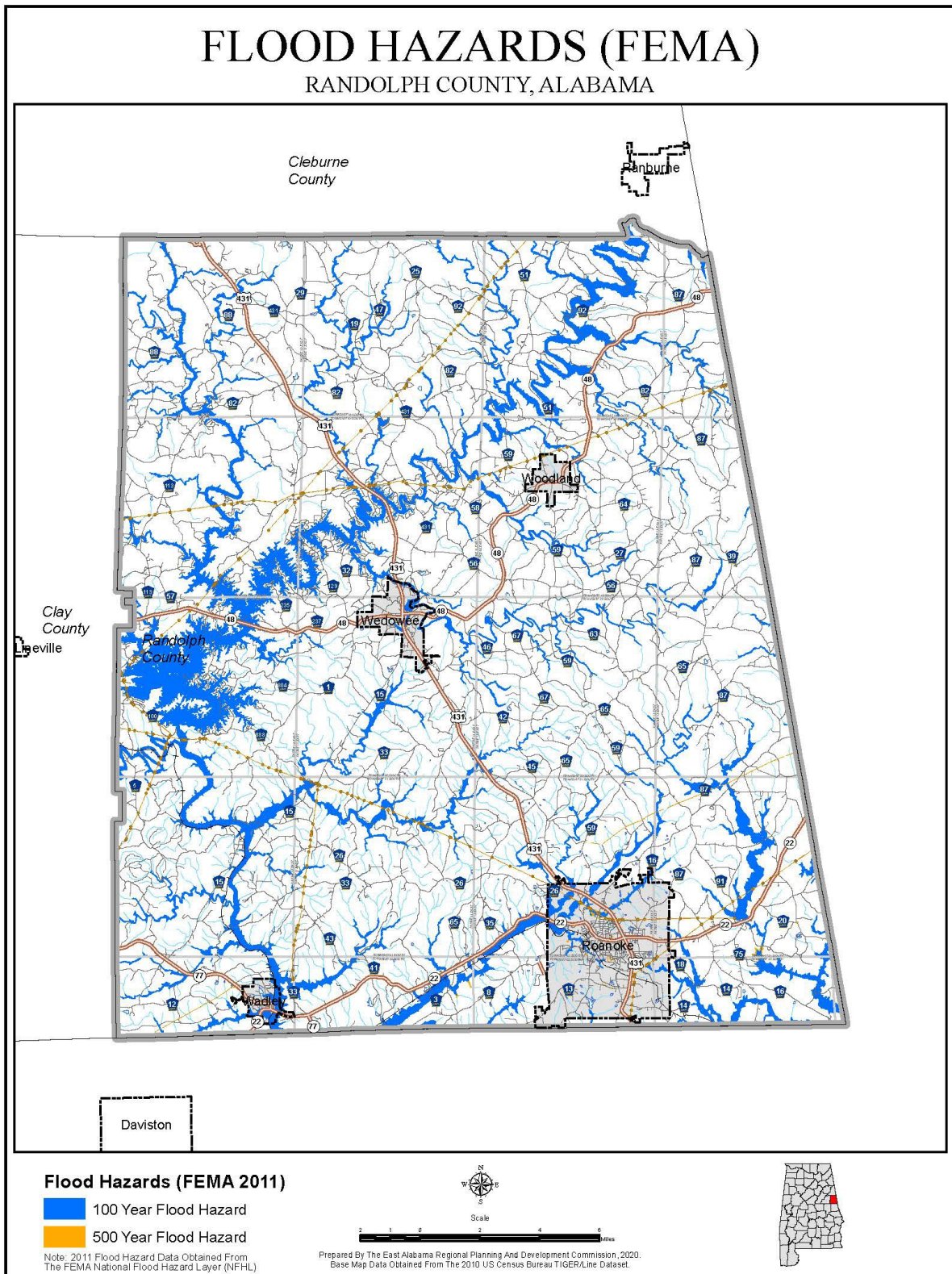


Figure 4.5: Roanoke Flood Hazard Areas

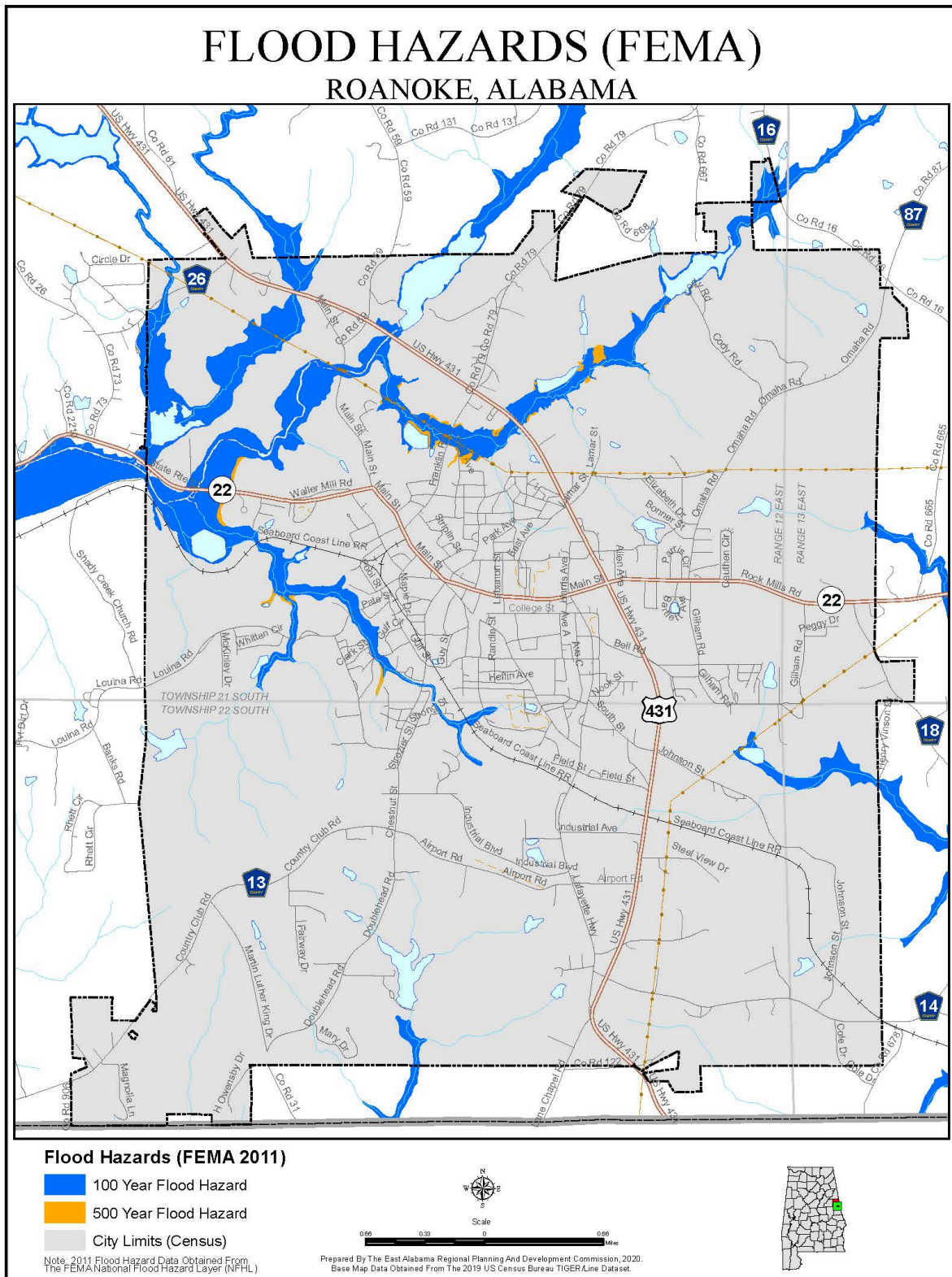


Figure 4.6: Wadley Flood Hazard Areas

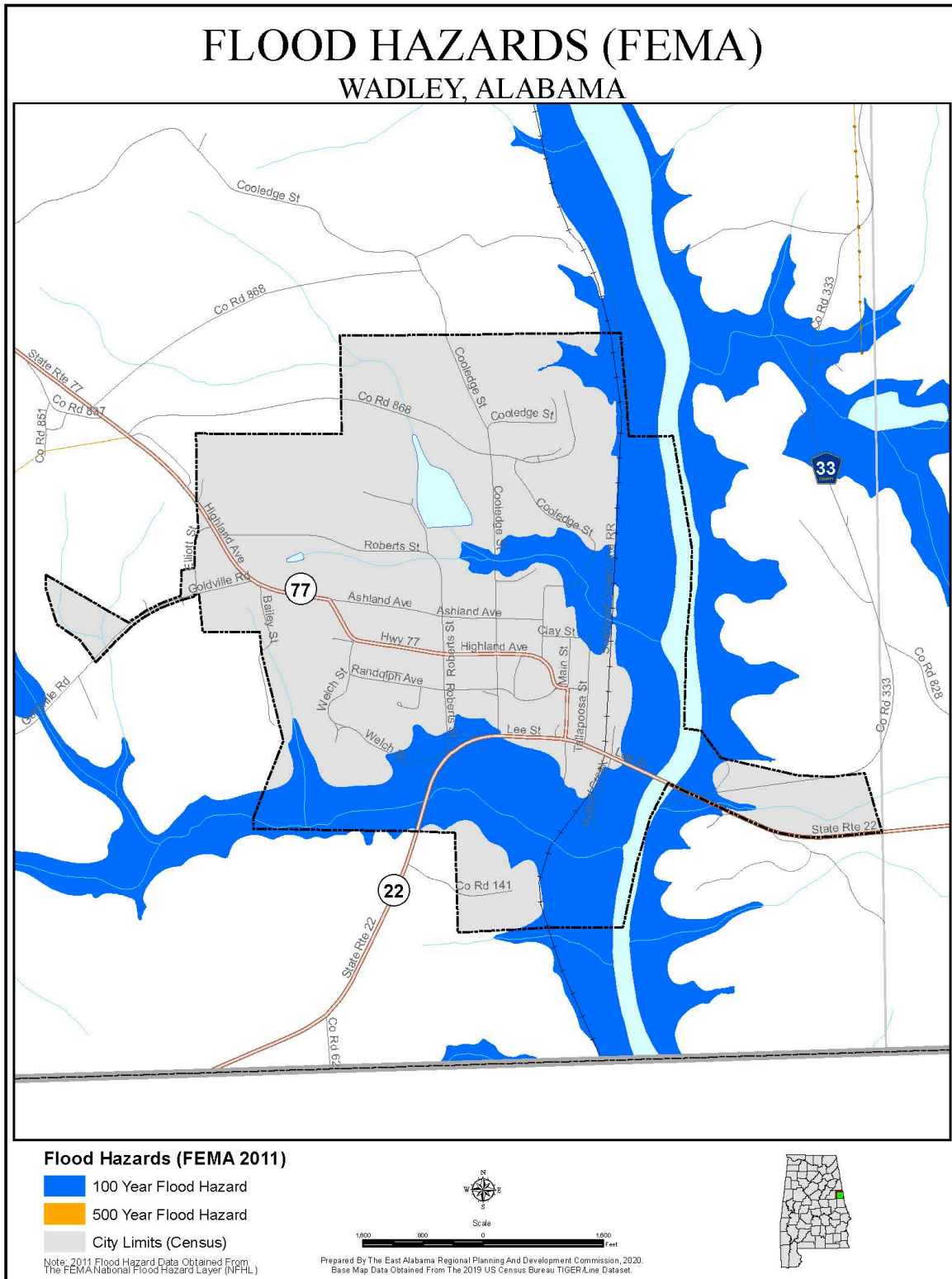


Figure 4.7: Wedowee Flood Hazard Areas

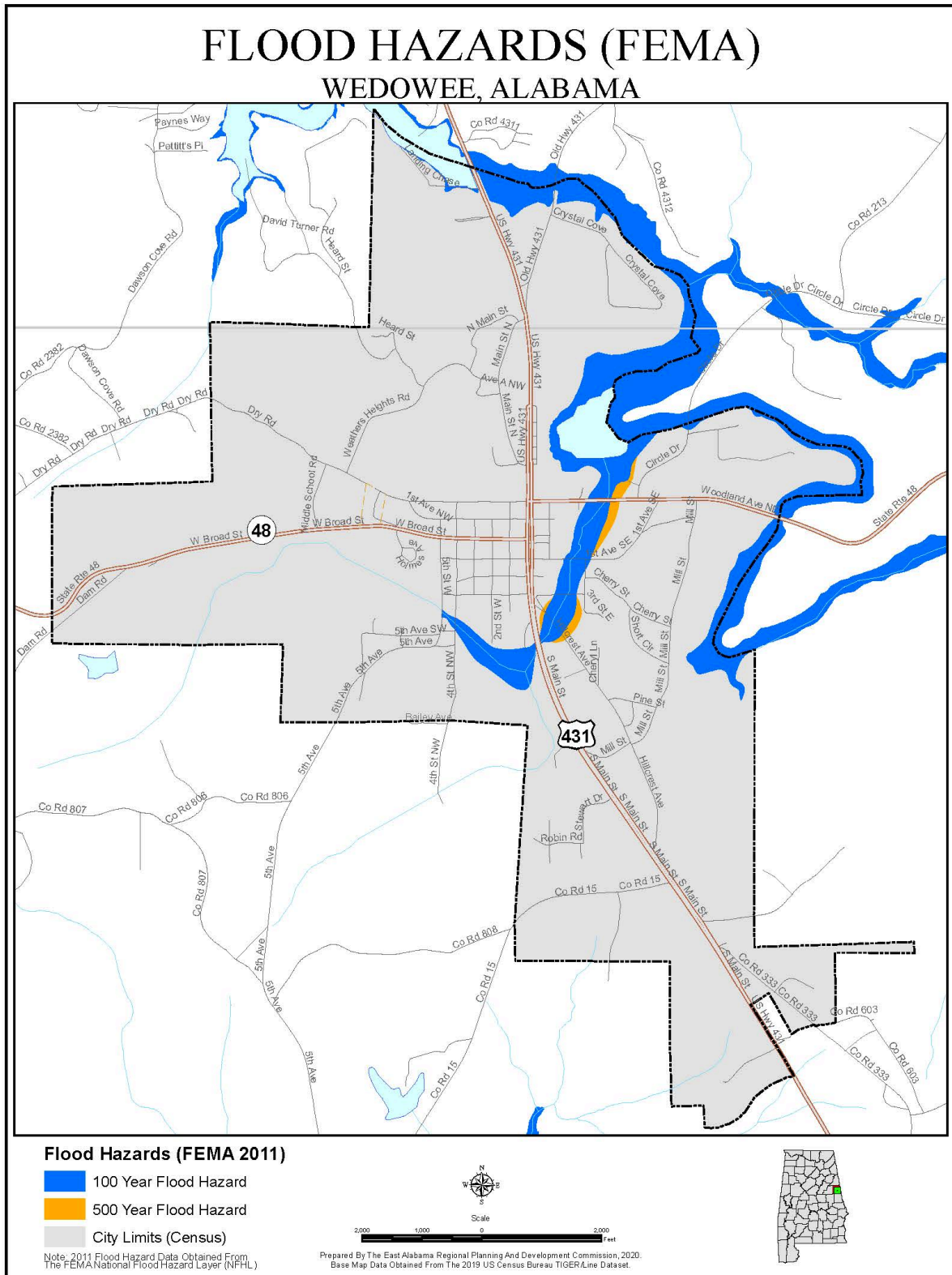


Figure 4.8: Woodland Flood Hazard Areas

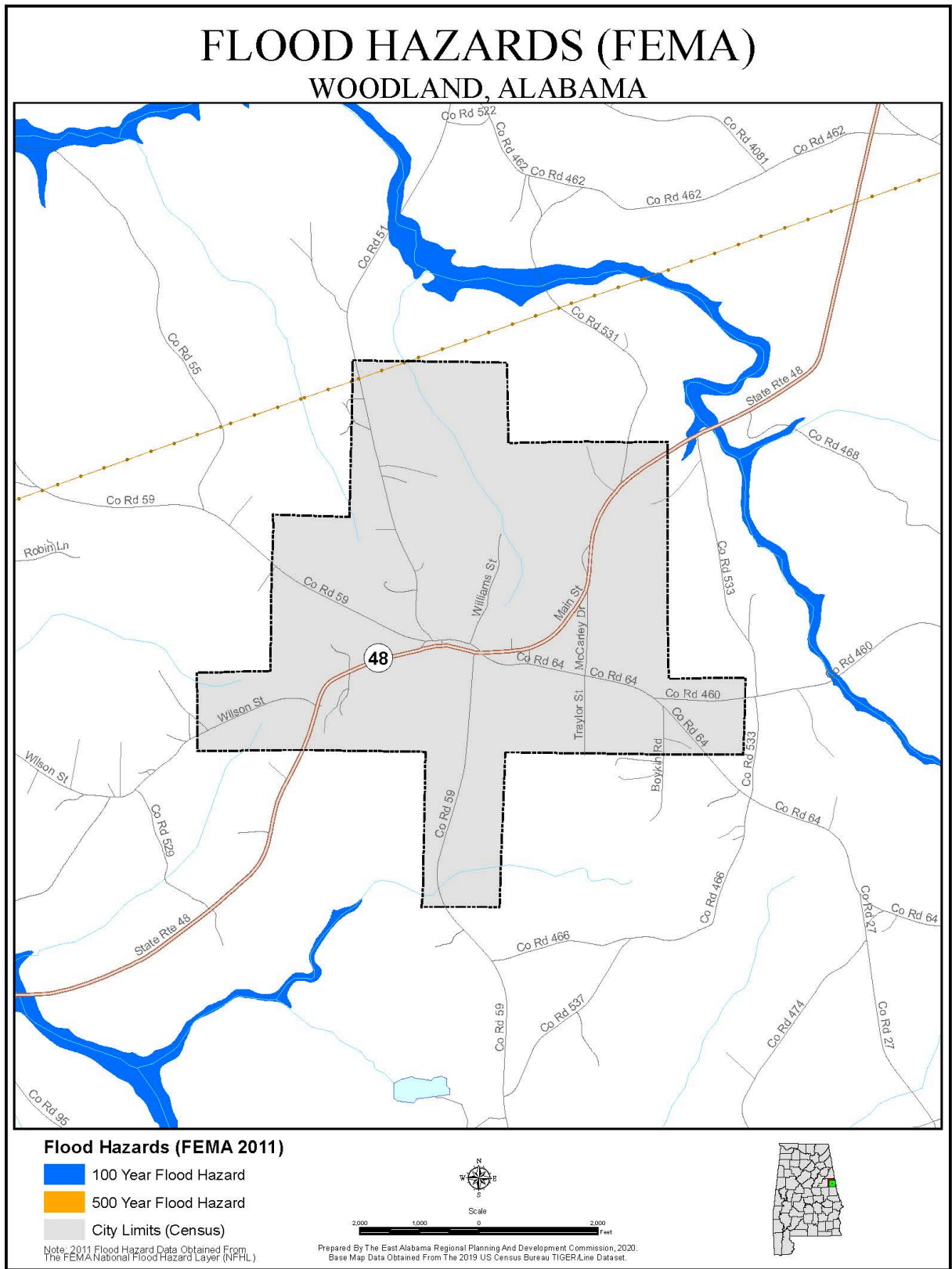


Figure 4.9: St. Clair County Flood Hazard Areas

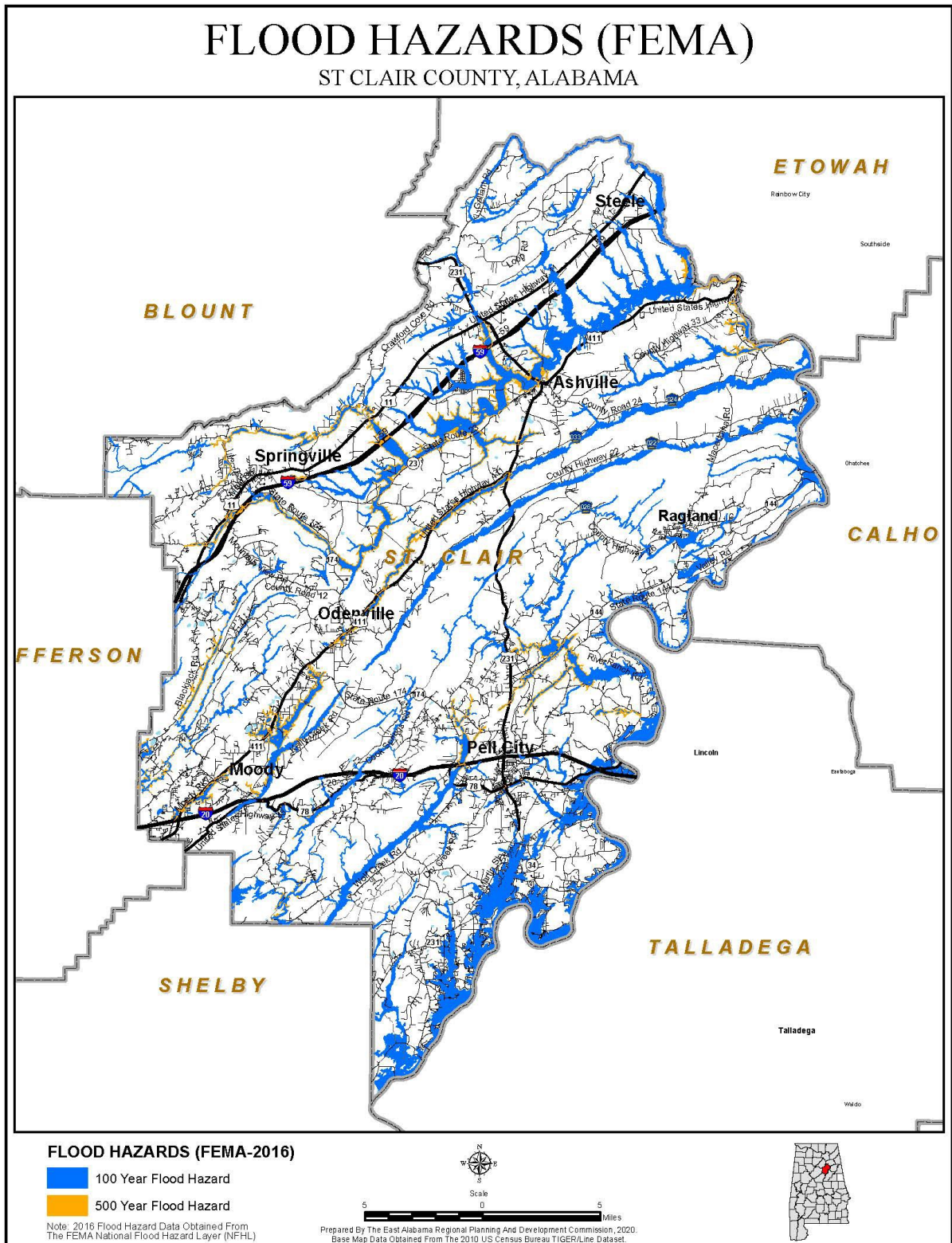


Figure 4.10: Argo Flood Hazard Areas

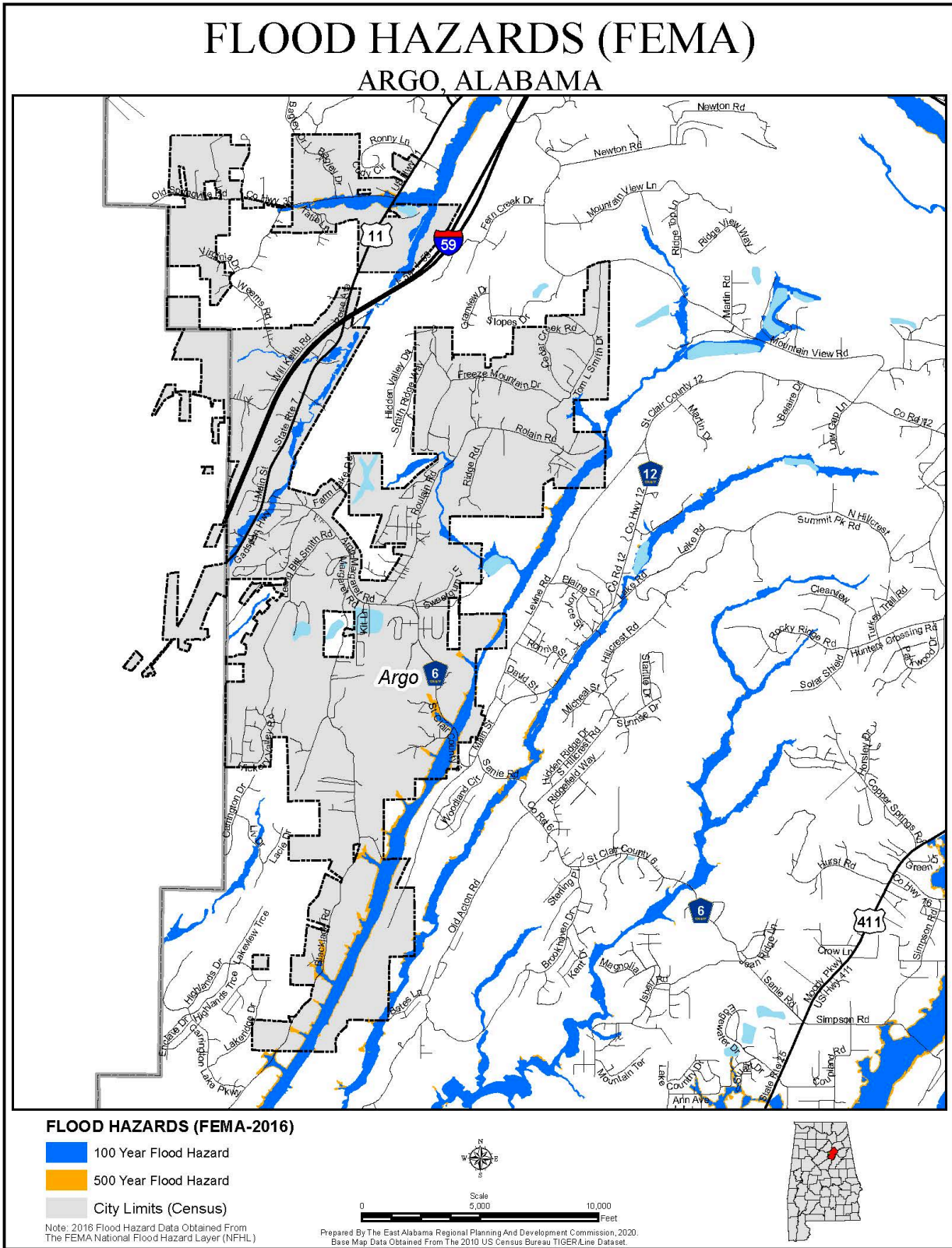


Figure 4.11: Ashville Flood Hazard Areas

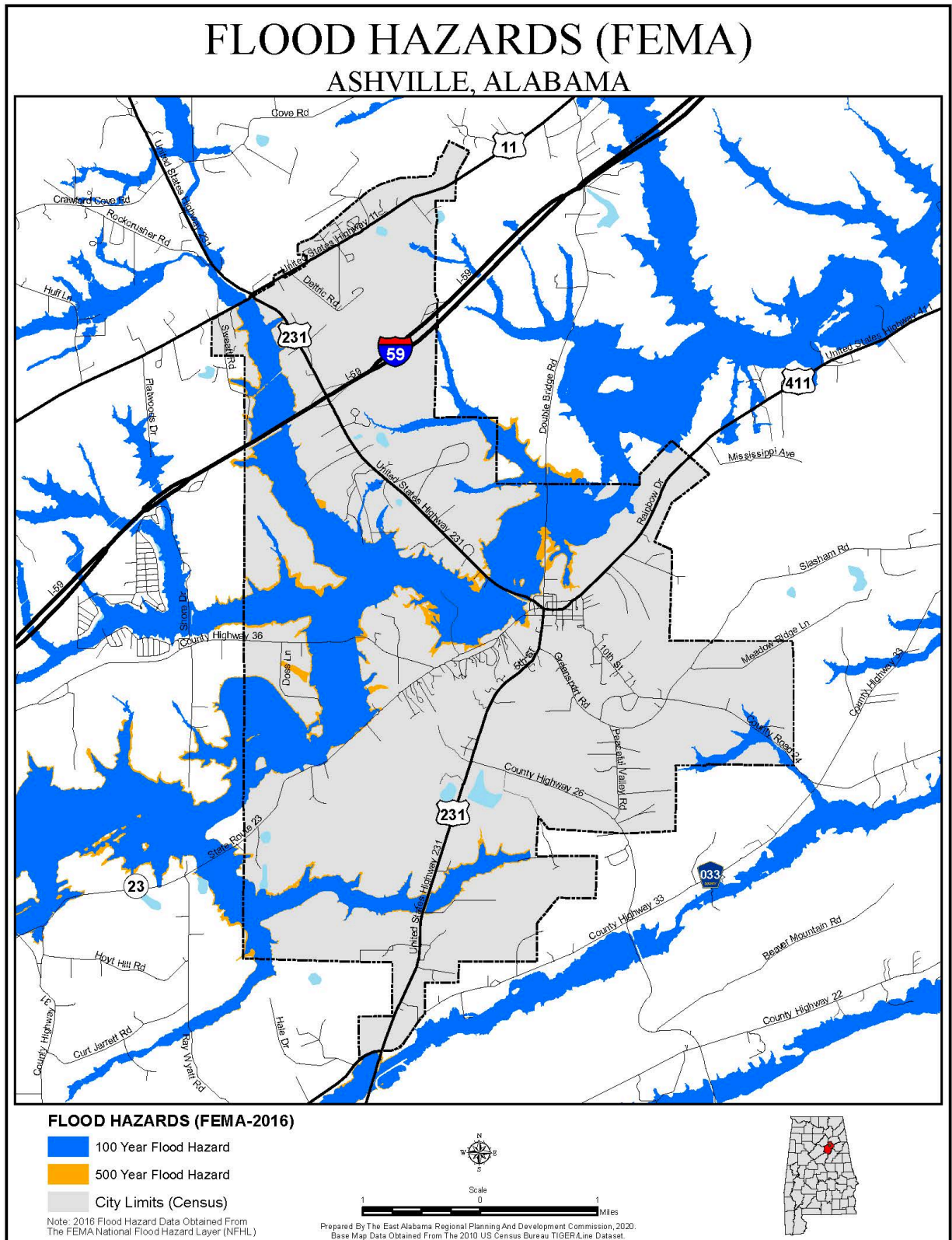


Figure 4.12: Margaret Flood Hazard Areas

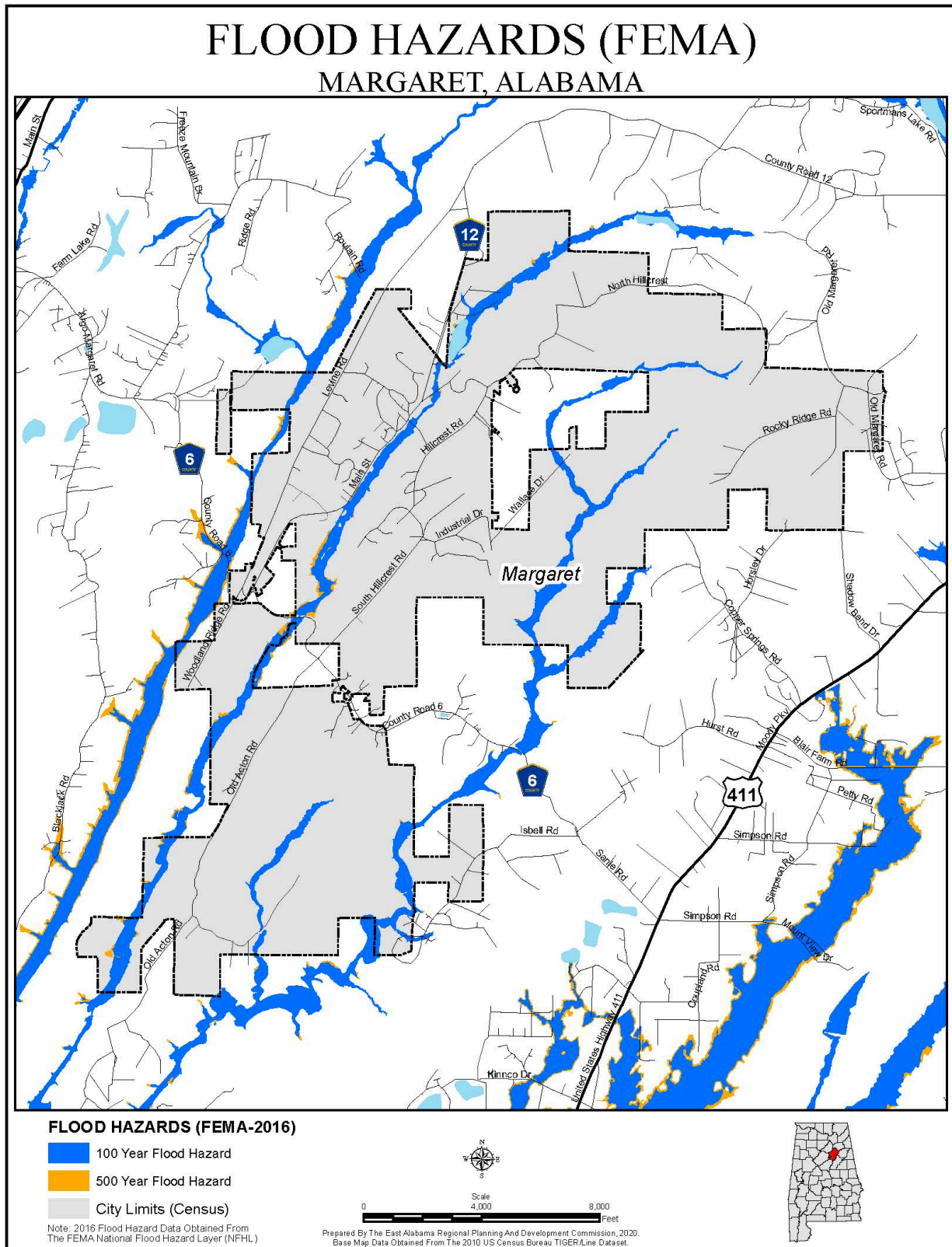


Figure 4.13: Moody Flood Hazard Areas

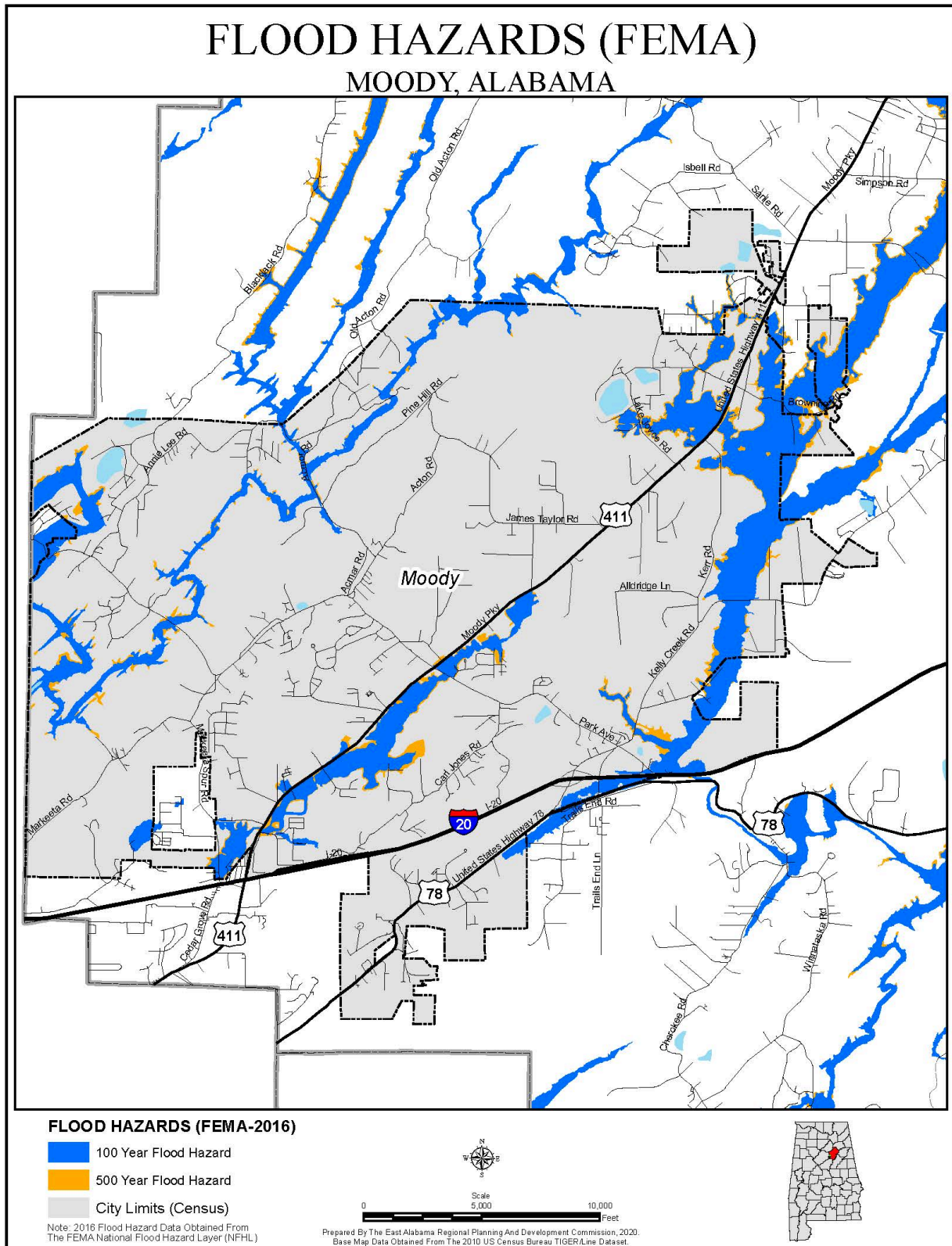


Figure 4.14: Odenville Flood Hazard Areas

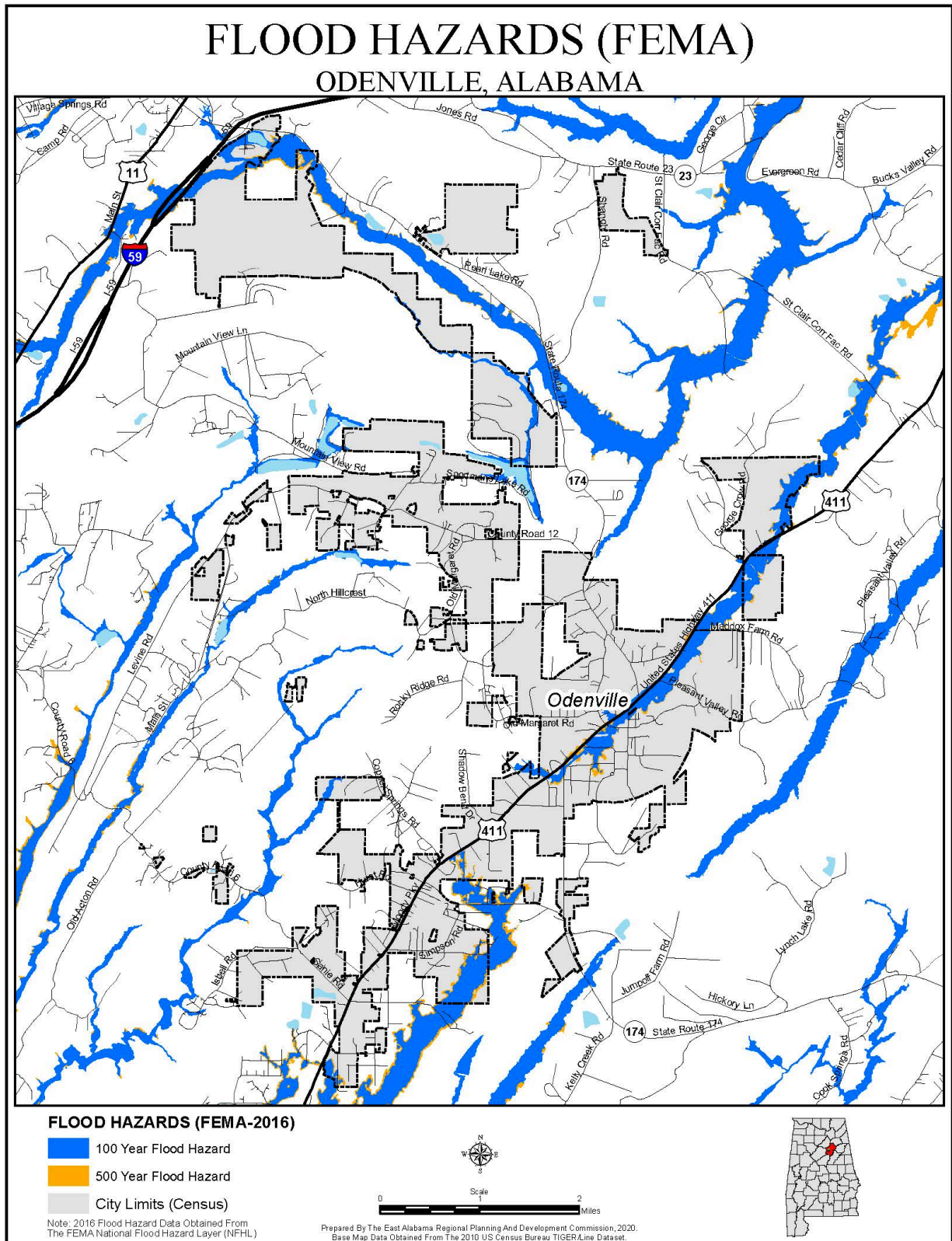


Figure 4.15: Pell City Flood Hazard Areas

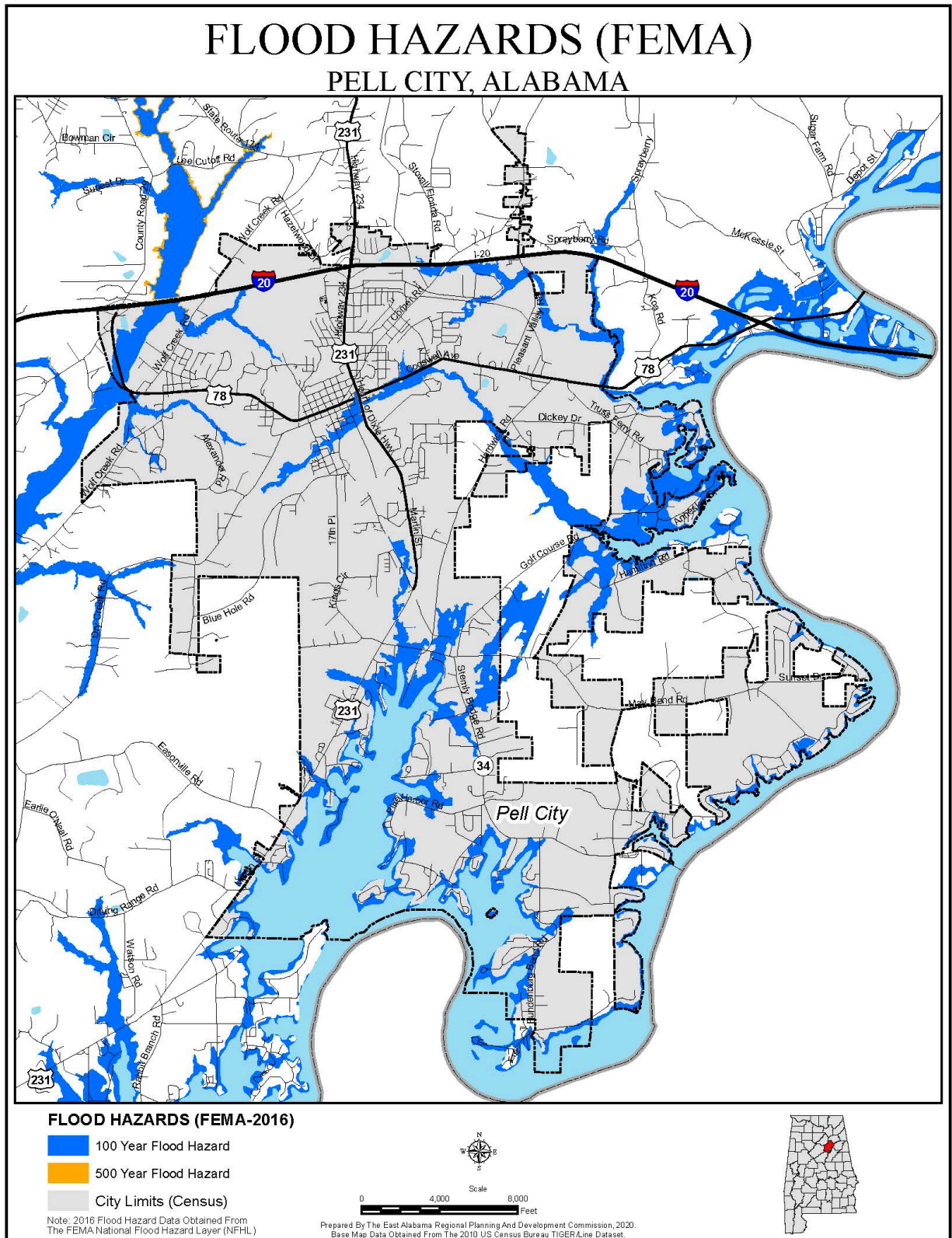


Figure 4.16: Ragland Flood Hazard Areas

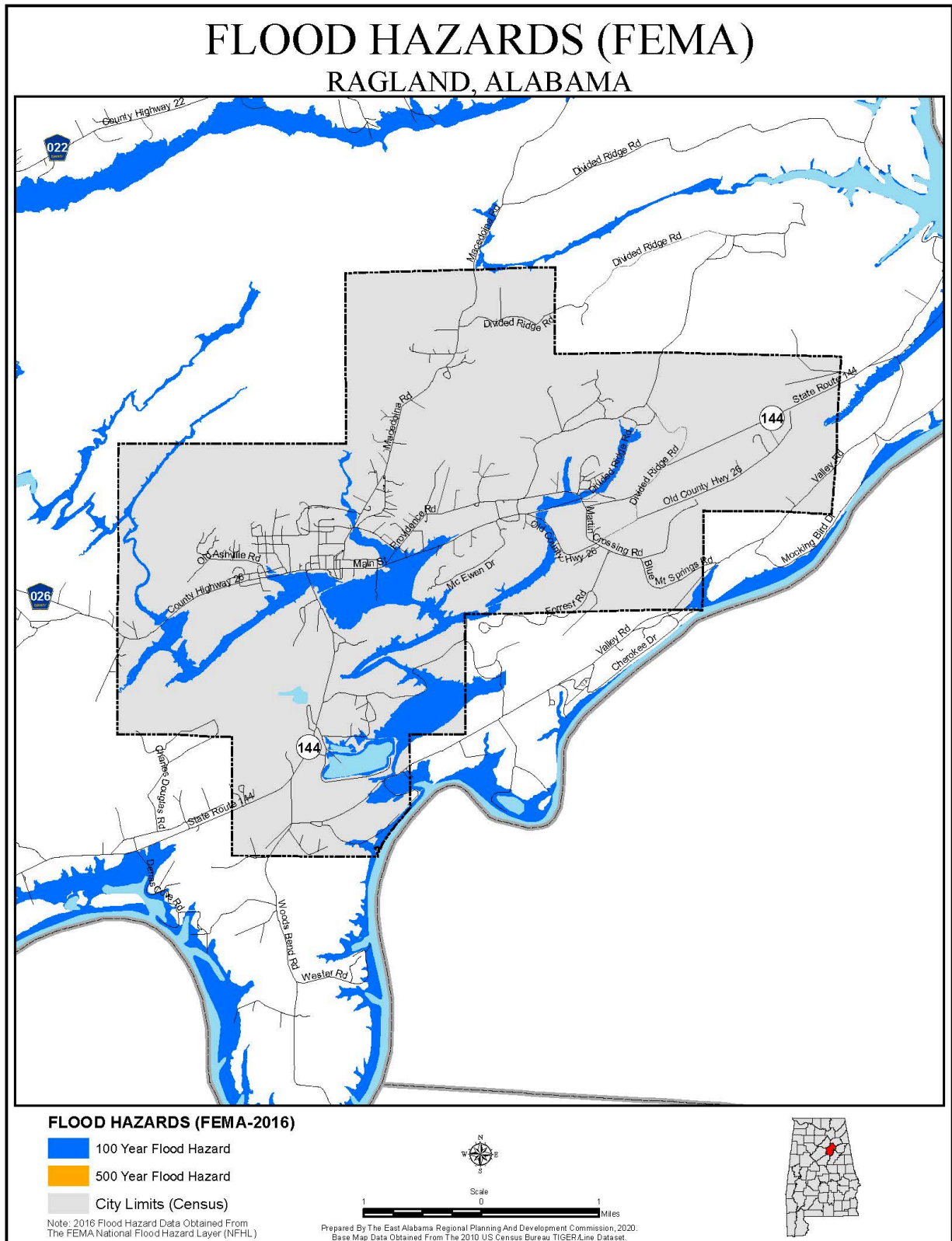


Figure 4.17: Riverside Flood Hazard Areas

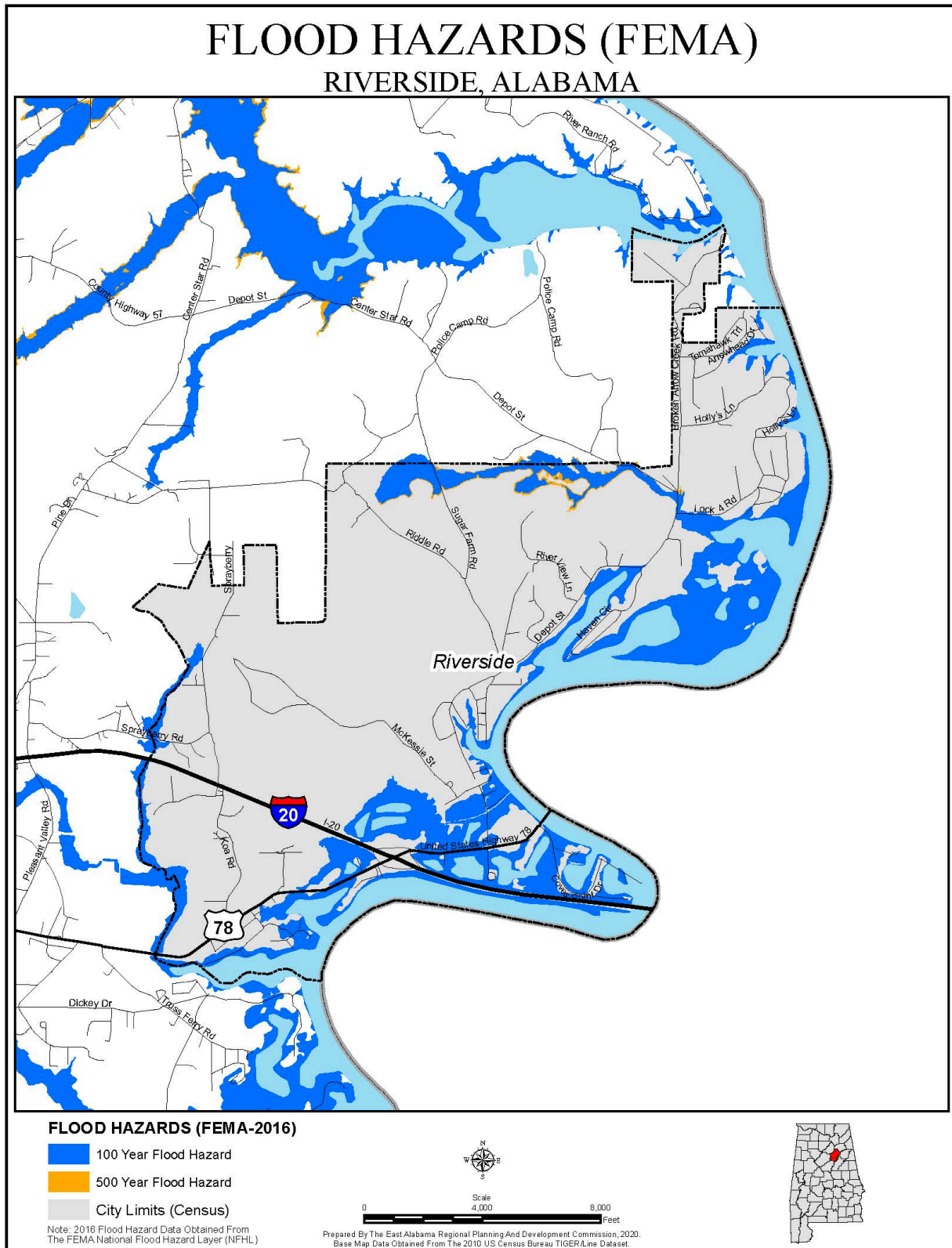


Figure 4.18: Springville Flood Hazard Areas

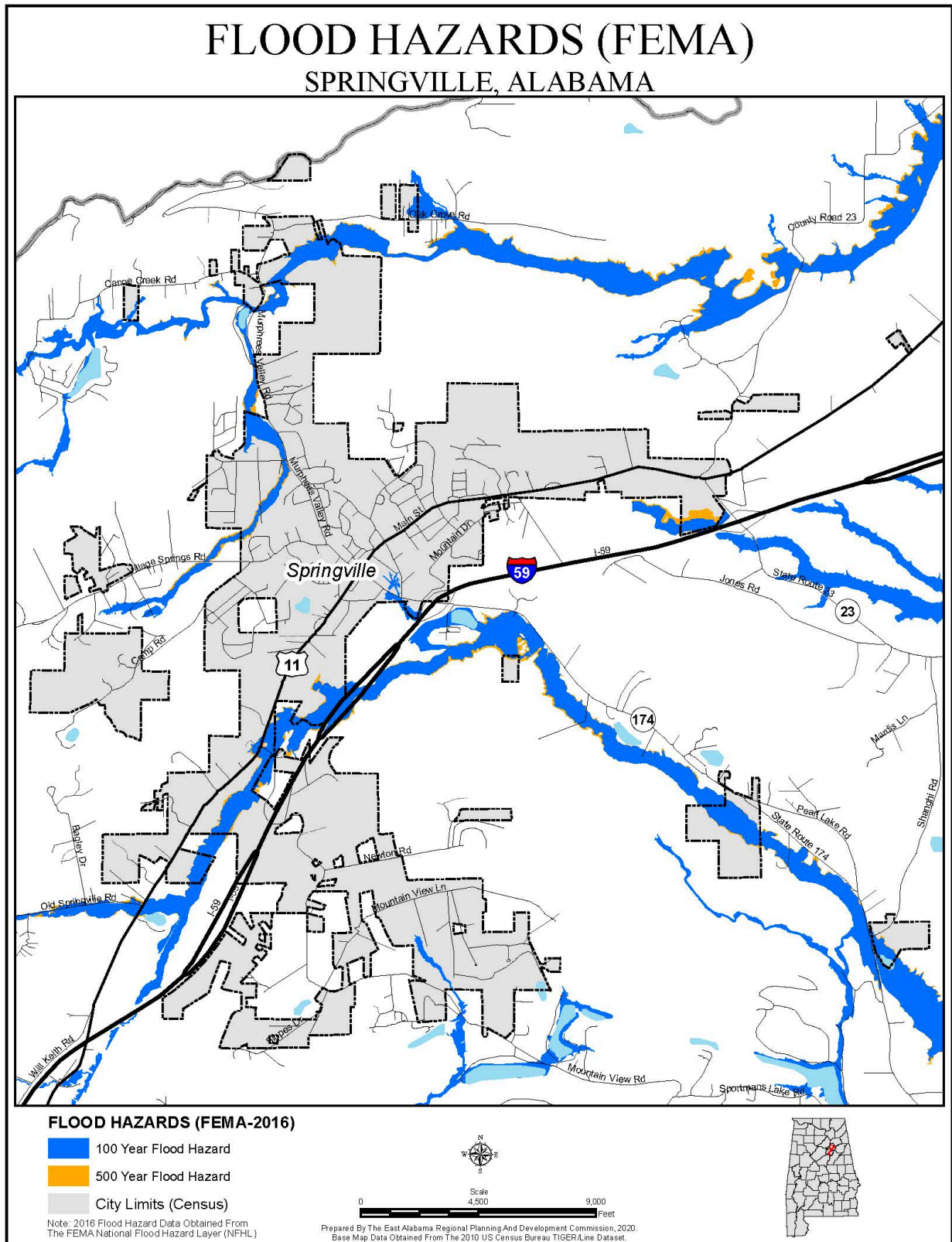
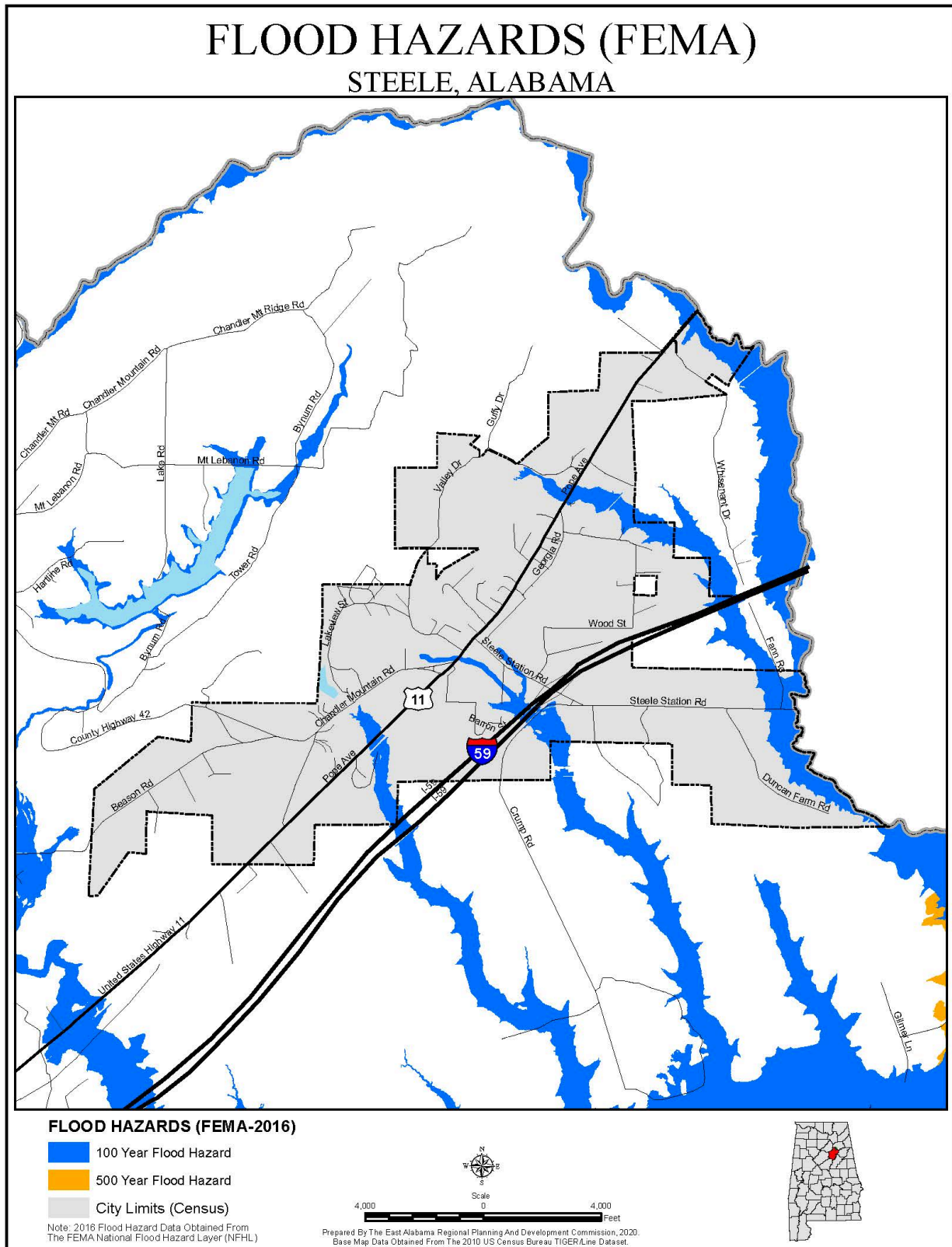


Figure 4.19: Steele Flood Hazard Areas



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 Tallapoosa River at Wadley has recorded a flood crest at approximately 38 feet (in 2003), which is 13 feet above flood stage. The Coosa River at Lake Logan Martin has recorded a flood crest of 472.12 feet (in May 2003), which is 7 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. Table 4.7 shows flood depths by jurisdiction. Randolph County does not have depth grids available. Information provided for Randolph County is the best available and was gathered using the NCDC Storm Events Database. The Town of Woodland is not prone to flooding and has no flood or flash flood events recorded in the storm events database.

Table 4.7: Flooding Depths by Jurisdiction

Jurisdiction	Flooding
St. Clair County	Flooding to depths from 1 ±16 feet affecting agricultural lands, persons, structures, and infrastructure
City of Argo	Localized flooding to depths from 1 ±16 feet with potential impact on persons, structures, and infrastructure
City of Ashville	Flooding to depths from 1 ±16 feet affecting agricultural lands, persons, structures, and infrastructure
City of Margaret	Flooding to depths from 1-16 feet affecting agricultural lands, persons, structures, and infrastructure
City of Moody	Flooding to depths from 1 ±16 feet affecting agricultural lands, persons, structures, and infrastructure
City of Odenville	Localized flooding to depths from 1-16 feet with potential impact on persons, structures, and infrastructure
City of Pell City	Flooding to depths from 1 ±16 feet affecting persons, structures, and infrastructure
Town of Ragland	Flooding to depths from 1 ±16 feet affecting agricultural lands, persons, structures, and infrastructure
Town of Riverside	Flooding to depths from 1 ±16 feet affecting agricultural lands, persons, structures, and infrastructure

City of Springville	Localized flooding to depths from 1-16 feet with potential impact on persons, structures, and infrastructure
Town of Steele	Flooding to depths from 1-16 feet affecting agricultural lands, persons, structures, and infrastructure
Randolph County	Several roads and bridges have been flooded due to events. Jurisdiction depths represent potential depths for the county below.
City of Roanoke	6/4/10- Several homes in the area got up to 3 feet of water in them
Town of Wadley	5/8/03- A crest of approximately 38 feet occurred on Tallapoosa River. A small market on the west side of Wadley on SR 22 had 3 feet of water inside
Town of Wedowee	04/04/2014- Water as deep as two feet was reported in Wedowee, mainly along 5th St and 1st Ave, where two manufactured homes were evacuated due to rising water.
Town of Woodland	No events in the storm database.

Source: Alabama Flood Map Website; NCDC Storm Events Database (2020)

Historical Occurrences

Information from the National Climatic Data Center reports a total of 47 flood and flash flood events since 2000 within Randolph and St. Clair Counties. Major events have occurred from riverine and flash flooding. Large regional events in the past two decades are summarized below. Additional information on flood vulnerability and flood events can be found in Section 4.11.

On September 22, 2002, very heavy rain fell across central Alabama during the early morning hours. The heaviest rain was measured generally from Tuscaloosa to Birmingham to Wedowee. Radar-estimated rainfall amounts averaged from 3 to 5 inches with many localized areas over 7 inches in only a few hours. The hardest hit area was the Birmingham Metropolitan area where the damage stretched from Bessemer to Pelham to Mountain Brook to Vestavia Hills. The following events were reported: numerous high water rescues were performed by area fire departments, one junior high school sustained major damage, one home was totally destroyed, 100 homes suffered varying degrees of damage, 22 apartments were flooded, one bowling alley sustained major damage, at least 20 businesses were damaged, a few bridges were washed out, a few culvert pipes were washed away, trees and power lines fell down due to the saturated ground, numerous roads were temporarily closed and impassable, and over 200 automobiles suffered significant damage in Vestavia Hills. No injuries were reported, but \$200,000 and \$20,000 in property damages were reported in Randolph and St. Clair Counties, respectively. Some 24-hour rainfall totals in inches include: 10.96 at Logan Martin Dam, 8.19 in Vincent, and 5.60 in Alabaster.

May 5-8, 2003 saw the entire planning area impacted by significant flooding and flash flooding. Details from the occurrences in each county are discussed below.

From May 7-8, 2003, a flood in Randolph County resulted in \$300,000 of property damage. This event caused the Tallapoosa River to have a 100-year flood event. The historic flooding came after an estimated 10 inches of rain fell across a large portion of the Tallapoosa River

basin. A number of buildings were flooded in and around Wadley, as well as farm equipment caught in areas near the river. In June 2010, a flash flood in Randolph County resulted in \$115,000 of property damage. Slow moving thunderstorms in a very moist environment produced flooding in several locations across Central Alabama. Significant flooding was reported around the City of Roanoke. Several streets became impassable with a foot or more of water flowing over them, and numerous homes were flooded.

On May 7-8, 2003, numerous roads were flooded and temporarily closed due to high water. Especially hard hit was Pell City where the City Hall was flooded, and power was out for over 24 hours. Several homes were destroyed by the flooding. Numerous swift water rescues were performed in the Cook Springs and Prescott areas. Several stores were flooded in Moody along Moody Parkway. Many municipal buildings in Moody were also flooded. Several businesses were flooded in Springville and Odenville. Several cattle were killed by a lightning strike during the storms. Also, at least 7,000 customers were without power for several hours as the storms repeatedly moved through the area. One million dollars of property damages was reported.

On November 24, 2004, several roads were reported covered with water and were temporarily impassable in St. Clair County. Several area streams and creeks rose above the banks. Doppler radar estimated widespread rain amounts of 4 to 5 inches with a few spots approaching 12 inches. A potential dam break situation developed in the afternoon. The dam eventually failed near the Friendship Community resulting in significant damage. Runoff from these storms lasted for several hours after the heaviest rains ended. A 73-year-old man died when his car was swept away in the high water near Pinedale Road. An estimated \$400,000 in property damages were caused by this flash flood event.

On May 16, 2009, slow moving thunderstorms produced flash flooding in Randolph County. Several roads in and near the city of Roanoke were closed due to flash flooding. These roads included Chestnut Road, Louina Road, and CR-45 near Rockstand Road. County Road 41, near the Corinth Community, had four feet of water rushing across it. Impacts were also felt in the Rock Mills area. This event caused \$50,000 in property damages.

On September 17, 2009, a slow-moving upper level disturbance helped spark several days of thunderstorms across Central Alabama. The storms were slow moving, and produced very heavy rainfall in some locations, which led to flash flooding. Flooding, described as major, was reported in Argo, in St. Clair County, with almost a foot of water into some businesses on Main Street. Margaret was also reportedly impacted by this event. \$50,000 in property damages were reported.

On January 24, 2010, a cold front pushing through the region caused rain and thunderstorms across Central Alabama. A few of the storms produced large hail and damaging winds, as well as locally heavy rainfall that led to flooding. Widespread flooding was reported around the city of Wedowee, and several roads had to be closed for several hours due to high water. \$25,000 in property damages were reported.

In June 2010, a flash flood in Randolph County resulted in \$115,000 of property damage. Slow moving thunderstorms in a very moist environment produced flooding in several locations

across Central Alabama. Significant flooding was reported around the City of Roanoke. Several streets became impassable with a foot or more of water flowing over them, and numerous homes were flooded. The hardest hit area was along AL-22, near Midway Full Gospel Church. At least one unoccupied vehicle was carried about 400 feet down a flood swollen creek, and an additional vehicle in the same area was submerged for a time. One person had to be rescued from her trailer after flood waters surrounded it.

On May 18, 2015, over four inches of rainfall led to road closures and damage in northern Randolph County. Portions of old U. S. Highway 431 near Pineywood Creek and County Road 92 were impassable. A portion of County Road 9 near Lofty was washed away with repairs estimated at \$100,000.

Probability of Future Events

Flooding events of varying extent will remain a constant threat for Randolph and St. Clair Counties. 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).

St. Clair County has received a disparate impact of damage from historical floods, as it has several repetitive loss properties, as can be seen by data in Section 4.9 in Table 4.23 (Repetitive Loss Properties). Randolph County has no repetitive loss properties.

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 impacted jurisdictions such as Wadley and Pell City, and 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

Randolph and St. Clair Counties are 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 area of Randolph and St. Clair Counties is not directly affected by storm surges due to the occurrence of sustained high winds from hurricanes and other tropical events. The planning area has a low susceptibility to a direct hit from a hurricane due to its location 300 miles inland from the Alabama coastline. However, effects like heavy rain, flooding, winds, and tornadoes provoked by hurricanes often have significant impacts on 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 4.8.

Table 4.8: 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 Hurricane Center-NOAA (2020)

Hurricanes as intense as Category 5 have made landfall along the Alabama Gulf Coast region. Historically, hurricanes have not had a direct impact on the planning area due to its inland location; however, the region is often impacted with effects initiated by hurricane landfall.

Historical Occurrences

Hurricanes, tropical storms, tropical depressions, and high winds resulted from Dennis, Katrina, Ida, Fay, and Ivan have affected Randolph and St. Clair Counties with the most significant impacts associated with excessive rainfall, damaging winds, flooding, and tornadoes. Effects, which generally impact the entire planning area, have included loss of power, damage to homes, blocked roadways from associated storm debris, and loss of other crucial utilities.

Hurricane Dennis made landfall on July 10, 2005 at the Santa Rosa Sound in Florida, approximately 25 miles from the Florida-Alabama state line. Several trees and power lines were knocked down in association with this storm, causing at least one structural fire due to the downed power lines. Resulting property damages in Randolph County were \$47,000. At this time, St. Clair County had already received significant rainfall from Tropical Storm Arlene and Hurricane Cindy. Because St. Clair County was on the western side of the eye of Dennis, as much as 10 inches of rain fell in some areas causing flash flooding in inland counties. A few roadways were temporarily impassable due to fallen trees. A least 1500 county customers were without power for

several hours.

In August 2005, the remnants of Hurricane Katrina moved northward along the Alabama/Mississippi state line. Katrina was still a strong tropical storm as the center passed just west of North Alabama during the evening hours of August 29, 2005. Areawide, a few trees and powerlines were blown down, resulting in property damages of \$15,000 in Randolph County and \$100,000 in St. Clair County.

On November 9-11, 2009, the remnants of what was once Hurricane Ida, but had weakened into a Tropical Depression, brought very heavy rain and gusty winds to a large portion of Central Alabama. Sustained winds maxed out between 20 and 30 mph, with peak wind gusts generally between 30 and 40 mph. These winds blew down a few trees around the area, especially shallow rooted trees where saturated soil likely played a significant role. Property damages of \$2,000 resulted from Tropical Depression Ida in Randolph County.

On August 23-25, 2008, Tropical Storm Fay, and its remnants after landfall, brought high winds, heavy rain, and numerous tornadoes to Central Alabama. No injuries, fatalities, property, or crop damages were reported in Randolph County.

On September 26, 2004, Randolph County experienced high winds with maximum reported wind gusts up to 65 miles per hour as a result of Hurricane Ivan. Hundreds of trees and power lines were downed across the county. Doppler radar and ground observations indicate as much as 5 inches of rain, and Randolph County reported \$125,000 in property damages.

On April 13, 2009, Randolph County experienced strong winds as an intense atmospheric gravity wave brought a period of high winds to central Alabama. As the wave moved through, it produced a 1 to 2-hour long period of strong winds, with frequent gusts above 30 mph, and peak gusts averaging 40 to 50 mph. A larger number of trees were blown down than may usually be expected from these wind speeds, since many trees were weakened by a recent drought, and because the gusty winds lasted up to 2 hours. The downed trees caused numerous power outages, and as many as 165,000 customers lost power during the storm. A wind gust up to 43 mph was recorded at the EMA office. Several trees were also downed across the county, at least one of which landed on a house. Randolph County reported \$25,000 in property damages.

Probability of Future Events

Direct hits from hurricanes and other tropical events with high winds are not a threat for Randolph and St. Clair Counties, due to their distance from the Gulf Coast. However, impacts associated with hurricanes often affect the planning area. Therefore, the probability of future hurricane events is Medium.

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 Randolph and St. Clair 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 4.9). 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 two (2) instances of F/EF-4 tornadoes in recorded history.

Table 4.9: 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.

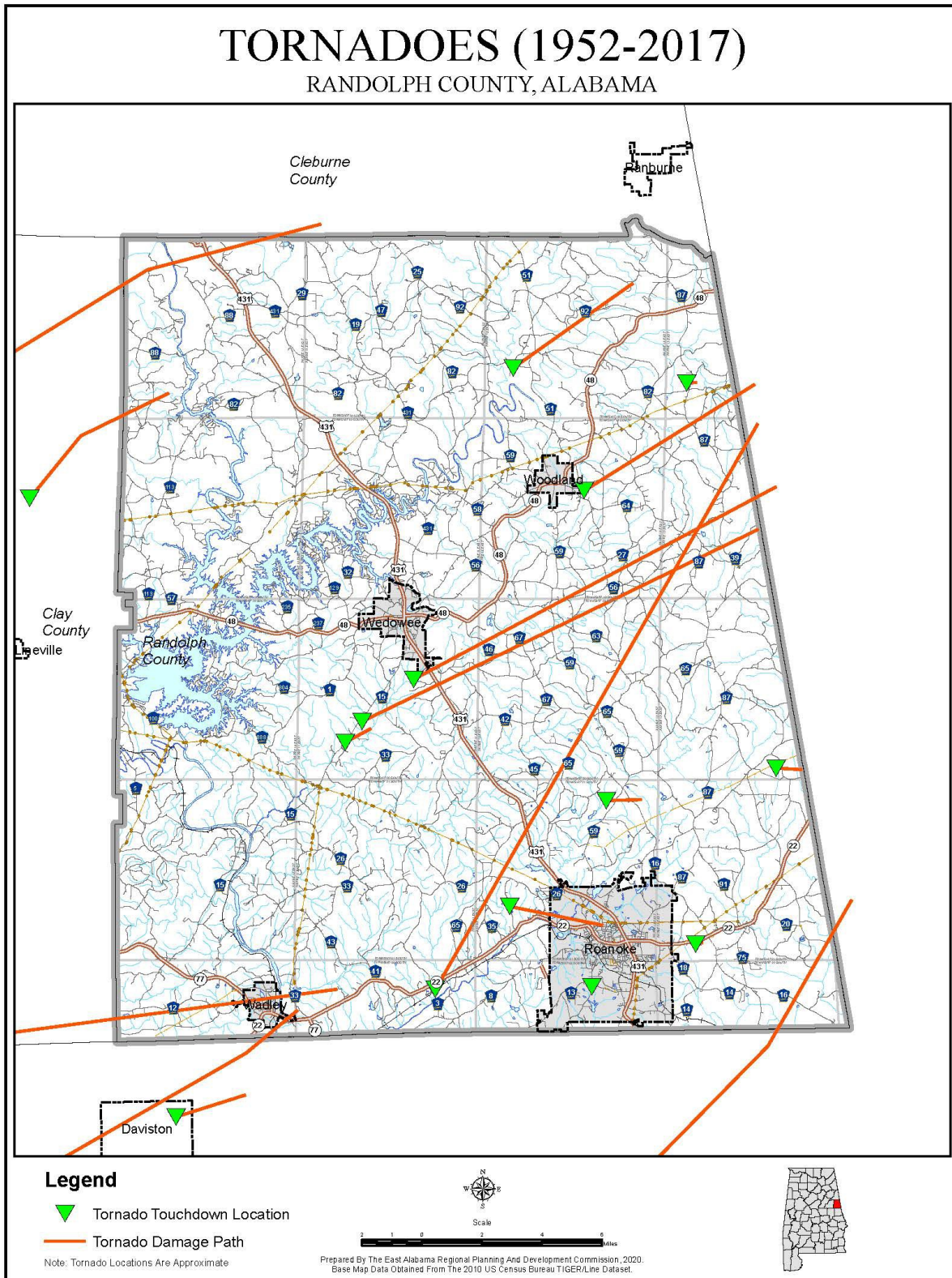
Source: National Weather Service (2020)

Historical Occurrences

According to the NOAA Storm Events Database, since 1950 there have been a total of 59 documented tornado events in the planning area, resulting in 40 fatalities, 286 injuries, and over \$243 million in estimated property damage.

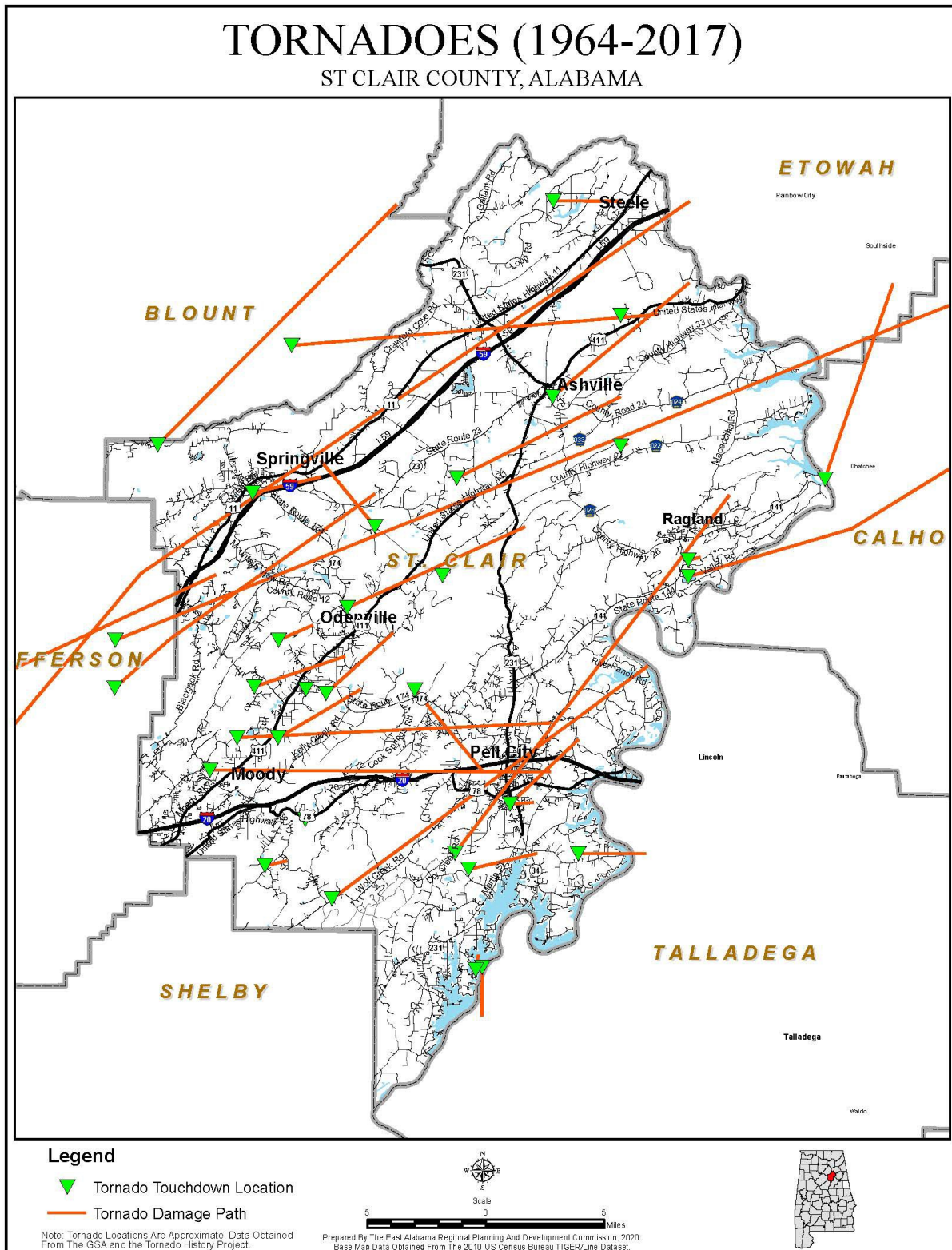
Almost 67% of documented tornadoes have been classified as F0/EF0 or F1/EF1, with 24% classified as F2/EF2, 7% classified as F3/EF3, and 3% classified as F4/EF4. There have never been any documented tornadoes classified as F5/EF5 in the region (Table 4.10). Figures 4.20 and 4.21 show historical tornadoes tracks through Randolph and St. Clair Counties.

Figure 4.20: Randolph County Historical Tornado Tracks



Source: U.S. Census Bureau; EARPDC (2020)

Figure 4.21: St. Clair County Historical Tornado Tracks



Source: U.S. Census Bureau; EARPDC (2020)

Table 4.10 Annual Tornado Summary – Randolph and St. Clair Counties

Year	Tornadoes	Fatalities	Injuries	Damages	F0/EF0	F1/EF1	F2/EF2	F3/EF3	F4/EF4	F5/EF5
1964	1	0	0	\$25,000		1				
1965	1	0	0	\$25,000			1			
1967	1	0	0	\$25,000			1			
1970	1	0	2	\$25,000			1			
1971	1	0	0	\$25,000	1					
1973	3	0	0	\$25,500,000		1	1	1		
1974	1	1	7	\$250,000				1		
1975	1	1	60	\$2,500,000				1		
1976	1	0	0	\$2,500	1					
1977	3	1	0	\$750,000			2	1		
1984	3	0	0	\$525,000		2	1			
1985	1	0	0	\$25,000		1				
1989	2	0	0	\$2,525,000	1		1			
1990	1	0	11	\$2,500,000		1				
1992	1	0	5	\$2,500,000		1				
1994	2	22	150	\$1,000,000	1				1	
1998	1	2	12	\$2,000,000			1			
2000	2	0	2	\$180,000	1		1			
2001	3	0	2	\$850,000		1	2			
2002	2	0	0	\$41,000	1	1				
2003	3	0	0	\$175,000	1	2				
2004	1	0	0	\$75,000	1					
2005	2	0	0	\$78,000		2				
2008	4	0	0	\$452,000		4				
2009	4	0	0	\$190,000		4				
2011	3	13	35	\$200,890,000	1		1		1	
2012	1	0	0	\$0		1				
2014	2	0	0	\$0	2					
2017	2	0	0	\$0	1	1				
2018	2	0	0	\$0		1	1			
2019	3	0	0	\$0	3					

Source: NOAA Storm Events Database; National Weather Service Birmingham, Alabama Tornado Database (2020)

Probability of Future Events

Since 1964, Randolph and St. Clair Counties have averaged approximately two (2) 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 is 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 each 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 Randolph and St. Clair Counties 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 152 instances of documented damages in the planning area between 2010 and 2020 causing 2 (two) deaths, 1 (one) injury, and approximately \$90,000 worth of damage.

According to the National Climatic Data Center (NCDC), there have been 45 recorded hail events on 19 days since 2010. NCDC does not make clear how much these events caused in property damage.

The NCDC has also recorded 2 lightning events with documented negative impacts, causing an estimated \$12,000 in property damage from 2010 through 2020.

For straight-line winds, the NCDC has recorded one high wind event with an estimated \$5,000 in property damage since 2010 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 Randolph and St. Clair Counties 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 4.22). 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 is estimated to be primarily isolated damages to structures and infrastructure. Historic information is not available on the extent of landslides in the planning area.

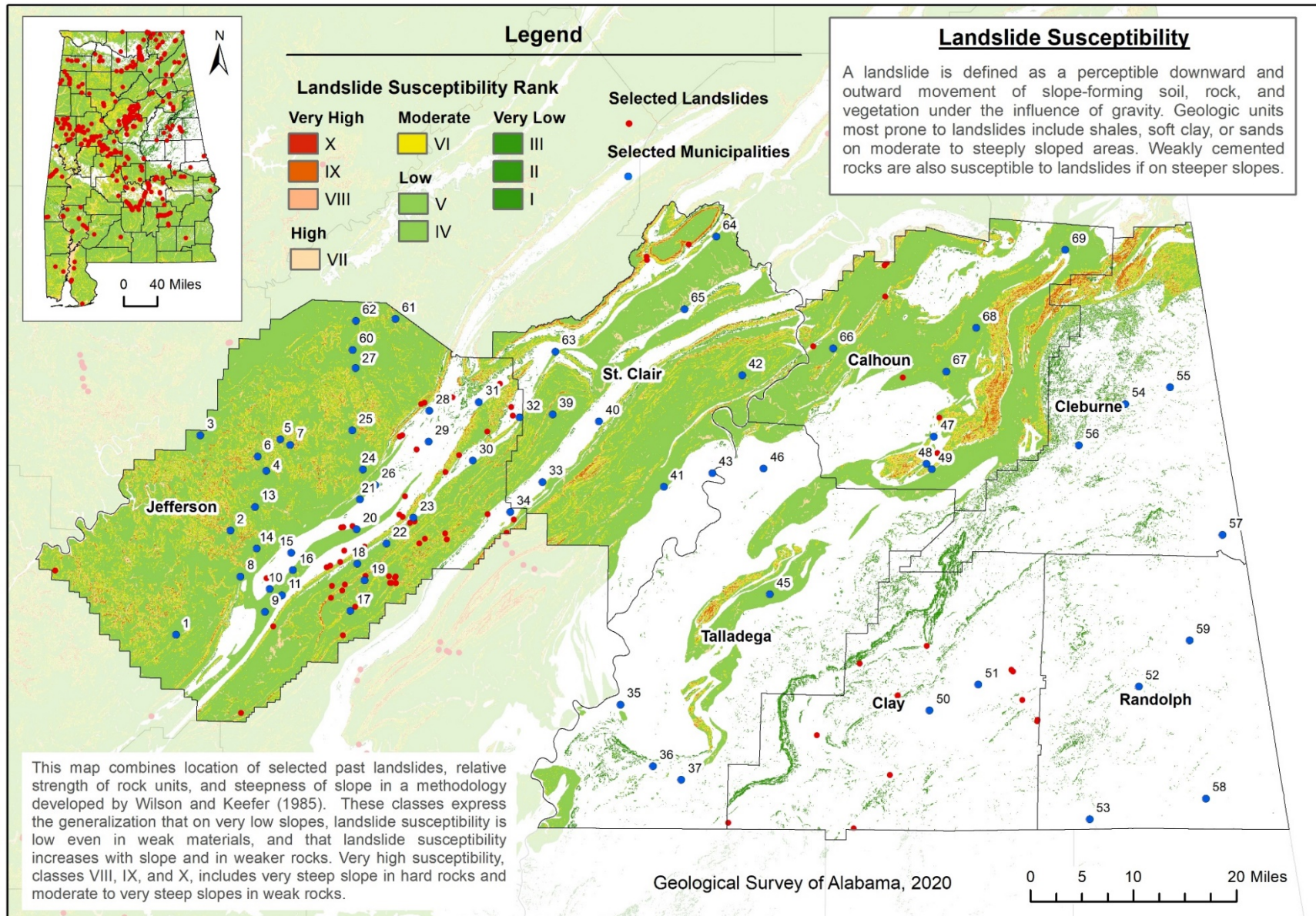
Historical Occurrences

The GSA has a map that displays historical landslides (Figure 4.22). Labels for jurisdictional locations can be found below in Table 4.11. 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, St. Clair County is shown to have had three (3) 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 4.22: AEMA Division G Landslide Susceptibility



Source: Geological Survey of Alabama (2020)

Table 4.11: Jurisdiction Labels for Figures 4.22 and 4.23

Jurisdiction	Label Number	Jurisdiction	Label Number
North Johns	1	Ragland	42
Sylvan Springs	2	Riverside	43
West Jefferson	3	Talladega	45
Adamsville	4	Lincoln	46
Cardiff	5	Anniston	47
Graysville	6	Hobson City	48
Brookside	7	Oxford	49
Hueytown	8	Ashland	50
Bessemer	9	Lineville	51
Brighton	10	Wedowee	52
Lipscomb	11	Wadley	53
Maytown	12	Edwardsville	54
Mulga	13	Fruithurst	55
Pleasant Grove	14	Heflin	56
Fairfield	15	Ranburne	57
Midfield	16	Roanoke	58
Hoover	17	Woodland	59
Homewood	18	Kimberly	60
Vestavia Hills	19	Trafford	61
Birmingham	20	Warrior	62
Mountain	22	Springville	63
Irondale	23	Steele	64
Fultondale	24	Ashville	65
Gardendale	25	Ohatchee	66
Tarrant City	26	Weaver	67
Morris	27	Jacksonville	68
Pinson	28	Piedmont	69
Center Point	29	Piedmont	69
Trussville	30		
Clay	31		
Argo	32		
Moody	33		
Leeds	34		
Childersburg	35		
Oak Grove	36		
Sylacauga	37		
Margaret	39		
Odenville	40		
Pell City	41		

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.

Locations Affected

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. Randolph County has low susceptibility, and no documented sinkholes. St. Clair County has wide swatches of area with medium to high susceptibility and has experienced a few sinkholes. Therefore, the planning area is at a slight risk for sinkhole events.

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 is estimated to be primarily isolated damages to structures and infrastructure. Historic information is not available on the extent of sinkholes in the planning area.

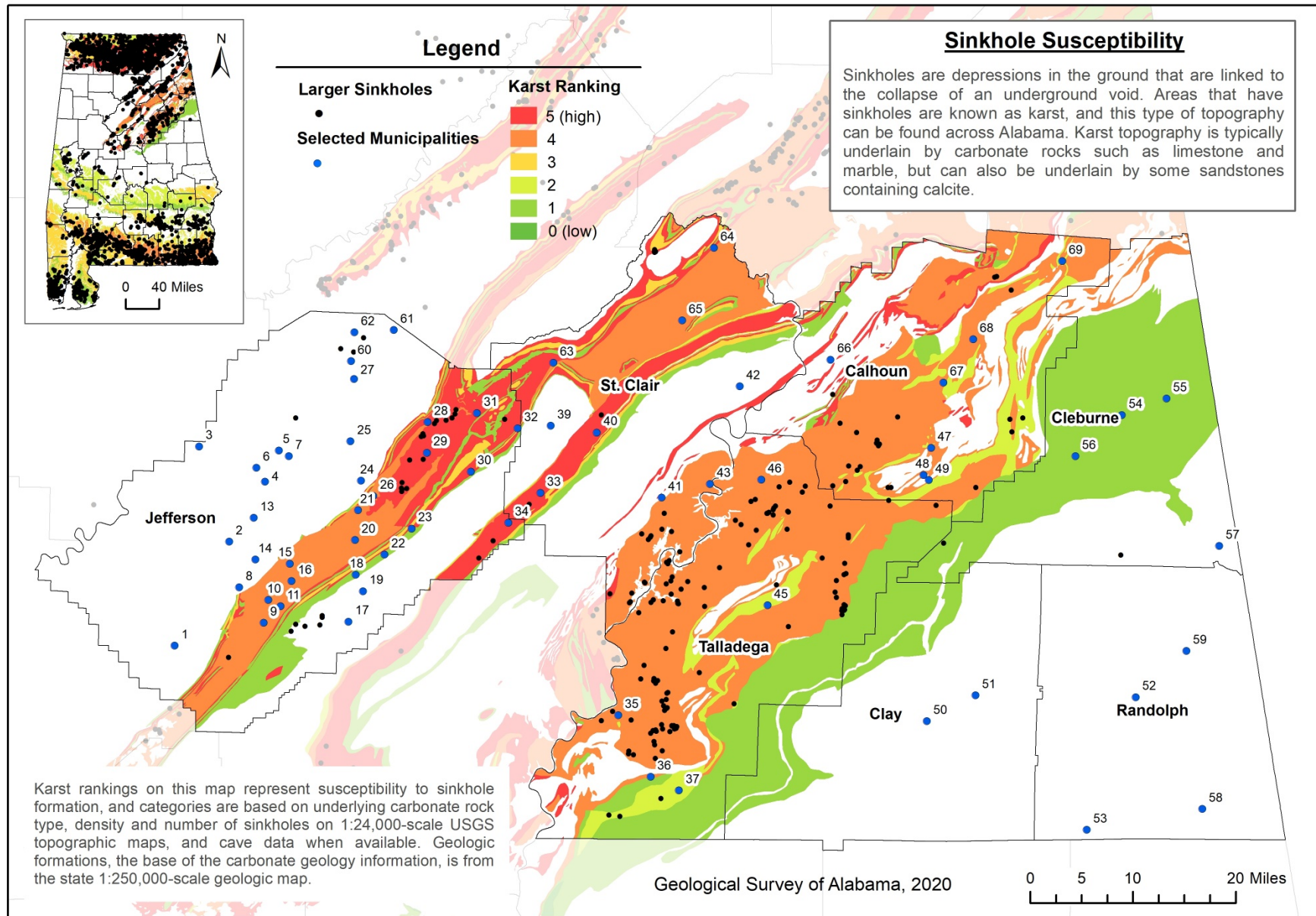
Historical Occurrences

The GSA displays sinkhole susceptibility, karst rankings, and past incidences of sinkholes in the planning area. (Figure 4.23). Labels for jurisdictional locations can be found above in Table 4.11. 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. According to Figure 4.23, St. Clair County has had three (3) past incidences of sinkholes, with the karst ranking ranging from low to high across the planning area.

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 4.23: AEMA Division G Sinkhole Susceptibility and Karst Ranking



Source: Geological Survey of Alabama (2020)

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. They often begin unnoticed, spread quickly, and are usually signaled by dense smoke that may fill the area for miles around. Wildfires can be human caused through acts such as arson or campfires or can be caused by natural events such as lightning. Fuel sources, such as trees and grass, and weather, such as dry periods or lightning strikes, can contribute to wildfires in Randolph and St. Clair Counties.

Locations Affected

Many wild land fires occur on privately owned lands. Additionally, most of the fires occur in areas where homes or structures are endangered. These areas are known as the wildland-urban interface and are defined as areas where development meets wild land vegetation, both of which provide fuel for fires. The wild land urban interface areas have increased significantly throughout the planning area, and now face the risk of major losses from wildfires. Figure 4.24 shows the wildland-urban interface risk areas in the planning area, communicating vulnerability to wildfires. Randolph and St. Clair counties show a significant amount of WUI areas.

Extent

The magnitude of wildfire events is 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. As population and development increases in higher growth areas, 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. Figure 4.25 shows the fire intensity scale map for the planning area. According to the Alabama Forestry Commission, the fire intensity scale identifies areas of significant fire behavior potential influenced by fuel hazards, high to extreme weather conditions, and topography.

Wildfires in the planning area generally are moderate in intensity, resulting in destruction of undergrowth and some timber. The soil surface layer of the forest recovers quickly, minimizing erosion and water quality impacts. The entire area is vulnerable to wildfires. The frequency and severity of wildfires is dependent on weather and on human activity. Nearly all wildfires in Randolph and St. Clair Counties are human caused (only a small percent are caused by lightning), with arson and careless debris burning being the major causes of wildfires.

Historical Occurrences

Information is limited on historical wildfires in the planning area. There have been no recorded wildfires in the National Climatic Data Center's (NCDC) Storm Events Database. According to the Alabama Forestry Commission, from 2010 to 2020 Randolph County experienced 261 wildfires over 2,079.96 acres, and St. Clair County experienced 241

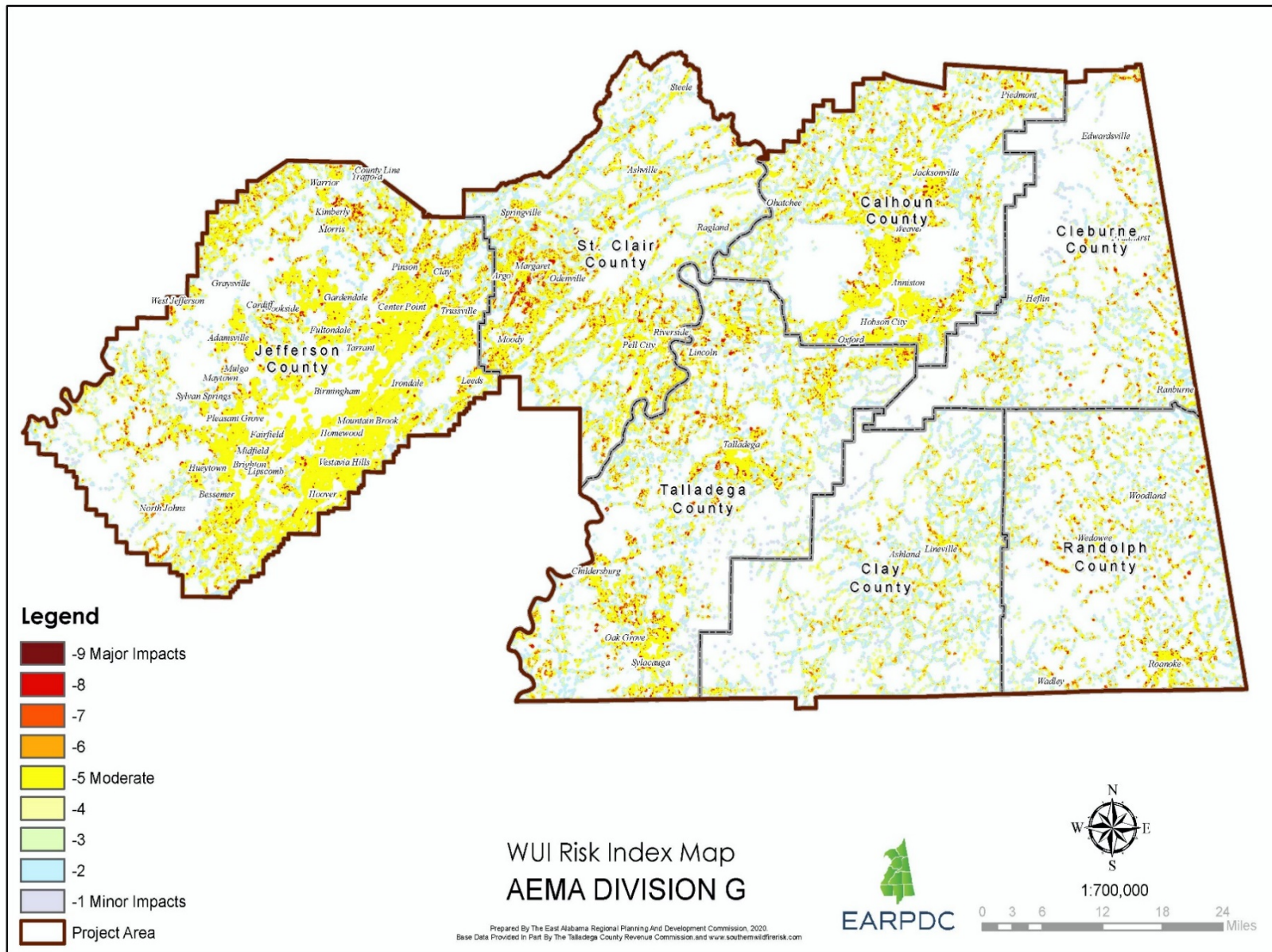
wildfires over 4,494.85 acres. Randolph County’s 250-acre fire on March 21, 2011, and St. Clair’s 395.90-acre fire on November 11, 2016 are the largest to affect the planning area since 2010. Table 4.12 shows major wildfires, defined as those affecting more than 50 acres, in the planning area since 2010.

Table 4.12: Major Wildfire Occurrences by County

Randolph County	Acres Affected
3/21/2011	250.00
3/23/2011	80.00
3/11/2013	57.00
3/27/2014	63.00
12/12/2015	88.00
10/3/2016	53.00
3/29/2019	60.00
St. Clair County	
2/21/2010	50.00
8/13/2010	205.00
9/10/2010	50.00
10/10/2010	105.00
11/11/2010	61.00
6/11/2011	66.00
7/1/2012	119.00
2/18/2013	94.00
3/14/2013	170.00
1/22/2014	101.00
2/27/2014	60.00
4/2/2014	57.00
5/4/2014	82.00
8/26/2014	100.00
2/14/2015	50.00
3/10/2016	56.00
8/31/2016	100.00
9/16/2016	62.00
10/4/2016	50.00
10/10/2016	112.00
11/4/2016	395.90
3/23/2017	110.00
3/24/2017	80.00
3/18/2019	50.00
12/1/2019	70.00

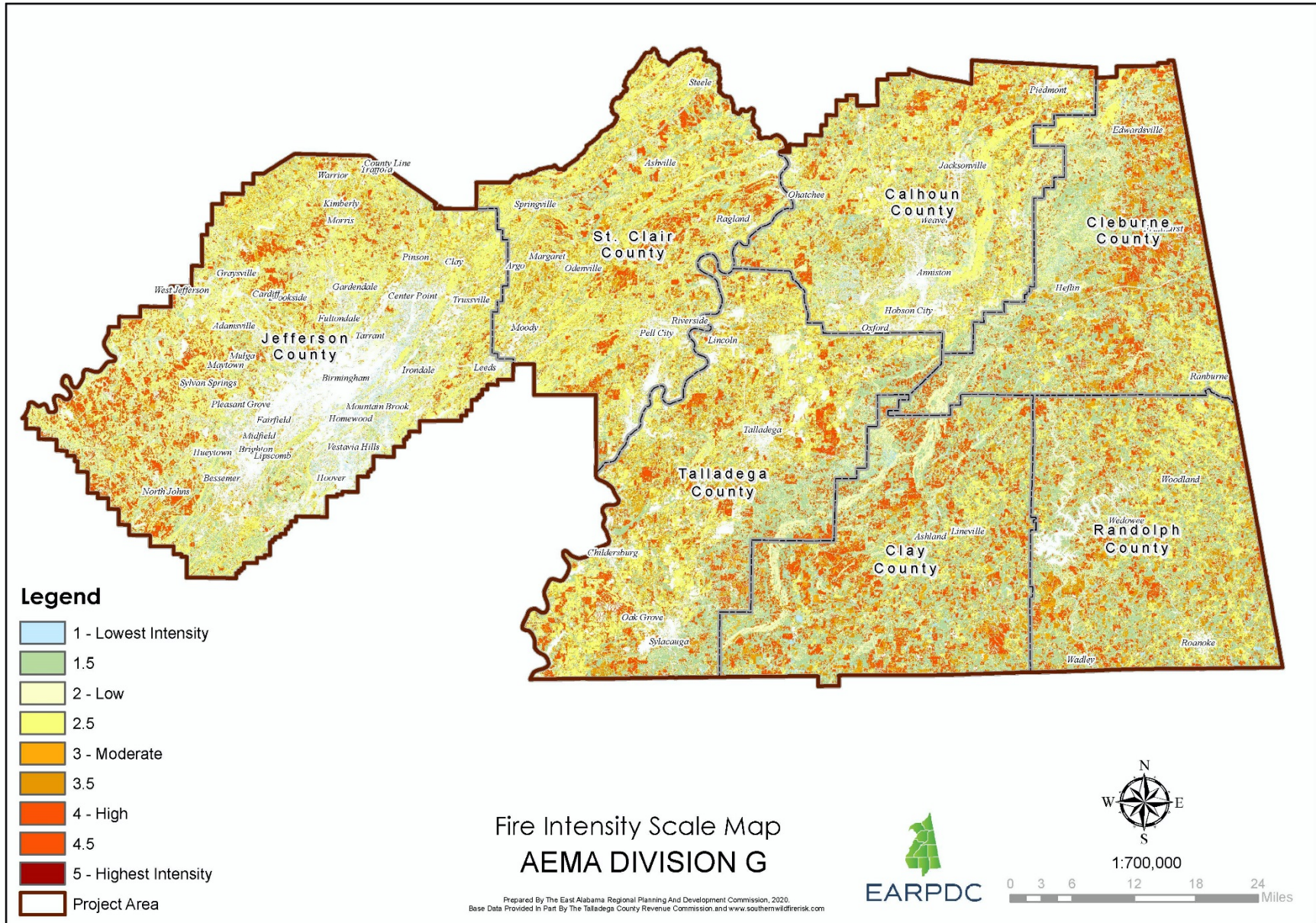
Source: Alabama Forestry Commission (9/17/2020)

Figure 4.24: Wildland-Urban Interface Risk Index in AEMA G



Source: Southern Group of State Foresters' Wildfire Risk Assessment Portal; EARPDC (2020)

Figure 4.25: Fire Intensity Scale Map for AEMA Division G



Source: Southern Group of State Foresters' Wildfire Risk Assessment Portal; EARPDC (2020)

Probability of Future Events

Randolph and St. Clair Counties are located in an area where the current fire danger conditions are low to moderate, according to the U. S. Forestry Service. Information on the state and county-level is limited, so wildfire information and susceptibility data will be adjusted in future updates. Though multiple isolated wildfires occur each year in the planning area, these have been minor to medium in nature and have not greatly impacted the planning area. Therefore, the entire planning area will be regarded to have a Low probability for major damage from wildfire events.

WINTER STORM/ICE 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 and ice storms on a community depends on how equipped the community is to handle the storm, as storms can cause power outages, transportation problems, and collapsed roofs on structures. These events may make roads impassable 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/ice 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

Winter/ice storms may affect Randolph and St. Clair Counties on a yearly basis and the entire planning area is susceptible to these storms.

Extent

Winter/ice storms may have varying effects on the planning area. The winter weather documented in the area has generally caused several inches of ice and/or snow, which may cause tree and property damage, power outages, and exacerbate dangerous road conditions. Serious travel problems can occur, resulting in injury or death. 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

According to NOAA's Storm Events Database, since 1990 Randolph and St. Clair Counties have had 19 winter storm and ice storm events, resulting in approximately \$260,000 of property damages.

In January 1996, a winter storm brought a mixture of freezing rain, sleet, and snow to the northern two-thirds of Alabama. Precipitation began as freezing rain and sleet but quickly changed to snow. The precipitation coated roads and caused serious travel problems. Property damages were approximately \$10,000 for both counties.

In January 2005, the planning area experienced an ice storm causing approximately \$100,000 in damage for Randolph County and \$20,000 for St. Clair County. Ice accumulations reached

from one-quarter inch to one inch in a few locations across the planning area. Several trees, tree limbs, and power lines were knocked down and many of the fallen trees temporarily blocked roadways; many roads were closed temporarily due to the icing. Several area bridges became totally iced over and were very hazardous for travel. Power outages were widespread during the early morning hours with up to 30,000 homes and businesses without power.

On December 25, 2010, an average snowfall accumulation of 1.5 inches occurred across St. Clair County with isolated higher amounts, including in the higher elevations of the northern portion of the county where 2.0 inches accumulated. A period of freezing rain led to ice accumulation on area roadways and several vehicle accidents.

Probability of Future Events

Due to the intermittency of winter/ice storm occurrences in the planning area and their serious effects, there is a Moderate probability for major damage caused by a winter storm.

4.3 Technological and Human-Caused Hazards

Randolph and St. Clair Counties have 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 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 lines that bisect 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 regard 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.

4.4 Vulnerability Overview

Table 4.13 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 4.13: 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 4.14 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 4.14: Summary of Regional Hazards Risk Impact

Hazard	Degree of Risk					
	Probability	Impact	Location Extent	Warning Time	Duration	Weighted Score
Dam Failure	Low	Critical	Small	12 to 24 hours	Less than 6 hours	2.2
Drought/Extreme Heat	Medium	Minor	Moderate	More than 24 hours	More than one week	2.3
Earthquakes	Low	Critical	Small	Less than 6 hours	Less than 6 hours	2.4
Flooding	High	Critical	Moderate	6 to 12 hours	Less than one week	3.3
High Winds – Hurricanes	Medium	Limited	Moderate	More than 24 hours	Less than 24 hours	2.4
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	Medium	Minor	Small	Less than 6 hours	Less than one week	2.3
Winter Storms	Medium	Limited	Moderate	More than 24 hours	Less than one week	2.5

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-Severe Thunderstorms (2.6 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 4.15 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 at the same rate. However, the figures below will provide at least a possible estimate of potential damages.

The probability (% or events per year) that an identified hazard will occur on an annual basis was determined using the following formula:

$$\text{Probability of Future Annual Event Occurrences} = \frac{\text{\# of historical or reported events in a time period}}{\text{\# of years the incidents occurred within}}$$

Example: 1 Dam Failure events experienced divided by a 20-year period=5% probability of future annual event occurrences.

A similar formula was utilized to determine an estimate of annual future damage:

$$\text{Estimate of Expected Future Damages} = \frac{\text{Total amount of damages (\$) for each historical or reported event}}{\text{\# of damage causing events within the time period}}$$

Example: \$2,567,000 total reported flooding damage from 2000-2020 with 27 of those being reported as damage causing: \$2,567,000/27=\$95,074

The time scales for each recorded hazard is listed below (when known and/or applicable) in Table 4.15:

Dam Failure: 2000 through 2020

Drought / Extreme Heat: 2000 through 2020

Flooding: 2000 through 2020

Landslides: Unknown

Land Subsidence / Sinkholes: Unknown

Wildfires: 2010 through 2020

Winter Storms: 1990 through 2020

Table 4.15: Natural Hazard Probability and Damage Estimates

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	1	20	\$400,000	5%	N/A
Drought / Extreme Heat	93	20	N/A	4.5 events per year	N/A
Flooding	47	20	\$2,567,000	2.4 events per year	\$95,074
High Winds	288	20	\$205,863,000	14.1 events per year	\$1,089,222
Landslides	3	N/A	N/A	N/A	N/A
Land Subsidence / Sinkholes	3	N/A	N/A	N/A	N/A
Wildfires	502	10	N/A	50.2 events per year	N/A
Winter Storms	19	30	\$260,000	63%	\$28,000

Sources: NCDC, Alabama Forestry Commission

Dam Failure: The estimated future damages from dam failure cannot be calculated based on historic records due to lack of data. There has been one documented occurrence in St. Clair County in 2004. 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 Coosa and Tallapoosa rivers.

Drought/Extreme Heat: The estimated future damages 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 47 flooding events in the last two decades causing an estimated \$2.567 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 288 high wind events over the past two decades causing an estimated \$205 million 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 the counties, 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 502 wildfire events over a 10-year period, the impact of wildfires have been somewhat 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 19 winter storm events, including snow and ice, over the past thirty years century causing an estimated \$260,000 in damages. These events normally have a short duration and have moderate 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 4.16 is derived from local municipal government and tax valuation from the local revenue offices, as well as 2010 Census population. This data provides an estimate of total exposure in the planning area.

Table 4.16: Total Population and Property Information by Jurisdiction

Jurisdiction	2010 Total Population	Parcels	Number of Buildings	Total Appraised Value of Improvements
Randolph County (Unincorporated)	22,913	6912	6912	\$943,292,573
City of Roanoke	6,074	3984	2490	\$256,150,586
Town of Wadley	751	392	234	\$29,504,866
Town of Wedowee	823	968	479	\$72,010,797
Town of Woodland	184	271	156	\$17,125,535
St. Clair County (Unincorporated)	83,593	26,644	22,823	\$1,348,544,082
City of Argo	4,010	2,238	2,230	\$208,280,040
City of Ashville	2,212	1,676	1,566	\$89,083,890
City of Margaret	4,428	2,832	2,142	\$217,189,360
City of Moody	11,726	5,936	6,345	\$783,847,096
City of Odenville	3,585	2,972	2,599	\$241,967,950
City of Pell City	12,695	7,668	7,701	\$931,889,289
Town of Ragland	1,639	1,166	1,141	\$84,467,207
Town of Riverside	2,208	1,285	1,353	\$107,614,170
City of Springville	4,080	2,571	2,598	\$339,055,590
Town of Steele	1,043	732	827	\$68,529,860

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 or hospitals. 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. 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 4.17 lists a summary of critical facilities summarized by type in the planning area. Table 4.17 lists critical facilities and their estimated replacement value. These lists are not all-inclusive and include 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 4.17: Critical Facility Summary

Facilities	Randolph	St. Clair	Planning Area
Fire / Rescue	17	23	40
Law Enforcement	4	10	14
Hospital / Health Dept	2	2	4
Schools	13	30	43
Airports	1	1	2

Source: Previous Local Hazard Mitigation Plans

Table 4.18: Critical Facilities Replacement Values

Facility Type	Replacement Value
Randolph County	
Roanoke Municipal Airport	\$10,651,000
Tanner Medical Center	\$25,000,000
Randolph County EMA, Main Street, Wedowee	\$900,000
Morrison Crossroads VFD, Newell	\$1,260,000
Tin Shop VFD, Roanoke	\$1,260,000
Bethel East VFD, Woodland	\$1,260,000
Woodland VFD, Woodland	\$1,260,000
New Hope VFD, Woodland	\$1,260,000
Wedowee FD, Wedowee	\$1,260,000
East Randolph VFD, Roanoke	\$1,260,000
Roanoke FD, Roanoke	\$1,260,000
Corinth VFD, Wadley	\$1,260,000
Rock Mills VFD, Roanoke	\$1,260,000
Dickert VFD	\$1,260,000
Wadley VFD	\$1,260,000
Rock Stand VFD	\$1,260,000
A & M VFD	\$1,260,000
Auslins Chapel VFD	\$1,260,000
Fosters Crossroads VFD	\$1,260,000
Newell VFD	\$1,260,000
Randolph County Sheriff's Office, Wedowee	\$1,260,000
Roanoke Police Headquarters	\$1,260,000
Wadley PD, Wadley	\$1,260,000
Wedowee PD, Wedowee	\$1,260,000
Hero K-9	\$1,260,000
East Alabama Christian Academy, Roanoke	\$288,210
New Hope School, Wedowee	\$393,010
Faith Christian Academy, Roanoke	\$628,810
Woodland High School, Woodland	\$14,316,760
Randolph County High School, Wedowee	\$9,918,800
Wedowee Middle School, Wedowee	\$2,178,390
Wedowee Elementary School	\$2,178,390
Randolph-Roanoke Career Technology Center, Wedowee	\$13,467,120
Knight Enloe Elementary School, Roanoke	\$6,111,670
Rock Mills Junior High School, Roanoke	\$1,674,970
Handley High School, Roanoke	\$5,318,720
Handley Middle School, Roanoke	\$8,176,460

Facility Type	Replacement Value
Wadley High School, Wadley	\$5,082,920
Roanoke HCR Lagoon, Roanoke	\$59,940,000
Town of Wadley Lagoon, Wadley	\$59,940,000
Wedowee Lagoon, Wedowee	\$59,940,000
WELR 1360, Roanoke	\$90,000
Alabama Power Company Harris Hydro, Wedowee	\$99,000,000
Transcontinental Gas Pipeline Corporation, Wadley	\$981,000
St. Clair County	
St. Clair Regional Hospital, Pell City	\$16,495,910
Moody Fire and Rescue, Moody	\$1,600,000
Riverside Fire Station, Riverside	\$200,274
Pell City Fire and Rescue, Pell City	*
Wolf Creek VFD, Pell City	*
Shoal Creek VFD and Rescue, Ashville	*
Wattsville FD, Ragland	*
Friendship VFD, Springville	*
Gallant VFD, Gallant	*
Fire House, Steele	\$629,466
Davis Lake FD, Springville	*
Fire Station #1, Springville	\$1,492,565
Fire Station #2, Springville	\$955,242
Pleasant Hill VFD, Springville	*
Branchville Fire and Rescue, Branchville	*
Odenville Fire Department, Odenville	*
Cook Springs VFD, Cook Springs	*
Margaret Fire and Rescue, Margaret	*
Municipal Complex/Fire Station #2, Trussville	\$300,000
Municipal Complex/Fire Station #1, Trussville	\$900,000
Fire Station 1, 3040 Cogswell Ave., Pell City	Building: \$486,249 Contents: \$69,211
Fire Station 2, 2710 Bubba Wyatt Rd., Pell City	Building: \$225,817 Contents: \$20,763
Fire Station 3, 5200 Mayes Bend Rd., Pell City	Building: \$408,876 Contents: \$39,143
Fire Station 4, 304 Cogswell Ave., Pell City	Building: \$359,901 Contents: \$20,763
Sheriff's Department - Dispatch Center, Pell City	\$1,260,000
St. Clair County Sheriff's Office, Pell City	\$1,260,000

Facility Type	Replacement Value
St. Clair Sheriff's Office, Ashville	\$1,260,000
Pell City PD, 1 st Ave. North, Pell City	\$1,260,000
Pell City PD, 19 th St. South, Pell City	\$1,260,000
Ashville PD, Ashville	\$1,260,000
Riverside PD, Riverside	\$1,260,000
Branchville PD, Odenville	\$1,260,000
Springville PD, US Hwy 11, Springville	\$1,260,000
Springville PD, P. O. Box 919, Springville	\$1,260,000
Bible Methodist Christian School, Pell City	\$1,165,930
Pearl Lake Christian Academy, Springville	\$262,010
Calvary Christian Academy, Springville	\$510,910
Mountain View Adventist, Pell City	\$235,810
Victory Christian School, Pell City	\$6,707,360
First Baptist Kindergarten, Pell City	\$121,650
Moody Middle School, Moody	\$6,900,120
Moody Elementary School, Moody	\$9,943,510
Moody Junior High School, Moody	\$3,952,550
Moody High School, Moody	\$8,772,530
Coosa Valley Elementary School, Cropwell	\$5,379,360
Iola Roberts Elementary School, Pell City	\$4,272,380
Eden Elementary School, Pell City	\$7,388,950
Duran South, Pell City	\$3,436,020
Duran Junior High School, Pell City	\$9,802,770
Pell City High School, Pell City	\$22,270,520
Walter M. Kennedy School, Pell City	\$8,359,680
Ashville Middle School, Pell City	\$3,930,090
Ragland High School, Ragland	\$7,729,180
Eden Area Technical Center, Ashville	\$6,733,560
Ashville High School, Ashville	\$5,633,130
Steele Junior High School, Steele	\$2,245,770
Ruben Yancey Alternative School, Ashville	\$4,349,300
Ashville Elementary School, Ashville	\$6,060,580
Springville Elementary School, Springville	\$8,172,340
Springville Middle School, Springville	\$12,170,180
Springville High School, Springville	\$7,755,380
Odenville Elementary School, Odenville	\$9,415,560
Odenville Middle School, Odenville	\$712,657
St. Clair County High School, Odenville	\$683,836
St. Clair County Airport, Pell City	\$10,651,000
Wastewater Treatment Plant Lagoon, Ashville	\$599,400
Wastewater Treatment Plant, Moody	\$599,400

Facility Type	Replacement Value
Dye Creek Wastewater Treatment Plant, Pell City	\$599,400
Kelly Wastewater Treatment Plant, Moody	\$599,400
Oneonta City Utilities Board, Allgood	\$599,400
Wastewater Treatment Plant Lagoon, Springville	\$599,400
40x60 Utility Building, Trussville	\$40,000
Southern Natural Gas Compressor Plant, County Road 45, Pell City	\$981,000
Southern Natural Gas Compressor Plant, St. Clair County	\$981,000
Southern Natural Gas Compressor Plant, Highway 78, Pell City	\$981,000
Alabama Power Company Power Plant, Vincent	\$99,000,000
Alabama Power Company Logan Martin PGS WH Power Plant, Vincent	\$99,000,000
WBMG-LP CH 38, Moody	\$90,000
WURL 760, Moody	\$90,000
WFHK 1430, Pell City	\$90,000
St. Clair County EMA EOC	\$2,500,000

Source: Previous Local Hazard Mitigation Plans, County EMAs

*Data unavailable

4.8 Summary of Historic Hazard Occurrence by Jurisdiction

The data in Table 4.19 is a summary of hazard occurrences described in Sections 4.1 and 4.2. A “Yes” (Y) indicates the hazard has directly impacted the area in the past. A “No” (N) indicates the hazard has not directly impacted the area in the past. An asterisk (*) indicates complete information is not readily available on the hazard.

Table 4.19: Summary of Historic Hazard Occurrences

Jurisdiction	Dam Failure	Drought/Extreme Heat	Earthquake ¹	Flooding	High Winds	Landslide ²	Land Subsidence/Sinkholes ²	Wildfire ³	Winter Storm
Randolph County	N	Y	N	Y	Y	N	N	Y	Y
City of Roanoke	N	Y	N	Y	Y	N	N	*	Y
Town of Wadley	N	Y	N	Y	Y	N	N	*	Y
Town of Wedowee	N	Y	N	Y	Y	N	N	*	Y
Town of Woodland	N	Y	N	Y	Y	N	N	*	Y
St. Clair County	Y	Y	Y	Y	Y	Y	Y	Y	Y
City of Argo	N	Y	*	Y	Y	*	*	*	Y
City of Ashville	N	Y	*	Y	Y	*	*	*	Y
City of Margaret	N	Y	*	Y	Y	*	*	*	Y
City of Moody	N	Y	*	Y	Y	*	*	*	Y
City of Odenville	N	Y	*	Y	Y	*	*	*	Y
City of Pell City	N	Y	*	Y	Y	*	*	*	Y
Town of Ragland	N	Y	*	Y	Y	*	*	*	Y
Town of Riverside	N	Y	*	Y	Y	*	*	*	Y
City of Springville	Y	Y	*	Y	Y	*	*	*	Y
Town of Steele	N	Y	*	Y	Y	*	*	*	Y

1. The epicenter of an earthquake has not been located within the limits of the planning area in the 20th Century.

2. Landslides and sinkholes are known to have occurred in St. Clair County, but there is no specific documentation of any of these landslide events. It is believed that each incident was very localized and minor in nature.

3. There have been no recorded wildfires in the National Climatic Data Center’s (NCDC) Storm Events Database. Alabama Forestry Commission reports County-level data only for wildfire occurrences.

4.9 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 2.2 (from a scale of 0 to 4).

Table 4.20: Risk Impact Assessment for Dam Failure

Probability	Low
Impact	Critical
Location Extent	Small
Warning Time	12 to 24 hours
Duration	Less than 6 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 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, there is only one instance of dam failure in the planning area near the Friendship Community, which occurred in 2004. Most of the damage estimates pertaining to this disaster are included in flooding assessments that are regional in scope. Wadley has been susceptible to high water releases from R.L. Harris Dam.

Given the lack of historical loss data pertaining to dam or levee failure, it is assumed that an event 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 2.3 (from a scale of 0 to 4).

Table 4.21: Risk Impact Assessment for Drought / Extreme Heat

Probability	Medium
Impact	Minor
Location Extent	Moderate
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 4.22: Risk Impact Assessment for Flooding

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

In the last two decades, well over \$2.5 million of damages have occurred from flooding in the planning area. Information pertaining to historical insured flood losses and repetitive flooded properties are not included due to a lack of response from the NFIP Coordinator. This information can be added in future updates.

The primary areas affected by riverine flooding in the planning area are along the Cahaba River, Coosa River, Tallapoosa River, and major tributaries to those rivers. Other areas inside the floodplains are streams and creeks throughout the counties and the municipalities.

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.

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 FEMA, there are 5 repetitive loss properties in the planning area, which accounted for \$151,436 in claims payments under the NFIP. These properties are single-family residential. Additional information is displayed below (Table 4.23).

Table 4.23: Repetitive Loss Properties

Jurisdiction	Types of Properties	NFIP Repetitive Loss Properties	Insured NFIP Repetitive Loss Properties	Total Paid in Claims on NFIP Repetitive Loss Properties
St. Clair County				
Unincorporated	Single Family	4	1	\$137,738
Pell City	Single Family	1	1	\$13,698

Source: FEMA (7/16/20)

HIGH WINDS (HURRICANES, TORNADOES, SEVERE THUNDERSTORMS)

HURRICANES

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

Table 4.24: Risk Impact Assessment for Hurricanes

Probability	Medium
Impact	Limited
Location Extent	Moderate
Warning Time	More than 24 hours
Duration	Less than 24 hours

Because storm surges from 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 most 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 flooding from torrential rains, debris creation, high winds, and a threat of tornadoes spawned by the hurricane system.

Hurricanes will provide those widespread effects during the summer and early autumn portions of the year. Due to Randolph and St. Clair Counties' inland location, there are a few days of warnings before a hurricane impacts the planning area, allowing for preparations.

TORNADOES

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

Table 4.25: 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 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 4.26: 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 4.27: 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 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 4.28: 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 2.3 (from a scale of 0 to 4).

Table 4.29: Risk Impact Assessment for Wildfires

Probability	Medium
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 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.

Though several wildfires occur annually in the planning area, many small and only affect small forested areas. There have been no recorded incidents in the NCDC 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 2.5 (from a scale of 0 to 4).

Table 4.30: Risk Impact Assessment for Winter Storms

Probability	Medium
Impact	Limited
Location Extent	Moderate
Warning Time	More than 24 hours
Duration	Less than one week

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

4.10 Vulnerable Populations in Randolph and St. Clair Counties

Background

According to the CDC, social vulnerability refers to a community's resilience after an external hazard has taken place. These hazards may be natural or human-caused disasters. When a community's social vulnerability is reduced human and economic losses are less likely. The CDC created a Social Vulnerability Index to measure how vulnerable a county or census tract is to any hazard. The measurement is based on a calculation that utilizes fifteen census variables, which help identify the vulnerable portion of a population. The CDC uses a scale of 0 to 1. A score of 0 indicates that a community has no vulnerable to any hazard, but a score of 1 means a community is extremely vulnerable to any hazard. Figures 4.26-4.30 are displayed on pages 117-121.

Overall Vulnerability

The Overall Social Vulnerability Index (page 117) is based on the data collected from the CDC's Social Vulnerability Index (SVI), which depicts the overall social vulnerability for the planning area. The overall SVI score for Randolph County is 0.4697 and St. Clair County is 0.0303, which is based on a scale of 0 to 1.

Each county has a range of vulnerability from low to medium at the census tract level. Randolph County is the most vulnerable county between the two counties, but the range of vulnerability is from low to medium. The western portions of unincorporated St. Clair County have the lowest rate of vulnerability, including Moody, Margaret, Argo, and Springville. The City of Pell City, Odenville, Ragland, Ashville, and Steele and the eastern portions of unincorporated St. Clair County have a low-medium to medium vulnerability rate. Randolph County's vulnerability shows medium in the northern and southern portions of the county, with the middle of the county showing low-medium. Woodland and Wedowee sit in this area of low-medium vulnerability, while Roanoke and Wadley are located in areas of medium vulnerability.

Due to the medium vulnerability populations in Randolph and St. Clair counties each jurisdiction should create plans and policies to protect these individuals from injury or death during any hazard. Understanding where the vulnerable population pockets are in each jurisdiction will help identify what hazards will or are more likely to impact these vulnerable people. Even though the planning area has a low to medium vulnerability each jurisdiction should be aware where these vulnerable populations live.

The CDC breaks down the fifteen variables into four themes that summarize how an area is socially vulnerable to a hazard. The themes focus on education, socioeconomic, housing, language skills, housing, ethnicity, family characters, and access to vehicles. Please refer to the maps on pages 117-121 for the details regarding vulnerability based on the specific themes.

Housing and transportation

The Housing Type and Transportation Index (page 118) is based on data from the American Community Survey for 2012-2016 for following variables: multi-unit housing, mobile homes, home crowding, no access to vehicles, and group quarters. The information presented in shows that much of the population living in Randolph and St. Clair counties are vulnerable to hazards based on the living conditions and access to transportation. Small towns, Ashville, Odenville, Pell City, Roanoke, Wadley, and Wedowee, and unincorporated areas are more likely to be vulnerability to hazards than those persons living in places like Springville, Steele, and Woodland. Persons living in multi-unit housing, manufactured homes, or in a crowded home are vulnerable to natural hazards such as tornadoes, flooding, hail, high winds/ thunderstorms, winter storms, tropical storms, and dam failure because these types of homes do not provide adequate protection from hazards. These types of homes are not built to the same standards as standalone home, for example, manufactured homes are built to withstand maximum winds of 70 mph. These structures will not survive high winds or tornadoes. Persons who do not have access to transportation are vulnerable to dam failure, flooding, high winds/ thunderstorms, tornadoes, wildfire, and winter storms because the option to leave their home is contingent on obtaining a way to leave, such as by vehicle, public transportation, bike, or walking. These modes of transportation are not viable for all individuals due to a lack of access or physical abilities. These persons who do not have the ability to leave are at risk because certain natural hazards provide little warnings, such as a wildfire, dam failure, or tornado. If persons do not have a safe place in their home or access to transportation (of any type) then their lives will be vulnerable/risked during the event of a natural hazard. Communities need to know where these vulnerable persons live in order to help save lives from hazards before the events take place.

Household Composition and Disability

The Household Composition and Disability Index (page 119) shows where people live in Randolph and St. Clair counties who are more vulnerable to hazards based on housing composition and the number of persons with disabilities. The housing composition and disability map is based on data from the American Community Survey for 2012-2016 for the following variables: aged 65+, aged 17 and under, single-parent household, and aged 5 and over with a disability. St. Clair County has a range of vulnerability from low to high census tracts based on the housing composition and individuals with disabilities. Randolph County's vulnerability ranges from low to medium. The southwest region of Randolph County, including Wadley, and the southwest region of St. Clair County, including Argo, Odenville, Margaret, and Moody have smaller portions of the population that are highly vulnerable to hazards. Portions of southern unincorporated St. Clair County have the highest vulnerability in the planning area. Northeast unincorporated Randolph County, and Woodland, show medium vulnerability, as does the northeast area of St. Clair County including Ashville and Ragland. In terms of hazard mitigation, the housing composition is important to understand because children and the elderly are more vulnerable to injuries during a hazard, such as extreme heat or tornado event, than a young or middle-aged adult. Natural hazards are also dangerous if a child or elderly person is home alone during the event because they may not have the knowledge or ability to address a hazardous situation. For example, if a child is home alone during a tornado event, he or she may not have the knowledge or experience to know where to take shelter, which makes that child vulnerable.

Persons who have a disability (physical or mental) are extremely vulnerable to hazards of any type because they may be socially or logistically isolated when a hazard occurs, such as a dam failure, flooding, winter storm, or tornado. These persons may not be able to evacuate quickly or may not be aware the natural hazard event is taking place. Communities need to know where these vulnerable persons live to reduce loss of life and injuries from hazards.

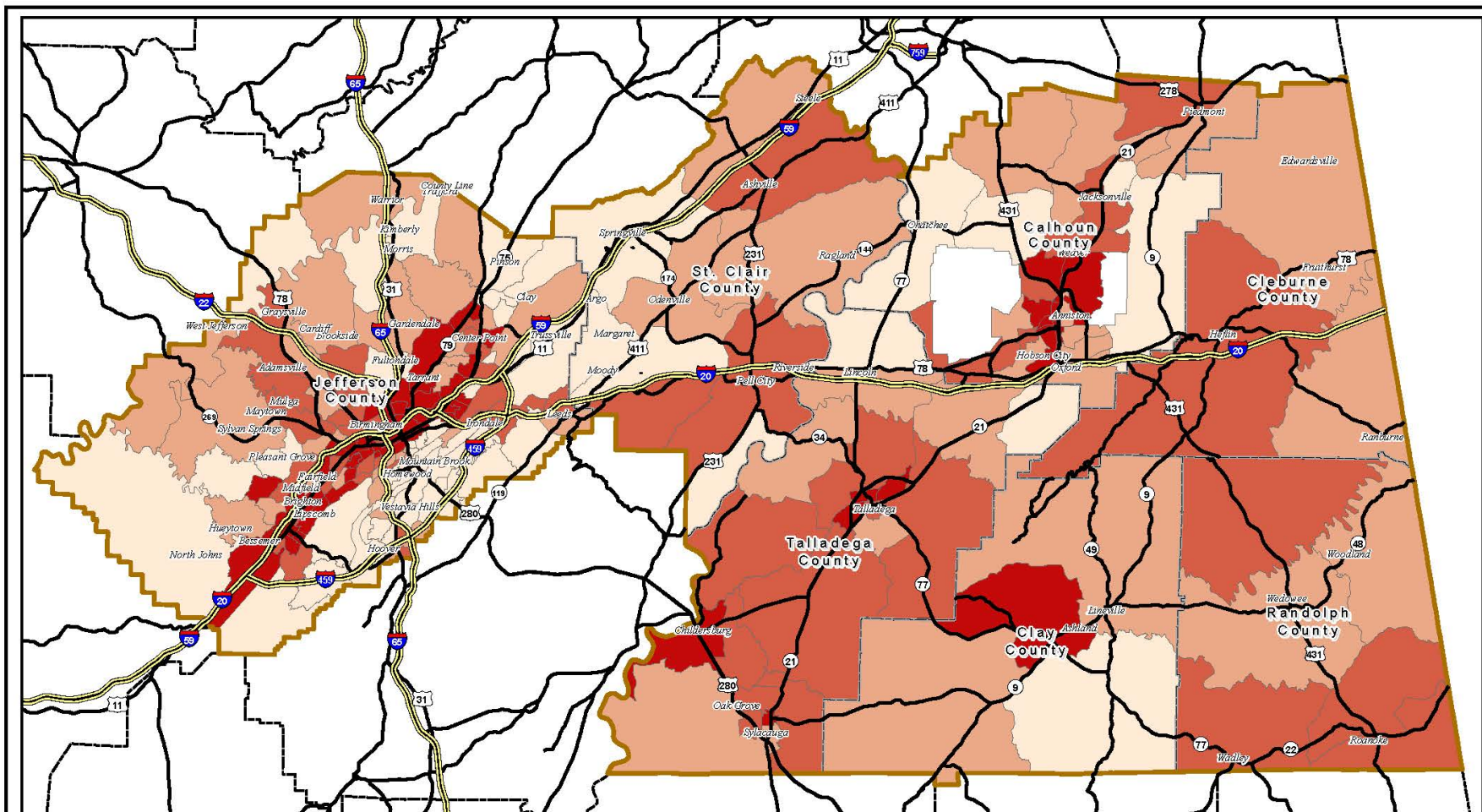
Socioeconomics

The Socioeconomic Status Index (page 120) shows where people live in Randolph and St. Clair counties who are more vulnerable to hazards based on the socioeconomic status of the population living in the planning region. Vulnerability data is based on socioeconomic status and is gathered from the American Community Survey for 2012-2016 for following variables: poverty, unemployment, per capita income, and no high school diploma. St. Clair County's vulnerability ranges from low to medium, while Randolph County's vulnerability ranges from low-medium to high. Western portions of St. Clair County including Argo, Margaret, Moody, and Springville show the lowest vulnerability in the planning area to hazards based on socioeconomic status. Central St. Clair County displays low-medium vulnerability, including Odenville and Ragland, while northern and southern portions of the county have medium vulnerability, including Ashville, Pell City, Riverside, and Steele. Rural Randolph County in the southwest region and Wadley have a high vulnerability to hazards based on socioeconomic status, but much of the county shows low-medium vulnerability, like Wedowee and Woodland. Roanoke sits in an area of medium vulnerability. Vulnerability to natural hazards due to socioeconomics can make a person or a family vulnerable to all hazards. These persons may not have the financial ability to prepare for hazards in advance, such as winter storms or droughts, and may also struggle to recover once a natural hazard event has taken place. The ability to evacuate during or before a hazard may not be an option for those who have socioeconomic difficulties. Communities need to know where these vulnerable persons live to reduce loss of life and injuries from hazards.

Minority Status and English Language Proficiency

The Minority Status and Language Index (page 121) shows where in Randolph and St. Clair counties persons live who are vulnerable to hazards based on the population's minority status and English language proficiency. The minority and English language proficiency map is based on data from the American Community Survey for 2012-2016 for the following variables: Ethnicity and English language proficiency. The majority of St. Clair County has the lowest number of persons who are vulnerable based on minority status and English proficiency, but southern portions of the county, including Pell City and Riverside, have low-medium vulnerability and an unincorporated area in the southwest corner has a pocket of medium vulnerability. Randolph County has a low to medium rate of vulnerability. Northern areas of unincorporated Randolph County and Woodland display a low-medium rate of vulnerability, while central and southwestern sections in the county, including Roanoke, Wadley, and Wedowee have the lowest portion of person vulnerable to any hazard based on the population's ethnicity and ability to communicate in English. There is a pocket of medium vulnerability above Roanoke. Providing information out in multiple languages is important because not everyone can read, write, or understand English. For those individuals who are not English-proficient, obtaining useful information about natural hazards in advance is essential to survival. If a person is unaware that a hazardous event is occurring due to a language barrier, their life is at risk to natural hazards. These persons will essentially be taken by surprise when a tornado, wildfire, winter storm, flood, or dam failure takes

place in their community. Communities need to know where these vulnerable persons live to reduce loss of life and injuries from hazards.



Overall Social Vulnerability

(SVI 2018)

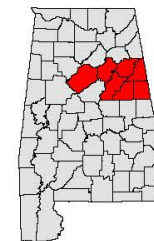
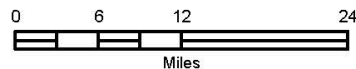
- Highest Vulnerability
- Medium Vulnerability
- Low-Medium Vulnerability
- Low Vulnerability
- AEMA Division G Boundary

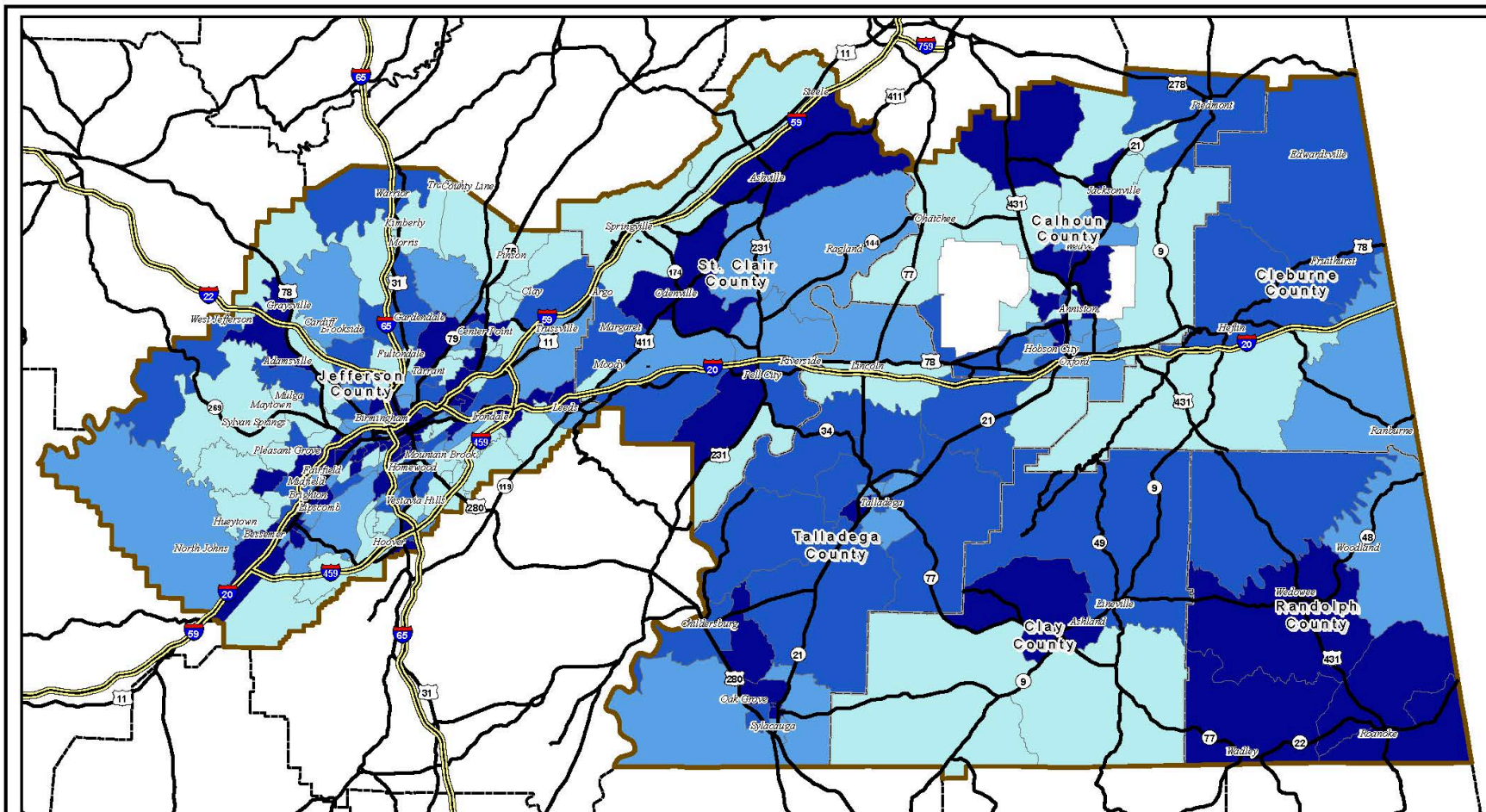
Note: Overall Social Vulnerability: All 15 variables. Displayed Using Natural Breaks (Jenks) Classification Method.

Note: The SVI combines percentile rankings of U.S. Census American Community Survey (ACS) 2014-2018 variables, for the state, at the census tract level.

CDC's Overall Social Vulnerability Index 2018

AEMA DIVISION G





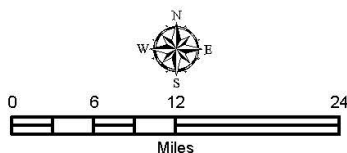
Housing Type & Transportation (SVI 2018)

- Highest Vulnerability
- Medium Vulnerability
- Low-Medium Vulnerability
- Low Vulnerability
- AEMA Division G Boundary

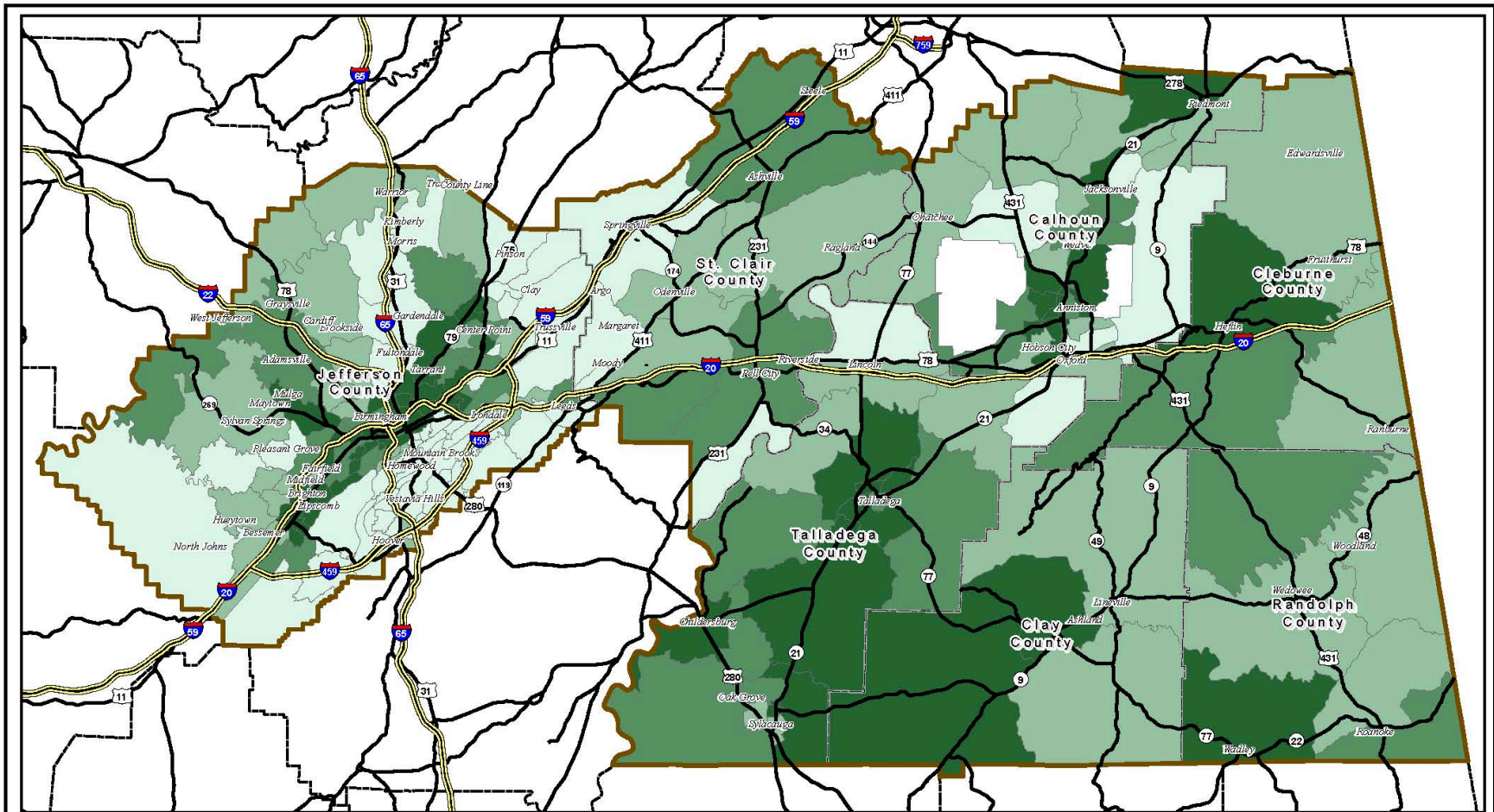
Note: Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters. Displayed Using Natural Breaks (Jenks) Classification Method

Note: The SVI combines percentile rankings of US Census American Community Survey (ACS) 2014-2018 variables, for the state, at the census tract level.

CDC's SVI Housing Type & Transportation Index 2018
AEMA DIVISION G



Prepared By The East Alabama Regional Planning And Development Commission, 2020.
 Base Map Data Obtained From The U.S. Census Bureau TIGER Dataset.



Socioeconomic Status

(SVI 2018)

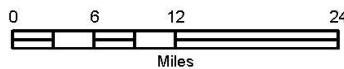
- Highest Vulnerability
- Medium Vulnerability
- Low-Medium Vulnerability
- Low Vulnerability

AEMA Division G Boundary

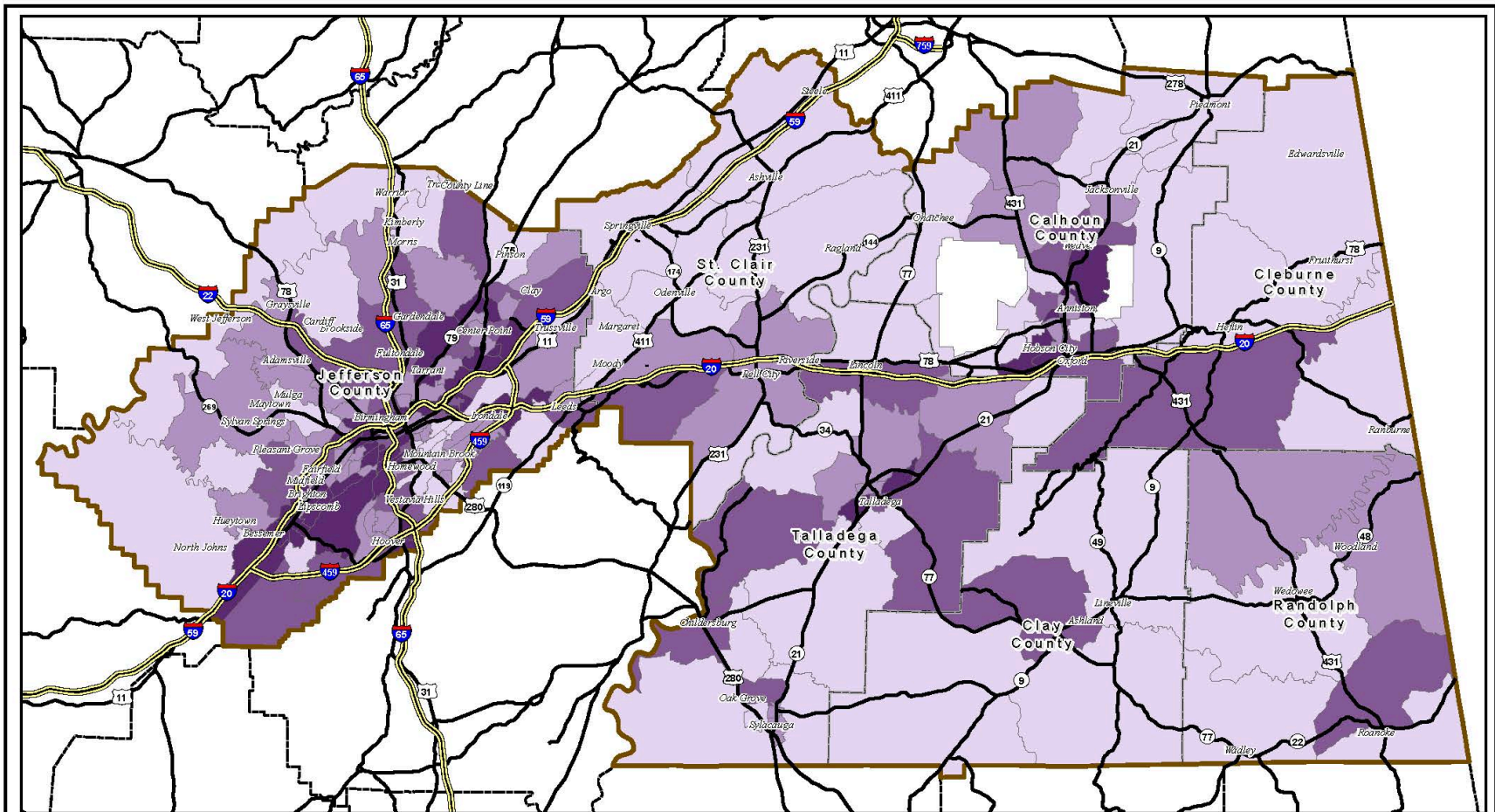
Note: Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma Displayed Using Natural Breaks (Jenks) Classification Method
 Note: The SVI combines percentile rankings of US Census American Community Survey (ACS) 2014-2018 variables, for the state, at the census tract level.

CDC's SVI Socioeconomic Status Index 2018

AEMA DIVISION G



Prepared By The East Alabama Regional Planning And Development Commission, 2020.
 Base Map Data Obtained From The U.S. Census Bureau TIGER Dataset.



**Race/Ethnicity/Language
(SVI 2018)**

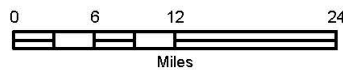
- Highest Vulnerability
- Medium Vulnerability
- Low-Medium Vulnerability
- Low Vulnerability

AEMA Division G Boundary

Note: Race/Ethnicity/Language: Minority, English Language Ability. Displayed Using Natural Breaks (Jenks) Classification Method.
Note: The SVI combines percentile rankings of US Census American Community Survey (ACS) 2014-2018 variables, for the state, at the census tract level.

CDC's SVI Minority Status & Language Index 2018

AEMA DIVISION G



4.11 Jurisdictional Vulnerability by Hazard in Randolph and St. Clair Counties

This section focuses on the vulnerability of each jurisdiction to each hazard according to the potential frequency and magnitude, past occurrences, internet information, and the impact of personal safety.

Dams

In Randolph County, one dam's hazard potential is classified as high, R.L. Harris Dam. If this dam failed, the areas, persons, infrastructure, and buildings could be impacted in the following regions: unincorporated western Randolph County, Wadley, and Wedowee.

In St. Clair County, two dams' hazard potential are classified as high, Logan Martin Dam and H. Neely Henry Dam. If either of these dams failed, the areas, persons, infrastructure, and buildings could be impacted in the following regions: unincorporated northeastern St. Clair County, unincorporated southern St. Clair County, Ashville, Ragland, and Cropwell.

People and communities in flood hazard zones and other areas downstream from major dams have the greatest vulnerability from dam failure. Although the likelihood of dam failure is low, a catastrophic failure would cause serious injury to persons, loss of life, damage, and destruction of buildings, structures, and infrastructure. Persons living in manufactured homes or homes older than 30 years near these dams are at risk if the dams fail. Currently, we do not have the specific number of persons, buildings, and structures that are vulnerable to a dam failure for any jurisdiction in Randolph or St. Clair counties.

Drought/Extreme heat

There is not a risk of losses for droughts based on a calculation from the historical record because zero damages have been reported for Randolph and St. Clair counties. The lack of evidence does not dismiss the risk associated with drought since qualitative records exist to show evidence of significant risk to public water supply during drought. Drought are potentially damaging to local agriculture and place the public at risk through water shortages in all jurisdictions in east central Alabama. A significant drought could impact the drinking water supply from the following sources: Crystal Lake, Lake Wedowee, Lake Logan Martin, and Coosa River. The sources serve the following jurisdictions: Roanoke, Wedowee, and St. Clair County. When a severe drought occurs the water levels are depleted in any jurisdiction (public water system or private well) resulting in a water shortage for the communities, which would impact all 106,506 persons' water supply or private wells. Livestock and agricultural lands that could face losses are mostly in unincorporated portions of Randolph and St. Clair counties. The rivers and lakes such as Lake Logan Martin, Lake Wedowee, Coosa River, and Tallapoosa River provide large areas for recreation for locals and tourists. The people bring in outside dollars for the local economies, but when a drought takes place the local economy suffers due to water shortages.

A drought can potentially impact all 106,506 residents, living in any jurisdiction in Randolph and St. Clair counties. The impacts felt by the communities would be as followed: diminished ground and surface water; loss of crops; decrease in drinking water supply; private and public wells

depletion. A drought can lead to shortages of water, strain public utilities, and major agriculture and tourism losses. The risk of drought is medium.

Extreme heat in Randolph and St. Clair counties can impact all 106,506 residents. Prolonged periods of high temperatures are not likely to impact the structures and facilities. However, these events might work in tandem with droughts. The probability of extreme heat in the planning area is rated as a medium. The persons, industry, and assets are vulnerable to extreme heat temperatures in the planning area: elderly population (75+), children, water sources (public and private), livestock/animals, agricultural products, persons living in manufactured homes, a person under the poverty line, fisheries, and forestry. It necessitates a review of mitigation planning techniques to avoid injury to vulnerable populations, particularly the elderly population.

Earthquakes

While damage from a major earthquake could be catastrophic, the risks are low to moderate for Randolph and St. Clair counties. According to the USGS historical records, zero earthquakes have been reported in Randolph County, and no earthquakes have been reported in St. Clair County since 1916.

Earthquakes could potentially impact all 106,506 residents and 63,563 structures in Randolph and St. Clair counties. A significant earthquake is unlikely, but despite being improbable one could result in widespread damage and destruction. Since the overall risk of an earthquake is low to moderate, the risk to lives and buildings is minimal. While the risk is low, it is important that the mitigation practices for earthquakes compliment other mitigation strategies and should be reviewed and incorporated into the mitigation plan.

The losses from earthquakes cannot be calculated based on the lack of historical records for the planning area. This evidence does not dismiss the risk associated with earthquakes. The probability of any type of losses from an earthquake in any jurisdiction in Randolph and St. Clair counties is low.

Flooding

Flooding is localized to areas close to surface water such as along Lake Logan Martin, Lake Wedowee, Coosa River, and Tallapoosa River, any major tributaries, or any additional areas with poor drainage. Flood hazard areas are most readily identifiable when they appear on a flood hazard map produced by FEMA. However, flooding can impact a larger area than the properties shown of the FEMA Flood maps when unpredictable weather patterns occur or changes to drainage features take place. The probability for flooding in the planning area is high. Due to lack of data, it is unclear how many persons are vulnerable to flooding across Randolph and St. Clair counties. Tables 4.31 and 4.32 discuss significant past flooding events by jurisdiction, where available. Where jurisdictional information is unavailable, or where an event affected all jurisdictions, information is provided for the county as a whole. The Town of Woodland is not prone to flooding. Past occurrences demonstrate where counties and jurisdictions may be vulnerable in the future.

Table 4.31: Flood Occurrences by Jurisdiction in Randolph County

Randolph County					
Jurisdiction	Date	Event	Damages	Injuries/ Deaths	Event Description
Wedowee	09/21/2000	Flash Flood	\$12,000	0	Heavy rainfall in a short amount of time caused flooding in Wedowee. Many roads were flooded, and creeks briefly ran out of their banks.
Wedowee/ County-wide	09/22/2000	Flash Flood	\$200,000	0	Very heavy rain fell across central Alabama in the early morning hours. The following events were reported: numerous high water rescues were performed by area fire departments, one junior high school sustained major damage, one home was totally destroyed, 100 homes suffered varying degrees of damage, 22 apartments were flooded, one bowling alley sustained major damage, at least 20 businesses were damaged, a few bridges were washed out, a few culvert pipes were washed away, trees and power lines fell down due to the saturated ground, and numerous roads were temporarily closed and impassable.
Randolph County	05/07/2003	Flash Flood	\$75,000	0	Several roads and bridges across the county were flooded.
Wadley	05/08/2003	Flood	\$300,000	0	The Tallapoosa River at Wadley was above the flood stage of 13 feet during this period. A crest of approximately 38 feet occurred in the afternoon of May 8. The crest height and time were estimated because the river gauge on SR 22 bridge over the river was under water. The city of Wadley was cut off on the 8th and 9th due to flooding of SR 22 both west and east of the town. The historic flooding came after an estimated 10 inches of rain fell across a large portion of the Tallapoosa River basin. The R. L. Harris Dam opened five of six gates to release water from behind the dam. Several buildings were flooded in and around Wadley including a small market on the west side of Wadley on SR 22 which had 3 feet of water inside. Farm equipment was caught in areas near the river and flooded.

Wadley	05/18/2003	Flood	\$0	0	The Tallapoosa river was above the flood stage of 13 feet. A crest of 18.78 feet occurred on May 18.
Randolph County	09/16/2004	Flash Flood	\$4,000	0	Hundreds of trees and power lines were knocked down across the county. At least 5500 customers were without power and the power was not fully restored in a few places for 2 to 3 days. One home was destroyed, and 10 to 20 others received mainly minor damage. Maximum wind gusts were estimated around 65 miles an hour. Doppler radar and ground observations indicate as much as 5 inches of rain fell during Ivan. A few homes received minor water damage and one road was washed out.
Wedowee	07/10/2005	Flash Flood	\$2,000	0	County Road 82 was flooded near Foster Crossroads. The road was temporarily impassable.
Roanoke	11/15/2006	Flash Flood	\$0	0	Satterwhite Street, in Roanoke, was temporarily closed due to flooding from heavy rainfall.
Roanoke	05/16/2009	Flash Flood	\$50,000	0	Several roads in and near the city of Roanoke were closed due to flash flooding. These roads included Chestnut Road, Louina Road, and CR-45 near Rockstand Road. County Road 41, near the Corinth Community, had four feet of water rushing across it.
Wedowee	01/24/2010	Flash Flood	\$25,000	0	Widespread flooding was reported around the city of Wedowee, and several roads had to be closed for several hours due to high water.
Roanoke	06/04/2010	Flash Flood	\$115,000	0	Significant flooding was reported around the city of Roanoke. Several streets became impassable with a foot or more of water flowing over them, and several homes in the area got up to 3 feet of water in them. The hardest hit area was along AL-22, near Midway Full Gospel Church. At least one unoccupied vehicle was carried about 400 feet down a flood swollen creek, and an additional vehicle in the same area was submerged for a time. One person had to be rescued from her trailer after flood waters surrounded it.

Randolph County	05/18/2013	Flash Flood	\$100,000	0	Over four inches of rainfall led to road closures and damage in northern Randolph county. Portions of old U. S. Highway 431 near Pineywood Creek and County Road 92 were impassable. A portion of County Road 9 near Lofty was washed away with repairs estimated at \$100,000.
Wedowee	04/04/2014	Flash Flood	\$0	0	An extended period of heavy rainfall led to flash flooding across Randolph County. Numerous roads were closed, and culverts washed out. Water as deep as two feet was reported in Wedowee, mainly along 5th St and 1st Ave, where two manufactured homes were evacuated due to rising water. Additional roads were impassable near the community of Hawk, near Lake Wedowee, north of Wadley.
Roanoke	08/10/2017	Flash Flood	\$0	0	Numerous reports of flooded roadways across southern Randolph County. Major flooding occurred in the city of Roanoke. Five water rescues were performed in the city of Roanoke along with two bridges washed out.
Randolph County	02/06/2020	Flood	\$0	1 Injury	Several roads washed out across northern Randolph County with 3-4 inches of rainfall reported during the event. One person injured when driving into area where road washed out.

Source: NCDC Storm Events Database (2020)

Table 4.32: Flood Occurrences by Jurisdiction in St. Clair County

St. Clair County					
Jurisdiction	Date	Event	Damages	Injuries/ Deaths	Event Description
St. Clair County	04/03/2000	Flash Flood	\$80,000	0	Numerous roads were flooded across the county when one to three inches of rain fell on already saturated ground. Rainfall totals for the storm event from the 1st to the 4th totaled six inches or more. Several roads were washed away.
Odenville	07/11/2002	Flash Flood	\$2,000	0	Several roads were temporarily impassable due to localized flooding in Odenville.
St. Clair County	09/22/2002	Flash Flood	\$20,000	0	The following events were reported: numerous high water rescues were performed by area fire departments, one junior high school sustained major damage, one home was totally destroyed, 100 homes suffered varying degrees of damage, 22 apartments were flooded, one bowling alley sustained major damage, at least 20 businesses were damaged, a few bridges were washed out, a few culvert pipes were washed away, trees and power lines fell down due to the saturated ground, and numerous roads were temporarily closed and impassable. Daylong rainfall totals at Logan Martin Dam were 10.96 inches.
Argo and Riverside	05/05/2003	Flash Flood	\$25,000	0	Numerous roadways and bridges were temporarily impassable due to high water. Many areas reported flooding from near Argo to near Riverside. At least 4000 customers were temporarily without power during the height of the storm.
Moody, Pell City, Springville, and Odenville	05/05/2003	Flash Flood	\$1,000,000	0	Numerous roads were flooded and temporarily closed due to high water. Especially hard hit was the city of Pell City where City Hall was flooded, and power was out for over 24 hours. Several mobile homes and homes were destroyed by the flooding. Numerous swift water rescues were performed in the Cook Springs and Prescott areas. Several stores were flooded in Moody along Moody Parkway. Many municipal

					buildings in Moody were also flooded. Several businesses were flooded in Springville and Odenville. Several cattle were killed by a lightning strike during the storms. Also, at least 7000 customers were without power for several hours as the storms repeatedly moved through the area.
Springville and Countywide	09/16/2004	Flash Flood	\$50,000	0	Numerous trees and power lines were blown down across St. Clair County. Thirty to forty homes sustained mainly minor roof damage. Power outages affected some locations for 3 days. Maximum wind gusts were estimated around 60 miles an hour. Doppler radar and ground observations indicate parts of St. Clair received up to 7 inches of rain. This heavy rainfall produced flooding of several roadways and flooded some businesses in Springville.
St. Clair County	11/24/2004	Flash Flood	\$400,000	1 fatality	Several roads were reported covered with water and were temporarily impassable. Several area streams and creeks rose above the banks. Doppler radar estimated widespread rain amounts of 4 to 5 inches with a few spots approaching 12 inches. A potential dam break situation developed in the afternoon. The dam eventually failed near the Friendship Community resulting in significant damage. Runoff from these storms lasted for several hours after the heaviest rains ended. A 73-year-old man died when his car was swept away in the high water near Pinedale Road.
Moody and Pell City	07/14/2005	Flash Flood	\$2,000	0	A few roads were temporarily impassable due to high water near New London and County Road 2214. Flooding was also reported in Pell City and Moody.
Springville	07/19/2005	Flash Flood	\$4,000	0	A mud slide occurred at a construction site due to the heavy rain. A few roads were temporarily impassable in the same area.
St. Clair County	02/06.2006	Flash Flood	\$3,000	0	Several roadways were flooded and were temporarily impassable across St. Clair County. The roadways included Wolf Creek Road, US Highway 78, Truss Ferry Road, King Circle, and Dry Creek Road.
Margaret	09/17/2009	Flash Flood	\$0	0	Flooding was reported on Main Street, near the Post Office, in Margaret.

Odenville	09/17/2009	Flash Flood	\$5,000	0	Flooding was reported in portions of Odenville. A car on Foreman Drive began to float in the flood waters.
Argo	09/17/2009	Flash Flood	\$50,000	0	Flooding, described as major, was reported in Argo, with almost a foot of water into some businesses on Main Street.
Pell City	05/18/2013	Flash Flood	\$0	0	Three to four inches of rainfall resulted in numerous roads in and around Pell City and Wattsville becoming impassable, including portions of Dr. John Haynes Dr., Florida Rd., Mt. Moriah Rd., and 19th St.
Ragland	06/01/2015	Flash Flood	\$0	0	Flash flooding reported on Providence Road in the town of Ragland. Fireworks stand washed into roadway.
Springville	08/10/2017	Flash Flood	\$0	0	Several roads flooded and impassable in the town of Springville due to highly efficient rainfall rates.
Pell City	06/10/2018	Flash Flood	\$0	0	A slow-moving cluster of thunderstorms along the I-20 corridor east of I-65 produced localized heavy rainfall. Flooding was reported along County Road 34 in the town of Cropwell.
Ashville, Pell City, Margaret, and Springville	02/06/2020	Flood	\$0	0	Widespread flooding across St. Clair county with 3-5 inches of rainfall reported overnight. Many roads flooded in the cities of Ashville, Pell City, Margaret, and Springville.

Source: NCDC Storm Events Database (2020)

When flooding occurs, residential homes, businesses, roads, utilities, bridges, and recreational facilities are vulnerable. Particularly those persons in poverty, manufactured homes, and the elderly are the most vulnerable to a flood event because it would be a financial burden to recover, to relocate, or to evacuation. Infrastructure in the planning area can be vulnerable to flooding such as roads, bridges, utilities, sidewalks, or storm water management, which can place a financial strain on the town and the local economy. Tables 4.33 and 4.34 discuss critical roadways, flood events they are prone to, and jurisdictions that may be affected.

Table 4.33: Randolph County Critical Roadways

Randolph County Critical Roadways			
Name	Type	Jurisdictions Affected	Flood Type
U.S. Hwy. 431	Major Highway	Wedowee, Roanoke	100-year flooding events
State Route 22	Major Highway	Wadley, Roanoke	100-year flooding events
State Route 48	Major Highway	Wedowee, Woodland	100-year flooding events
State Route 77	Major Highway	Wadley	100-year flooding events
County Road 635	County Travel	Unincorporated	25-year flooding events
County Road 624	County Travel	Unincorporated	25-year flooding events
County Road 905	County Travel	Unincorporated	25-year flooding events
County Road 898	County Travel	Unincorporated	25-year flooding events
County Road 435	County Travel	Unincorporated	25-year flooding events
County Road 242	County Travel	Unincorporated	25-year flooding events
County Road 489	County Travel	Unincorporated	25-year flooding events
County Road 67	County Travel	Unincorporated	25-year flooding events
County Road 45	County Travel	Unincorporated	25-year flooding events

Source: Previous local plans; Alabama Flood Map Website (2020)

Table 4.34: St. Clair County Critical Roadways

St. Clair County Critical Roadways			
Name	Type	Jurisdictions Affected	Flood Type
County Hwy. 22	Major Transportation Route	Ragland	100-year flooding events/Landslide Vulnerable Area
Interstate 59	8 miles of Interstate through the City of Argo (Bridge over RR at the 150-mile marker)	Argo, Ashville, Odenville, Springville, Steele	100-year flooding events
U.S. Hwy. 411	Major Transportation Route	Argo, Ashville, Margaret, Moody, Odenville	100-year flooding events
U. S. Hwy. 11	7 miles of highway thru the City of Argo; 3 miles of highway thru the City of Springville	Argo, Ashville, Odenville, Springville, Steele	100-year flooding events
Train Tracks	9 miles of Tracks thru the City of Argo	Argo	100-year flooding events
Interstate 20	Bridge included in Riverside	Moody, Pell City, Riverside	100-year flooding events
Hwy. 78	Bridge included in Riverside	Moody, Pell City, Riverside	100-year flooding events
State Route 144	Major Transportation Route	Ragland	100-year flooding events
Mountain View Road at U. S. Hwy 11	Major Transportation Route	Odenville	10-year flooding events
Village Springs Road (Area between Camp Road and Cole Drive)	Major Transportation Route	Springville	25-year flooding events
AL Hwy. 174 at Shanghai Road	Major Transportation Route	Springville	100-year flooding events
County Hwy 26	County Travel	Ashville, Ragland	100-year flooding events
State Route 23	Major Transportation Route	Ashville, Springville, Odenville	100-year flooding events

Source: Previous local plans; Alabama Flood Map Website (2020)

Landslides

Several landslides have been recorded by the Geological Survey of Alabama (GSA) in St. Clair County. Zero landslides have occurred in Randolph County. Since there is no specific documentation of any of these landslide events, and it is believed that each incident was very localized and minor in nature, there are no damage estimates available for the recorded incidents. Therefore, it is difficult to estimate the future damages or the probability of future occurrences. The primary effects of a landslides Randolph and St. Clair counties would include property damages, road closures, erosion of soil, and infrastructure damages. The overall risk for landslides is low.

Severe Thunderstorms (Hail and Lightning)

Hail can impact all 106,506 residents living and all 63,563 structures in Randolph and St. Clair counties. The following persons, industry, and assets are vulnerable to hail in Argo, Ashville, Margaret, Moody, Odenville, Pell City, Ragland, Riverside, Roanoke, Springville, Steele, Wadley, Wedowee, and Woodland, and unincorporated Randolph and St. Clair counties: vehicles (damage), home roofs (damage/destruction), windows (break/crack), person (injury or kill), livestock/animals (injury or kill), damage to crops and timber, manufactured homes, buildings walls (not brick), and power lines. The vulnerability to hail is sporadic due to the nature of damages incurred from hail, such as roofs, windows, homes, and automobiles. The community's capacity to implement mitigation strategies against hail is nearly impossible. Protection is largely limited to property design, maintenance, and insurance, which are individual responsibilities. Unfortunately, due to the isolation of hail events, it is not feasible to conduct through public education and community investments.

Lightning strikes can impact all 106,506 residents living, all 63,563 structures in Randolph and St. Clair counties. Vulnerability to lightning is limited to scattered injury or loss of life as well as damages to properties such as homes, electronics, structures, and data losses. The following persons, industry, and assets are vulnerable to lightning in Argo, Ashville, Margaret, Moody, Odenville, Pell City, Ragland, Riverside, Roanoke, Springville, Steele, Wadley, Wedowee, and Woodland, Randolph, and St. Clair counties: elderly persons, children, persons outside during lightning events, power lines, timber/trees, manufactured homes, crops, homes, structures, data not backed up, livestock/animals, electronics plugged into an outlet (computers, household appliances, or data servers), and any person in or on water (pool or boat).

The overall risk from severe thunderstorms is high, it is necessary to review potential and current mitigation strategies due to how common and highly destructive lightning and hail can be to a community.

Sinkholes

Sinkholes are a low threat to all jurisdictions in Randolph and St. Clair counties. Since sinkhole events are sporadic and rare, these events can potentially cause damage to life or property on a small scale. Homes, manufactured homes, structures, roads, utilities, persons, livestock /animals, and vehicles in all jurisdictions could be vulnerable to a manmade sinkhole. Due to the lack of data on sinkholes in Randolph and St. Clair counties at this time, it is not possible to know how many persons, structures, buildings, and infrastructure are vulnerable to sinkholes in each jurisdiction. However, mitigation planning takes place for sinkholes based on the ability of local jurisdictions to encourage thoughtful land use regulation and good infrastructure design.

High Winds (Hurricanes, Tornadoes, and Severe Thunderstorms)

All 106,506 residents living and all 63,563 structures in Randolph and St. Clair counties are vulnerable to tornadoes. Although the location of where tornadoes take place is sporadic, losses from these tornado events can impact a wide variety of persons, assets, and infrastructure in each jurisdiction. The following persons, assets, and industries in Argo, Ashville, Margaret, Moody, Odenville, Pell City, Ragland, Riverside, Roanoke, Springville, Steele, Wadley, Wedowee, and Woodland, and unincorporated Randolph and St. Clair counties: elderly person, children, education institutions, medical facilities, persons in vehicles, vehicles, group homes, apartment complexes, manufactured homes, power lines, timber/trees, livestock/ animals, manufacturing facilities, residential homes, dilapidated homes, buildings, structures, roofs, and Southern Company Services (provides power to much of the region).

All 9,172 manufactured homes in Randolph and St. Clair counties are at risk of tornado depression because these homes are not built to withstand winds greater than 70 mph. These homes can be toppled, walls and roofs can be ripped, or the home can be destroyed in a tornado. Persons living in manufactured homes, elderly persons, persons living in apartment complexes, persons living in poverty, and children at home alone may not have a safe place to go or may not be physically able (due to age or disability) to evacuate during a tornado event, which can put their lives at risk. These persons are found in every jurisdiction in Randolph and St. Clair counties. The economy is also vulnerable to tornadoes if a jurisdiction is hit hard enough, destroying major retail stores, residential areas, schools, major employers, or utilities. Losing these assets will take a community years to recover, which puts negative strains on the economy and causes the local jurisdiction to lose tax revenue. The overall risk from tornadoes is high, it is necessary to review potential and current mitigation strategies due to how sudden and destructive tornadoes can be to a community.

A tropical depression, tropical storm, or hurricane can impact all 106,506 residents living and all 63,563 structures in Randolph and St. Clair counties. Losses from high winds, heavy rains, and tornadoes from a tropical depression, tropical storm, or hurricane can impact homes, crops, timber, and infrastructure in all jurisdictions in Randolph and St. Clair counties. Risk from tropical depression, tropical storm, or hurricane are medium and require mitigating responses from all levels of government and from individuals throughout the region.

The potential areas of vulnerability during a tropical depression or tropical storm would be similar to those felt during a severe thunderstorm, flash flooding, or a tornado. As mentioned above, the planning area has a low susceptibility to a direct hit from a hurricane due to its inland location;

however, effects like heavy rain, flooding, winds, and tornadoes provoked by hurricanes often have significant impacts on the region. The following persons, industry, and assets are vulnerable to high winds/thunderstorms in Argo, Ashville, Margaret, Moody, Odenville, Pell City, Ragland, Riverside, Roanoke, Springville, Steele, Wadley, Wedowee, and Woodland, and unincorporated Randolph and St. Clair counties: elderly persons, persons driving vehicles, vehicles, manufactured homes, power lines, power, crops and timber, injury to a person, buildings constructed of wooden or vinyl, dilapidated homes/structures, vehicles, persons living below the poverty line, and windows. Each jurisdiction can have issues due to the damages that high winds and thunderstorms can cause such as roads may be closed due to debris blocking the roads, downed “live” power lines can cause injury or death to persons, loss of power, loss of working traffic signals, disrupted utilities from uprooted trees, and communication issues due to loss of power.

All 9,172 manufactured homes in Randolph and St. Clair counties are at risk during a tropical depression or tropical storm because the building materials can suffer from severe damage due to a strong straight line. These homes can be toppled as well as walls and roofs can be ripped off if the straight-line winds are strong enough. Those people may not have a safe place to go or may not be physically able (due to age or disability) to evacuate during a high wind and thunderstorm event, which can put their lives at risk.

Wildfire

Wildfires are a potentially damaging hazard that is experienced in Randolph and St. Clair counties. The areas that are closest to fuel sources such as uncleared forestland and timberland can be impacted negatively if a wildfire breaks out. Wildfires can impact all 106,506 residents living and all 63,563 structures in Randolph and St. Clair counties. All persons living in rural areas, 9,928 households in Randolph County, and 25,297 households in St. Clair County, are at a greater risk to wildfires than those living in urban areas because of the long emergency response times and longer report times. The elderly living in each jurisdiction are vulnerable to wildfire because these persons may not be able to evacuate, or they may start the fire on accident. Timber, property, wildlife, and injury or loss of human life are all vulnerable to wildfires in each jurisdiction. The planning area has a medium probability for wildfires.

Winter Storm

Although winter storms are infrequent, these storms threaten all 106,506 residents living and all 63,563 structures in Randolph and St. Clair counties. Although a catastrophic loss is unlikely, all the jurisdictions in Randolph and St. Clair counties are at risk from winter storms. These storms can damage structures that cannot properly bear the weight of ice and snow and can cause injury and loss of life where extended power outages and poor heating conditions may lead to exposure to the elements. Bridges and utilities such as waterlines/pipes and powerlines throughout the planning area are vulnerable. The following persons, industry, and assets are vulnerable to winter storms in Argo, Ashville, Margaret, Moody, Odenville, Pell City, Ragland, Riverside, Roanoke, Springville, Steele, Wadley, Wedowee, and Woodland, and unincorporated Randolph and St. Clair counties: elderly persons, utilities (water lines, power, power lines), persons driving vehicles, animals/ livestock, and trees/timber. Each jurisdiction’s roads, bridges, traffic signals, and utilities can be vulnerable to winter storms if ice and/or snow accumulated in the jurisdictions. The planning area has a medium probability for winter storms. Persons living in poverty are more vulnerable to winter storms because they may not have the means to keep themselves and family

members warm with or without power. The Town of Wadley has the largest portion of their population living below the poverty line at 38.1%, Steele has a poverty rate of 28.6%, the Wedowee's poverty rate is 23.7%, and in the City of Pell City 20% of the population is living below the poverty line. Jefferson County has 11,268, which is larger population of people living below the poverty line between the two counties, according to the ACS 2018 5-year Estimates. However, Randolph County has the highest percentage of persons below the poverty line, at 17.7%.

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 Division G 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
- 5.4 Capabilities Assessment for Local Jurisdictions
- 5.5 Jurisdictional Mitigation Action Plans
 - 5.5.1 EARPDC Mitigation Actions
 - 5.5.2 Randolph County Jurisdictions Actions
 - 5.5.3 St. Clair County Jurisdictions Actions

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. Hazard mitigation planning priorities have not changed for Randolph County; there has been no change in focus about which mitigation actions are most important. St. Clair County's priorities also remain largely unchanged, except for a shift from focus on individual storm shelters to community storm shelters. costs and/or benefits are often intangible attributes such as social effects.

A multi-stage process was used to identify, evaluate, and prioritize the goals, objectives, and actions. The selection and prioritization process remained the same as was used for the 2015 plan updates of both counties. In the selection and prioritization of mitigation actions, each member was asked to consider the following: funding options, political support, public support, legality, preservation of the environment, and staff capability. The committee then looked at each strategy in terms of costs and benefits. Not only were direct costs and benefits considered, but indirect costs and benefits were also acknowledged. Indirect costs and/or benefits are often intangible attributes such as social effects.

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 flood prone properties (Flooding)
2. Relocation of flood prone structures (Flooding)
3. Elevation of flood prone 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 Capabilities Assessment for Local Jurisdictions

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) Division G included in the final version of this plan is a seven-county region composed of 78 municipalities with a myriad of governmental powers. The specific planning area for this version of the Regional Hazard Mitigation Plan is two (2) counties with 14 municipalities. All county governments are governed by an elected commission.

The mitigation strategies listed in Section 5.3 above is framed by the capacity and capability of local jurisdictions to implement those actions through existing authorities, policies, programs, and resources. For most jurisdictions in the planning area, these are each very limited. Authority to control development through land use planning and zoning, a critical tool in hazard mitigation, is vested in municipalities that choose to exercise this practice. However, capacity is limited for enforcement due to local expertise, financial constraints, and public acceptance. The State of Alabama does not require a jurisdiction to implement land use planning and associated regulations. Therefore, most local jurisdictions avoid the practice of land use planning and zoning for general purposes and for hazard mitigation. In unincorporated areas within county jurisdictions, this authority is largely absent except as it applies to flood control and public street and subdivision regulation, which are practiced by each county in the planning area. Flood control, more broadly, is authorized for each local jurisdiction to practice through a local ordinance regulating the placement and construction of new structures. Most municipalities and each county participate in the National Flood Insurance Program (NFIP) and maintain compliance with the applicable regulations (Table 5.3). Likewise, the authority to enforce building codes is primarily restricted to municipalities and is only practiced by a limited number of these due to capacity constraints in the form of personnel, financial ability, and public acceptance.

Financial and technical capacity is limiting factors for implementation in most participating jurisdictions. The need for assistance in local planning and implementation is well established. Communities work together through the local EMA and their regional commission (EARPDC) to meet gaps in technical capacity related to planning for mitigation. Local jurisdictions work with county EMAs to implement specific strategies. Authority over spending is vested in local elected or appointed boards and commissions. Primarily, the county commissions and local municipal councils have been the leaders in deciding which mitigation strategies are worthy of investment. Other eligible jurisdictions have traditionally channeled mitigation projects through these local governmental bodies for sponsoring. The use of federal and state grants is a prevalent feature of the financial strategy for mitigation projects involving new construction and major rehabilitation of public facilities or expenditures.

The capabilities of each participating jurisdiction are defined by the authorities, policies, programs, and resources that each utilizes in pursuit of hazard mitigation. Each jurisdiction falls into one of several categories, which possesses distinct authorities and resources to establish hazard mitigation actions. For example, counties and municipalities differ in terms of statutory authority to pursue hazard mitigation. Meanwhile, two communities with the same authority may approach mitigation entirely differently in terms of the exercise of their authority. School and utility boards are subject to even greater restrictions on their authority.

The authorities and capabilities are summarized based on the powers granted by different units of government that participated in the planning process. County jurisdictions include: Randolph County and St. Clair County. Municipalities include: Argo, Ashville, Margaret, Moody, Odenville, Pell City, Ragland, Riverside, Roanoke, Springville, Steele, Wadley, Wedowee, and Woodland. A School Boards include: St. Clair County Board of Education and Pell City Schools. Hospitals include St. Vincent's St. Clair. Utilities include: Ashville Water and Sewer Authority, Camp Sumatanga, Chandler Mountain Water Authority, Cook Springs Water Authority, Margaret Water Authority, Margaret Sewer Authority, Moody Kelly Creek Wastewater Treatment Plant, New London Water and Sewer Authority, N. E. St. Clair Water Authority, N. W. St. Clair Water System, Odenville Utilities Board (Water and Sewer), Pell City Water Quality (Sewage – Bacteriological), Pell City Water, Pinedale Water and Sewer Authority, Ragland Water Works Board (Water), Riverside Utility Board (Water), Wattsville Water Authority (Water), Wolf Creek Water, Sewer, and Fire (Water/Sewage), and Town of Steele Waterworks Board.

Table 5.1 below summarizes the statutory authority and resources of each jurisdiction and its present use or intended future use of these powers to implement potential actions and types of actions listed in the hazard mitigation plan. The table describes powers or policies that are granted to different types of jurisdictions in general terms, describes the jurisdictions that currently apply those policies in their mitigation efforts, describes the jurisdictions that intend to apply those authorities and policies for future implementation, and describes the means by which each jurisdiction will incorporate the mitigation action into its existing powers, authorities, policies, and capabilities. In every case, the primary means of incorporation involves review of proposed actions and implementation through the appropriate governmental authority such as the city council, county commission, school board, or utility board.

Table 5.1: Statutory Authority and Resources

Multi-Jurisdictional Hazard Mitigation Action Plan: Capability Assessment	Authorized for...	Practiced by...	Proposed for...	Incorporated through...
Police power: ability to regulate activities of individuals in the jurisdiction for purposes of health, safety, and public welfare	Municipalities	All municipal jurisdictions	All municipal jurisdictions	Council or Commission action to enact and enforce regulations
Control of public expenditures: ability to acquire property and improve property owned by the jurisdiction; capacity to borrow and expend funds	Municipalities, Counties, School Boards, Utilities	All jurisdictions	All jurisdictions	Action to approve expenditures by local county commission, city council, school board, or utility board
Building code enforcement: ability to enforce codes related to building materials and construction standards outside of flood hazard areas	Municipalities	Ashville, Margaret, Moody, Pell City, Riverside, Springville	Ashville, Margaret, Moody, Pell City, Riverside, Springville	Council or Commission action to enact and enforce regulations
Floodplain management authority: ability to regulate development in areas of special flood hazard in compliance with NFIP standards; includes authority to regulate land use and subdivisions inside of flood hazard areas	Municipalities, Counties	All participating NFIP jurisdictions	All participating NFIP jurisdictions	Council or Commission action to enact and enforce regulations
Purchase properties subject to flooding and maintain as permanent open space.	Municipalities, Counties, School Boards, Utilities	All jurisdictions	All jurisdictions	Action to approve expenditures by local county commission, city council, school board, or utility board
Capital improvements: ability to plan and implement public infrastructure to mitigate hazards	Municipalities, Counties, School Boards, Utilities	All jurisdictions	All jurisdictions	Action to approve expenditures by local county commission, city council, school board, or utility board
Zoning authority: ability to divide political jurisdiction into districts for purposes of regulating buildings and their use, both inside and outside of flood hazard areas	Municipalities	Ashville, Moody, Pell City, Riverside, Roanoke, Springville, Wadley, Wedowee	Ashville, Moody, Pell City, Riverside, Roanoke, Springville, Wadley, Wedowee	Council action to enact and enforce regulations

Subdivision regulations: ability to regulate new developments involving new parcels and infrastructure, both inside and outside of flood hazard areas	Municipalities, Counties	Ashville, Margaret, Pell City, Riverside, Roanoke, Springville, All counties	Ashville, Margaret, Pell City, Riverside, Roanoke, Springville, All counties	County Commission or Council action to enact and enforce regulations
Storm water management program: ability to regulate retention, detention, and release of storm water runoff	Municipalities	Moody, Odenville, Pell City, Ragland, Springville	Moody, Odenville, Pell City, Ragland, Springville	Council action to enact and enforce regulations

Table 5.2 below provides a summary of local plans, ordinances, and programs currently in place, or being developed within jurisdictions in East 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 5.2: Relevant Plans, Ordinances, and Programs

Jurisdiction	Zoning Ordinance	Code Enforcement	Comprehensive Plan	Certified Floodplain Manager	NFIP Participation
Randolph County	N	N	N	N	Y
City of Roanoke	Y	N	Y	N	Y
Town of Wadley	Y	N	Y	N	Y
Town of Wedowee	Y	N	N	N	Y
Town of Woodland	N	N	N	N	N
St. Clair County	N	N	N	Y	
City of Argo	N	N	N	N	Y
City of Ashville	Y	Y	Y	N	Y
City of Margaret	N	Y	Y	N	Y
City of Moody	Y	Y	Y	N	Y
City of Odenville	N	Y	Y	Y	Y
City of Pell City	Y	Y	Y	N	Y
Town of Ragland	N	N	N	N	Y
Town of Riverside	Y	Y	Y	N	Y
City of Springville	Y	Y	Y	Y	Y
Town of Steele	N	N	Y	N	Y

Table 5.3 below summarizes NFIP participation and policy statistics for each jurisdiction in the planning area as of May 15, 2020. More site-specific information on at-risk structures and repetitive loss properties is provided in Section 4.8 in the Risk Assessment. Jurisdictions that are non-participating in the NFIP Program participated in the hazard mitigation planning process and have Mitigation Actions to address their status.

Table 5.3: National Flood Insurance Program (NFIP) Status

Jurisdiction	County	Participation Status	Initial FBHM Identified	Initial FIRM Identified	Current Effective Map Date
Randolph County	Randolph	Yes	09/13/74	07/05/82	04/18/11
City of Roanoke	Randolph	Yes	06/10/77	07/05/82	04/18/11
Town of Wadley	Randolph	Yes	05/17/74	08/19/85	04/18/11 M
Town of Wedowee	Randolph	Yes	10/06/68	07/05/82	04/18/11
Town of Woodland	Randolph	Not Mapped			
St. Clair County	St. Clair	Yes	03/31/78	09/29/89	08/17/16
City of Argo	St. Clair	Yes	07/07/78	02/07/82	08/17/16
City of Ashville	St. Clair	Yes	06/21/74	04/17/87	08/17/16
City of Margaret	St. Clair	Yes	10/06/78	06/19/12	08/17/16
City of Moody	St. Clair	Yes	05/31/74	07/04/89	08/17/16
City of Odenville	St. Clair	Yes	05/24/74	08/05/86	08/17/16
City of Pell City	St. Clair	Yes	06/21/74	07/04/89	08/17/16
Town of Ragland	St. Clair	Yes	05/24/74	06/03/86	08/17/16
Town of Riverside	St. Clair	Yes	04/04/75	08/19/86	08/17/16
City of Springville	St. Clair	Yes	12/27/74	08/19/86	08/17/16
Town of Steele	St. Clair	Yes	02/07/75	09/18/85	08/17/16

Source: NFIP Community Status Book (05/15/2020)

5.5 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	
Action Description	Title and description of action to be undertaken
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)
Hazards Addressed	Hazard which the action addresses
Local Planning Mechanism	Entity responsible for undertaking the action
Estimated Time Frame for Completion	Interval of time in which completion is the goal
Estimated Cost	Cost as estimated by the Counties/Jurisdictions
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 five years Ongoing: Action in progress / perennial occurrence Yearly: annual occurrence High: Projected implementation within five years Medium: Projected implementation between five and ten years Low: Projected implementation beyond ten years
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5.5.1 East Alabama Regional Planning and Development Commission (EARPDC) Mitigation Actions

EARPDC Mitigation Action Plan

Goal	Action Description	Hazards Addressed	Lead Agency	Funding Source	Priority / Status
1	EARPDC will maintain the mitigation plan by seeking additional grant funding, as needed	All	EARPDC	HMGP/Local	High
1	EARPDC will work to incorporate Calhoun, Clay, Cleburne, Jefferson, and Talladega Counties and their jurisdictions not part of this plan as their plans expire	All	EARPDC	HMGP/Local	High
1	EARPDC will facilitate multi-jurisdiction collaboration by attending AEMA Division G meetings on at least an annual basis	All	EARPDC	Local	High

5.5.2 Randolph County Jurisdictions Mitigation Actions

Randolph County is not susceptible to earthquakes, landslides, and sinkholes, and therefore no actions are needed for these hazards. The Town of Woodland is also not prone to flooding.

- 1. Randolph County**
- 2. City of Roanoke**
- 3. Town of Wadley**
- 4. Town of Wedowee**
- 5. Town of Woodland**

Randolph County Mitigation Actions	
Mitigation Action	Purchase and install severe weather sirens.
Goal	#1
Hazard(s) Addressed	TH; T
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$35,000 each
Funding Sources	HMGP, PDM, CDBG
Priority/Status	High, Ongoing Five severe weather sirens have been installed during the past five years.
Mitigation Action	Complete a hydrologic study with particular interest on the retrofit of bridges and improving drainage troubled areas.
Goal	#1
Hazard(s) Addressed	Floods
Local Planning Mechanism	Randolph County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	\$40,000
Funding Sources	HMGP, PDM, CDBG
Priority/Status	High, Ongoing Lack of funding has prevented this project from being completed within the last five years.
Mitigation Action	Improve drainage along county roads that flood during 25-year flooding events.
Goal	#2
Hazard(s) Addressed	Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	TBD following completion of hydrologic study
Funding Sources	HMGP, PDM, CDBG, DOT, ALDOT
Priority/Status	High, Ongoing This action item is pending a hydrologic study costing approximately \$40,000. Lack of funding has prevented this project from being completed within the last five years.

Mitigation Action	Purchase and install emergency generators for post-disaster mitigation and conduct routine tests on backup generators for the county courthouse. Generators for county jail no longer relevant.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	Randolph County Commission and Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$50,000 to \$65,000 each
Funding Sources	HMGP; ADECA; DHS, CDBG, Local
Priority/Status	High, Ongoing Generators for county jail no longer relevant.
Mitigation Action	Provide adequate individual storm shelters and community safe rooms.
Goal	#4
Hazard(s) Addressed	TH; T
Local Planning Mechanism	Randolph County Commission and Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$4,000 - \$130,000 each
Funding Sources	HMGP; ADECA; Local; GEF when available
Priority/Status	High, Ongoing New Mitigation Action Item
Mitigation Action	Continue the active programs and activities of the Randolph County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	unknown
Funding Sources	HMGP; Local
Priority/Status	High, New

City of Roanoke's Mitigation Actions	
Mitigation Action	Make application and/or commit/continue to participate in the NFIP.
Goal	#1
Hazard(s) Addressed	FL
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	N/A
Funding Sources	Local
Priority/ Status	High, Ongoing Roanoke is a participating member of the NFIP and plans to keep this status.
Mitigation Action	Complete a storm water study with particular interest on the retrofit of bridges and improving drainage in troubled areas.
Type	Prevention
Goal	#1
Hazard(s) Addressed	FL
Local Planning Mechanism	Roanoke Public Works Director
Estimated Time Frame for Completion	2025
Estimated Cost	\$150,000
Funding Sources	City Funds, HMGP, PDM, CDBG
Priority/Status	High, Ongoing Lack of funding has prevented this project from being completed within the last five years.
Mitigation Action	Purchase and install emergency generators for post disaster mitigation and conduct routine tests on backup generators for critical facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	Roanoke City Council

Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$65,000 each
Funding Sources	HMGP, ADECA, DHS, CDBG, Local
Priority/Status	High, Ongoing
Mitigation Action	Install community safe rooms
Type	Structural Projects
Goal	#4
Hazard(s) Addressed	TH; T
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$130,000 each
Funding Sources	HMGP; ADECA; Local; GERF when available
Priority/Status	High, Ongoing Lack of funding has prevented this project from being completed within the last five years.
Mitigation Action	Repaving of Franklin Road due to flooding of the road and heavy traffic volume because of Traylor's Nursing Home location
Goal	#1, #4
Hazard(s) Addressed	Floods
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$100,000.00
Funding Sources	Federal funding & City of Roanoke
Priority/Status	High, New
Mitigation Action	Repaving of Bud Cummings Road due to storm water drainage weakening the edge of the pavement and heavy traffic of log trucks and dump trucks
Goal	#1, #4
Hazard(s) Addressed	Floods
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$175,000.00
Funding Sources	Federal funding & City of Roanoke

Priority/Status	High, New
Mitigation Action	Repaving of West Point Street due to storm water drainage and heavy traffic due to the location of Handley High School and the Roanoke Sports Complex
Goal	#1, #4
Hazard(s) Addressed	Floods
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for	2025
Estimated Cost	\$300,000.00
Funding Sources	Federal funding & City of Roanoke
Priority/Status	High, New
Mitigation Action	Repaving of Johnson Street due to the storm water drainage and heavy traffic of log trucks busting the pavement up when logging occurred in the area
Goal	#1, #4
Hazard(s) Addressed	Floods
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for	2025
Estimated Cost	\$150,000.00
Funding Sources	Federal funding & City of Roanoke
Priority/Status	High, New
Mitigation Action	Repaving of Industrial Blvd. due to storm water drainage, heavy traffic, and cattle and semi-trucks.
Goal	#1, #4
Hazard(s) Addressed	Floods
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for	2025
Estimated Cost	\$100,000.00
Funding Sources	Federal funding & City of Roanoke
Priority/Status	High, New

Mitigation Action	Continue the active programs and activities of the Randolph County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for	2025
Estimated Cost	unknown
Funding Sources	HMGP; Local
Priority/Status	High, New

Town of Wadley's Mitigation Actions	
Mitigation Action	Make application and/or commit/continue to participate in the NFIP.
Goal	#1
Hazard(s) Addressed	FL
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	N/A
Funding Sources	Local
Priority/Status	High, Ongoing The Town of Wadley is a NFIP participating community and plans on maintaining this status.
Mitigation Action	Purchase and distribute public education materials on flooding response and preparedness (magnets, brochures, etc.)
Goal	#6
Hazard(s) Addressed	FL
Local Planning Mechanism	Wadley Town Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$1,500
Funding Sources	HMGP, PDM, Local
Priority/Status	Medium, Ongoing Budgetary restraints have prevented this mitigation action item from being implemented thus far.
Mitigation Action	Purchase/update emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	Wadley Town Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$1,000 - \$5,000 each
Funding Sources	HMGP; ADECA; PDM; Local

Priority/Status	High, Ongoing
Mitigation Action	Install community safe rooms.
Goal	#4
Hazard(s) Addressed	TH; T
Local Planning Mechanism	Wadley City Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$130,000 each
Funding Sources	HMGP; ADECA; Local; GERP when available
Priority/Status	High, Ongoing Budgetary restraints have prevented this mitigation action item from being implemented thus far.
Mitigation Action	Continue the active programs and activities of the Randolph County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	unknown
Funding Sources	HMGP; Local
Priority/Status	High, New

Town of Wedowee's Mitigation Actions	
Mitigation Action	Make application and/or commit/continue to participate in the NFIP.
Goal	#1
Hazard(s) Addressed	FL
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	N/A
Funding Sources	Local
Priority/Status	High, Ongoing The Town of Wedowee is a NFIP participating community and plans on maintaining this status.
Mitigation Action	
Mitigation Action	Complete a hydrology study with particular interest on the creek overflows and improving drainage in troubled areas.
Goal	#1
Hazard(s) Addressed	FL
Local Planning Mechanism	Wedowee Utilities Department
Estimated Time Frame for Completion	2025
Estimated Cost	\$50,000
Funding Sources	City Funds, HMGP, PDM, CDBG
Priority/Status	High, Ongoing Lack of funding has prevented this project from being completed within the last five years.
Mitigation Action	
Mitigation Action	Make drainage improvements along the creek following the completion of a hydrology study.
Goal	#2
Hazard(s) Addressed	TH; T; FL; W; H; D/LF
Local Planning Mechanism	Wedowee Utilities Department
Estimated Time Frame for Completion	2025
Estimated Cost	\$50,000
Funding Sources	HMGP; PDM; CDBG; Local

Priority/Status	High, Ongoing Budgetary restraints have prevented this mitigation action item from being implemented thus far.
Mitigation Action	Purchase emergency generators for post disaster mitigation and power outages, to include one for the Wedowee Water Authority
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	Wedowee Town Council; Wedowee Water Authority
Estimated Time Frame for Completion	Completed
Estimated Cost	\$30,000 each
Funding Sources	HMGP; PDM; Local
Priority/Status	Completed
Mitigation Action	Install community safe rooms.
Goal	#4
Hazard(s) Addressed	TH; T
Local Planning Mechanism	Wedowee Town Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$130,000 each
Funding Sources	HMGP; ADECA; Local; GERP when available
Priority/Status	High, Ongoing
Mitigation Action	Continue the active programs and activities of the Randolph County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for	2025

Estimated Cost	unknown
Funding Sources	HMGP; Local
Priority/Status	High, New

Town of Woodland's Mitigation Actions	
Mitigation Action	Make application and/or commit/continue to participate in the NFIP.
Goal	#1
Hazard(s) Addressed	FL
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2025
Estimated Cost	N/A
Funding Sources	Local
Priority/Status	Low, Ongoing The Town of Woodland has been mapped, and it is in Flood Zone X (Area of Minimal Flood Hazard): therefore, the town is not a NFIP participating community.
Mitigation Action	Purchase emergency generators for post disaster mitigation.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	Woodland Town Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$30,000 each
Funding Sources	Local
Priority/Status	High, Ongoing
Mitigation Action	Install community safe rooms.
Goal	#4
Hazard(s) Addressed	TH; T
Local Planning Mechanism	Woodland Town Council
Estimated Time Frame for Completion	2025
Estimated Cost	\$130,000 each
Funding Sources	ADECA; Local; GERP when available
Priority/Status	High, Ongoing

Mitigation Action	Continue the active programs and activities of the Randolph County EMA to promote mitigation and
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for	2025
Estimated Cost	unknown
Funding Sources	HMGP; Local
Priority/Status	High, New
Mitigation Action	Retrofit Town Hall and Woodland Senior Citizens Center to withstand winds of 200 MPH (the recommended wind rating based on wind zones in the southeast)
Goal	#4
Hazard(s) Addressed	TH; T
Local Planning Mechanism	Woodland Town Council
Estimated Time Frame for Completion	2025
Estimated Cost	TBD
Funding Sources	ADECA; Local
Priority/Status	High, Ongoing Budgetary restraints have prevented this mitigation action item from being implemented thus far

5.5.3 St. Clair County Jurisdictions Mitigation Actions

- 1. St. Clair County**
- 2. City of Argo**
- 3. City of Ashville**
- 4. City of Margaret**
- 5. City of Moody**
- 6. City of Odenville**
- 7. City of Pell City**
- 8. Town of Ragland**
- 9. Town of Riverside**
- 10. City of Springville**
- 11. Town of Steele**

St. Clair County Mitigation Actions	
Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Plain Manager and FEMA's training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA

Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025

Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue to participate in the NFIP.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	As required
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing St. Clair County is a participating member of the NFIP and plans to continue.
Mitigation Action	Encourage CRS communities to conduct joint public outreach programs.
Goal	#1
Hazard(s) Addressed	Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Seek funding sources, such as Community Development Block Grant funds, to assist low income homeowners with building retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	

Funding Sources	CDBG; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Local Planning Mechanism	Flood Plain Manager; EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Local Government

Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Consider the enactment of a local ordinance or state law to require flood plain location disclosure when a property is listed for sale.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Distribute FEMA Publication 320- Taking Shelter from the Storm: Building a Safe Room in Your House- through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status:	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods

Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing St. Clair County has distributed public information materials promoting preparedness planning and actions for residents and businesses. Method: brochures, school videos; all hazard videos; newspaper ads; radio ads; football program inserts; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, preparedness for all-hazards- especially weather safety and weather events, training activities, etc. Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers. Very active preparedness on EMA Facebook and Twitter postings of articles, charts and tables, videos, and other emergency and preparedness info & graphics. Participation in radio talk shows.
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.

Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Animal Emergency Planning Brochures were ordered and made available to the public.
Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses.
Goal	#6

Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Flood Plain Manager
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best Management Practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	Flood
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low- income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA; Local

Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA actively promotes that every home and business have an emergency alert radio through various medians, including presentations and radio/television interviews.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	\$25 K HMGP/ADECA
Priority/Status	High, No longer relevant In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to more quickly address siren issues. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.
Mitigation Action	Maintain and test emergency warning sirens as needed.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	\$25K HMGP/ADECA
Priority/Status	High, New St Clair County will now only maintain and test the current inventory of sirens until they are no longer repairable locally (by County personnel). A public information campaign encouraging citizens to utilize

	<p>other means of receiving warnings is being pursued during this transition.</p> <p>Sirens are no longer reliable. Funding is being pursued for a mass notification system to warn the citizens of our county.</p>
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	<p>High, No longer relevant</p> <p>St. Clair County acquired several generators over the years and the municipalities have also. The County EMA maintains six (6) portable generators, four of which have light towers for use at needed locations following a disaster/emergency. Full generators support critical infrastructure/facilities such as: The County Administration Annex, City of Springville, and the City of Pell City. A generator was also acquired/installed by the Coosa Valley Water Supply. Several shelter sites have generator back-up.</p>
Mitigation Action	Maintain emergency generators for post- disaster mitigation and conduct routine tests on backup generators for all critical facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, New
Mitigation Action	Encourage the construction of safe rooms in new public buildings, such as new schools, libraries,

	community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing Municipalities and schools are strongly encouraged to install storm shelters and community safe rooms. Several community safe rooms and storm shelters were installed by schools and municipalities. Recent completions are: CEPA Center in Pell City, Margaret, Springville. Argo has applied for and been awarded a grant to install a community safe shelter. A complete list of current community safe shelters is posted on the EMA page of the County website, on an interactive map on the county website, and on the EMA FB page.
Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Safe Shelter grants. They are completed. No more grants awarded since that time.
Mitigation Action	Construct freestanding public safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding is available

Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Low, Ongoing St. Clair County EMA keeps a good library of current vendors/suppliers and installers of individual safe rooms & makes this info available to the public. EMA staff promote the idea of building safe rooms, especially for new construction homebuilders by the standard public information education initiatives.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding is available
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing St. Clair County EMA keeps a good library of current vendors/suppliers and installers of individual safe rooms & makes this info available to the public. EMA staff promote the idea of building safe rooms, especially for new construction homebuilders by the standard public information education initiatives.
Mitigation Action	Continue to provide adequate safe rooms and community shelters.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding is available
Estimated Cost	
Funding Sources	HMGP; ADECA; Local

Priority/Status	High, Ongoing During every single public information/education presentation, EMA staff encourage each city/community & Fire Departments in the county to work towards funding for adequate safe rooms/community shelters. Currently, we only have three cities that do not have a community safe room. Ashville, Moody and Ragland. Ashville and Ragland do have facilities with basements identified for citizens to take shelter. Moody has no safe shelter identified – no church with a basement.
Mitigation Action	Identify feasible structural projects to reduce flood damages along at problem areas throughout the county, in particular, the Trout Creek area along Hwy. 144 and the Hwy. 411 area in Odenville.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status B	Medium, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation	Install security measures at educational facilities
Goal	#1
Hazard(s)	Manmade
Local Planning Mechanism	St. Clair Co. BOE
Estimated Time Frame	One year from funding availability
Estimated Funding	\$500,000
Priority/Status	Local; HMGP
	Medium, New
Mitigation Action	Purchase emergency generators for post- disaster mitigation and conduct routine tests on backup generators for all critical educational facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$25,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, New
Mitigation Action	Encourage the construction of safe rooms within new school buildings, where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, New
Mitigation Action	Continue program to subsidize safe room construction in existing schools. Construct storm retrofits to educational buildings
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	\$400,000 each
Funding Sources	HMGP; ADECA

Priority/Status	High, New
Mitigation Action	Install freestanding public safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	\$100,000 - \$125,000 each
Funding Sources	HMGP; ADECA
Priority/Status	Low, New
Mitigation Action	Encourage the construction of storm shelters in new and existing construction. Construct/install individual storm shelters to educational buildings.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	\$5,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, New
Mitigation Action	Install security measures at St. Vincent's St. Clair
Goal	#1
Hazard(s) Addressed	Manmade
Local Planning Mechanism	St. Vincent's St. Clair
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	\$500,000
Funding Sources	Local; HMGP
Priority/Status	Medium, New
Mitigation Action	Purchase emergency generators for post- disaster mitigation and conduct routine tests on backup generators for all critical medical facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$25,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, New

Mitigation Action	Construct storm retrofits to medical buildings
Goal	#4
Hazard(s) Addressed	Thunderstorms, Tornados, High and Strong Winds
Local Planning Mechanism	St. Vincent's St. Clair
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	\$400,000 each
Funding Sources	Grants, local
Priority/Status	Medium, New

City of Argo's Mitigation Actions

Mitigation Action	Detailed plans and targeted studies.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	
	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	
	Continue to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	N/A
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Argo is a participating member of the NFIP and plans to continue.

Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, earthquakes, Sinkholes
Local Planning Mechanism	Flood Plain Manager; EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Distribute FEMA Publication 320 – Taking Shelter from the Storm: Building a Safe Room in your House – through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing The St. Clair County EMA covered this action during the past five years. St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers. Facebook and Twitter postings of articles, charts and tables, and other emergency and

	preparedness information. Participation in radio talk shows.
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing The St. Clair County EMA covered this action response during the past five years. Animal Emergency Planning Brochures were ordered and made available to the public.
Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6.
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local

Priority/Status	Medium, Ongoing The St. Clair County EMA covered this action response during the past five years. Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Flood Plain Manager
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing The St. Clair County EMA covered this action during the past five years. Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best Management Practices (BMP's) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	Flood
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Type	Emergency Services Protection
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing The St. Clair County EMA covered this action response during the past five years. The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Ongoing
Estimated Cost	
Funding Sources	\$25K HMGP/ ADECA
Priority/Status	High, Ongoing In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to more quickly address siren issues. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.

Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities, to include fire stations
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Construct freestanding public community safe rooms in vulnerable locations
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
	New
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Low, Ongoing A community safe room was installed using HMGP funding.
Mitigation Action	Encourage the construction/installation of safe rooms in new and existing construction, to include the fire stations and police stations
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Continue to provide adequate safe rooms and community shelters
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance. Particularly, the Argo Margaret Road's (County Road 6) main exit for the entire corner of the county needs to be widened and overhead foliage removed.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.

City of Asheville's Mitigation Actions

Mitigation Action	Seek an update of all FIRM'S in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Plain Manager and FEMA'S training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Continue to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Asheville is a participating member of the NFIP and plans to continue.
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and windstorms; require installation of “hurricane clips”
Goal	#1
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events
Goal	#1
Hazard(s) Addressed	All
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Seek funding sources, such as Community Development Block Grant funds, to assist low income homeowners with building retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	CDBG; ADECA; Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Local Planning Mechanism	Flood Plain Manager; EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.

Mitigation Action	Encourage the Multiple Listing Service (MLS) to require Flood Plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Distribute FEMA Publication 320– Taking Shelter from the Storm: Building a safe room in your house– through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local; HMGP
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing St. Clair County EMA provided this action response. St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers. Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.

Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing St. Clair County EMA provided this action response. Animal Emergency Planning Brochures were ordered and made available to the public.
Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Low, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing St. Clair County EMA provided this action. Brochures in the form of coloring books were distributed to schools.

Mitigation Action	Promote the use of weather radios in households and businesses
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Flood Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing The St. Clair County EMA provided this action response. Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best management practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMPG; ADECA; Local

Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
	New and Existing
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$30,000 each
Funding Sources	\$25K HGMP/ADECA
Priority/Status	High, Ongoing In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to more quickly address siren issues. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing

	No action was taken during the past five years due to lack of available funding.
Mitigation Action	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing Local government and education were strongly encouraged to install storm shelters and community safe rooms.
Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing St. Clair County EMA provided this action response. In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes.
Mitigation Action	Construct freestanding public community safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA

Estimated Time Frame for Completion	2025
Estimated Cost	\$150,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing St. Clair County EMA provided this action response. Strong media push to make residents aware of HMGP Storm Shelter grants as well as the importance of having a storm shelter were made on the radio and during public presentations, in newspaper articles, and posts on Facebook. In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes.
Mitigation Action	Continue to provide adequate storm shelters and community shelters
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Local Government; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$150,000 each
Funding Sources	HMGP; ADECA; Local

Priority/Status	High, Ongoing In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes. No community safe rooms were constructed/installed.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

City of Margaret's Mitigation Actions

Mitigation Action	Seek a county update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Enact a flood hazard prevention ordinance and establish Margaret as regular members of the NFIP.
Goal	#1
Hazard(s) Addressed	Flood/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	
Priority/Status	Completed Margaret is a member of the NFIP and has a flood prevention ordinance.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains predevelopment runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Make application and/or commit to participate in the NFIP.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing The City of Margaret is a member of the NFIP and will continue to participate.
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and windstorms; require installation of hurricane clips.
Goal	#1
Hazard(s) Addressed	Hurricanes, Tornadoes, Thunderstorms
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events.
Goal	#2
Hazard(s) Addressed	All
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Seek funding sources, such as Community Development Block Grant Funds, to assist low income homeowners with building retrofits to protect against flood damages.
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	CDBG; ADECA; Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Type	Public Education and Awareness
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Local Planning Mechanism	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Distribute FEMA Publication 320 – Taking Shelter from the Storm: Building a Safe Room in your House – through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	Low, Ongoing The City Clerk, Public Works Manager, and Building Inspector have and will continue distributing FEMA publications.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	<p>High, Ongoing</p> <p>St. Clair County EMA provided this action response. St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers.</p> <p>Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.</p>
Mitigation Action	Obtain free publications from FEMA, NWS.USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	<p>Medium, Ongoing</p> <p>St. Clair County EMA provided this action response. Animal Emergency Planning Brochures were ordered and made available to the public.</p>

Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Low, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing St. Clair County EMA provided this action response. Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses.
Goal	#6
Hazard(s) Addressed	ALL
Local Planning Mechanism	EMA; Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	\$30,000 each
Funding Sources	Local; HMGP; ADECA
Priority/Status	High, Ongoing The city tested the existing warning sirens on a monthly basis. They wish to upgrade sirens on an as needed basis.

Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	One year from funding availability
Estimated Cost	\$5,000 - \$15,000 each
Funding Sources	Local; HMGP; ADECA
Priority/Status	High, Ongoing The Margaret Fire and Rescue Station #1 currently has a backup generator in place that is tested and inspected periodically to ensure reliability. The city itself possesses several emergency generators that are in place for a post disaster mitigation event.
Mitigation Action	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing Margaret has installed a community safe room.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2020
Estimated Cost	\$5,000-\$10,000 each
Funding Sources	HMGP; ADECA
Priority/Status	No longer relevant
Mitigation Action	Construct freestanding public community safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2020
Estimated Cost	\$150,000 each
Funding Sources	HMGP; ADECA
Priority/Status	No longer relevant. Margaret installed a community safe room.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	No longer relevant.
Estimated Cost	\$5,000-\$10,000
Funding Sources	HMGP; ADECA
Priority/Status	No longer relevant.

Mitigation Action	Continue to provide adequate safe rooms and community shelters.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Local Government; EMA
Estimated Time Frame for Completion	2020
Estimated Cost	\$5,000 - \$150,000 each
Funding Sources	HMGP; ADECA, Local
Priority/Status	No longer relevant.

City of Moody's Mitigation Actions	
Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Manager and FEMA's training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Continue to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Moody is a participating member of the NFIP and plans to continue.
Mitigation Action	Develop a cyber security plan
Goal	#1
Hazard(s) Addressed	Human Caused
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local; HMGP
Priority/Status	High, New
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and windstorms; require installation of hurricane clips. Upgrade ordinances and building codes
Goal	#1
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events; upgrade ordinances and building codes
Goal	#1
Hazard(s) Addressed	All
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025

Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Seek funding sources, such as Community Development Block Grant Funds, to assist low income homeowners with building retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Flood/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	CDBG; Local; ADECA
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local

Priority/Status Benchmark	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Distribute FEMA publication 320 – Taking Shelter from the Storm: Building a Safe Room in your house – through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMPG; Local

Priority/Status	High, Ongoing St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers. Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing St. Clair County EMA provided this action response. Animal Emergency Planning Brochures were ordered and made available to the public.
Mitigation Action	Maintain local library repositories with the latest available publications.

Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Low, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing St. Clair County EMA provide this action response. Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses.
Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA; Flood Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best Management Practices (BMPs) for channel and drainage system maintenance
Goal	#3
Hazard(s) Addressed	All
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMPG
Priority/Status	High, Ongoing Moody has purchased an excavator and bull dozier for cleaning drainage areas.
Mitigation Action	Install four new outdoor warning systems in Moody
Goal	#5
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$60,000
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No outdoor warning systems have been installed in the past five years due to lack of funding.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5

Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$30,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No emergency warning sirens have been purchased in the past five years. The city continues seeking equipment and maintenance assistance.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on back-up generators for all critical facilities. Upgrade existing generators.
Goal	#5
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No generators have been purchased or upgraded in the past five years due to lack of funding.
Mitigation Action	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries,

	community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Point of Contact Person for this Action	EMA; Local Governments
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No community safe rooms have been installed in the past five years due to lack of funding.
Mitigation Action	Continue program to subsidize storm shelter construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing Nine individual storm shelters have been constructed/installed.
Mitigation Action	Construct freestanding public community safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$150,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No community safe rooms have been installed in the past five years due to lack of funding.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Point of Contact Person for this Action	EMA

Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No community safe rooms have been installed in the past five years due to lack of funding.
Mitigation Action	Continue to provide adequate storm shelters and community safe rooms.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Point of Contact Person for this Action	Local Government; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$150,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Nine individual storm shelters have been constructed/installed in the past five years. No community safe rooms have been installed in the past five years due to lack of funding.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

City of Odenville's Mitigation Actions	
Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Manager and FEMA's training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local

Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	

Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The City of Odenville is a participating member of the NFIP and plans to continue.
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and windstorms; require installation of “hurricane clips”
Goal	#1
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events
Goal	#1
Hazard(s) Addressed	All
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local

Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Seek funding sources, such as Community Development Block Grant funds, to assist low income homeowners with building retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	CDBG; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local

Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Distribute FEMA Publication 320 – Taking Shelter from the Storm: Building a safe room in your house – through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local; HMGP
Priority/Status Benchmark	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	

Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers. Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these

	materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Animal Emergency Planning Brochures were ordered and made available to the public.
Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly

Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best Management Practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low- income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA; Local

Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	\$25K HMGP/ADECA
Priority/Status	High, Ongoing In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to more quickly address siren issues. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Encourage the construction of safe rooms

	within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing One community safe room has been installed.
Mitigation Action	Continue program to subsidize storm shelter construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available.
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Construct freestanding public safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Low, Ongoing One community safe room was installed.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available

Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing One community safe room was installed.
Mitigation Action	Continue to provide adequate safe rooms and community shelters.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available.
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing One community safe room was installed.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer; Local Public Works
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.

City of Pell City's Mitigation Actions	
Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed FIRM Maps are available online and in City offices. The City continues to participate in NFIP. A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Manager and FEMA's training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The City continues to participate in NFIP, and staff actively participates in training related to this activity.
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA

Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Medium, Ongoing The City continues to participate in NFIP and maintains materials related to flood plain management for public review and consultation. These materials are also available online.
Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The City has adopted developmental policies that require a 0% stormwater runoff increase for new development. The City also continues to participate in the NFIP and engage in public education efforts on the subject.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA

Priority/Status	High, Ongoing The City has adopted developmental policies that require a 0% storm water runoff increase for new development. The City also continues to participate in the NFIP and engage in public education efforts on the subject.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing The City is a current member and participant in the CRS Program.
Mitigation Action	Continue to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Pell City continued membership in the NFIP in the past five years and wishes to do so in the next five years.
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and

	windstorms; require installation of hurricane clips.
Goal	#1
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The City plans to review its current building codes to ensure compliance with State mandates.
Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events.
Goal	#1
Hazard(s) Addressed	All
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The process for issuance of building permits, building code adoption, and construction inspection are all in place and will continue in perpetuity.
Mitigation Action	Seek funding sources, such as Community Development Block Grant Funds, to assist low income homeowners with building retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Flood/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025

Estimated Cost	
Funding Sources	CDBG; Local; ADECA
Priority/Status	Low, Ongoing No action in the past five years due to lack of funding.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing The Flood Plain Manager provides information to property owners as requested, in addition to making such information available online.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The City makes printed information available and includes information on its City website.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.

Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action in the past five years due to lack of funding.
Mitigation Action	Distribute FEMA publication 320 – Taking Shelter from the Storm: Building a Safe Room in your house – through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing The City plans to make this information available on its website and in printed form.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	Medium, Ongoing The City currently makes FIRM information available as requested and promotes online resources on the subject via its website.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing St. Clair County has distributed public information materials promoting preparedness planning and actions for residents and businesses. Method: brochures, school videos; all hazard videos; newspaper ads; radio ads; football program inserts; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, preparedness for all-hazards- especially weather safety and weather events, training activities, etc. Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers. Very active preparedness on EMA Facebook and Twitter postings of articles, charts and tables, videos, and other emergency and preparedness info & graphics. Participation in radio talk shows.
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing FEMA Firm maps are available at the local public library. The City will seek to improve these offerings further in subsequent years.

Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Low, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	Fire Department; EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing The Fire Department has promoted the use of weather radios in households and businesses by distributing weather radios. They would like to continue this practice. Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best management practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	No longer relevant
Estimated Cost	
Funding Sources	HMGP
Priority/Status	No longer relevant
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	No longer relevant.
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	No longer relevant.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Fire Department

Estimated Time Frame for Completion	2025
Estimated Cost	\$30,000 each
Funding Sources	\$25K HGMP/ADECA
Priority/Status	High, Ongoing Maintain the current level of service provided by the emergency warning systems. Seek to promote more effective warning alternatives. No sirens were purchased or installed during the past five years due to lack of funding.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing St. Clair County acquired several generators as part of the CSEP Program Closeout and signed them over to County and Municipal entities to include: County Commission for use at the County Administration Annex, City of Springville, and the City of Pell City. The City of Pell City has acquired several surplus light tower/generator units that will be useful for post-disaster activities. Further units are needed.
Mitigation Action	Encourage the construction/installation of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	One year from grant award of funding
Estimated Cost	\$100,000 - \$125,000 each

Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The Community Storm Shelter at CEPA was opened in 2015. Further community shelters are desired to provide adequate coverage.
Mitigation Action	Continue program to subsidize storm shelter construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes.
Mitigation Action	Construct/install freestanding public community safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$150,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No safe rooms were constructed/installed during the past five years due to lack of funding.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4

Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing Strong media push to make residents aware of HMGP Individual Storm Shelter and Community Safe Room grants as well as their importance were made on the radio and during public presentations, in newspaper articles, and posts on Facebook.
Mitigation Action	Continue to provide adequate storm shelters and community safe rooms
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Local Government; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$150,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes. No community safe room was constructed or installed due to lack of funding.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Street Department
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local

Priority/Status	High, Ongoing The Street Department is actively working on maintaining drainage system.
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Town of Ragland's Mitigation Actions

Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Enact a flood hazard prevention ordinance and establish Ragland as regular members of the NFIP.
Goal	#1
Hazard(s) Addressed	Flood/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	Local; HMGP
Priority/Status	Completed Ragland is a member of the NFIP and has a flood prevention ordinance.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains predevelopment runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	HMGP; ADECA

Priority/Status	High, Completed
Mitigation Action	Make application and/or commit to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing
	Ragland is a participating member of the NFIP and plans to continue.
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and windstorms; require installation of hurricane clips.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	No longer relevant.
Estimated Cost	
Funding Sources	Local
Priority/Status	No longer relevant.
	Local jurisdiction has decided against this mitigation action; therefore, action is being deleted from this plan update.
Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events.
Goal	#1
Hazard(s) Addressed	All
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	No longer relevant.
Estimated Cost	

Funding Sources	Local
Priority/Status	No longer relevant. Local jurisdiction has decided against this mitigation action, as they have no Building Inspector; therefore, action is being deleted from this plan update.
Mitigation Action	Seek funding sources, such as Community Development Block Grant Funds, to assist low income homeowners with building retrofits to protect against flood damages.
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	CDBG; ADECA; Local
Priority/Status	Medium, Completed
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Local Planning Mechanism	Flood Plain Manager; EMA
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Completed
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Completed
Mitigation Action	Distribute FEMA publication 320 – Taking Shelter from the Storm: Building a Safe Room in your house – through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	No longer relevant.
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	No longer relevant. Local jurisdiction has decided against this mitigation action; therefore, action is being deleted from this plan update.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6

Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers. Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly

Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Animal Emergency Planning Brochures were ordered and made available to the public.
Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Flood Plain Manager
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best Management Practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	Medium, Ongoing The town continually seeks technical assistance for channel and drainage system maintenance, as they keep ditches and storm drains cleared.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA; Local

Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	\$25K HMGP/ADECA
Priority/Status	High, Ongoing In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to address siren issues more quickly. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA

Priority/Status	High, Ongoing The Town of Ragland has applied several times for grants, but no responses were received. It is our assumption that these projects were not prioritized high enough by the state EMA to be awarded.
Mitigation Action	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes.

Mitigation Action	Construct freestanding public safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	No longer relevant.
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	No longer relevant. Local jurisdiction has decided against this mitigation action; therefore, action is being deleted from this plan update.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue to provide adequate safe rooms and community shelters.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly as funding becomes available
Estimated Cost	
Funding Sources	HMGP; ADECA; Local

Priority/Status	High, Ongoing In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes. No community safe rooms were installed/constructed.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.

Town of Riverside's Mitigation Actions	
Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Plain Manager and FEMA's training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	

Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Medium, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Continue to participate in the NFIP.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025

Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing The City of Riverside is a participating member of the NFIP and plans to continue.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	FL
Local Planning Mechanism	NFIP Coordinator
Estimated Time Frame for Completion	2025
Estimated Cost	N/A
Funding Sources	Local
Priority/Status	Medium, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and windstorms; require installation of hurricane clips.
Goal	#1
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events
Goal	#1

Hazard(s) Addressed	All
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Seek funding sources, such as Community Development Block Grant funds, to assist low income homeowners with building retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	CDBG; ADECA; Local
Priority/Status	Medium, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding,

	sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Local Planning Mechanism	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Distribute FEMA Publication 320– Taking Shelter from the Storm: Building a safe room in your house–through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local; HMGP

Priority/Status	Low, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	Medium, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	<p>High, Ongoing</p> <p>St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers.</p> <p>Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.</p>
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	<p>Medium, Ongoing</p> <p>Animal Emergency Planning Brochures were ordered and made available to the public.</p>

Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Flood Manager
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local

Priority/Status	High, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best management practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	High, Ongoing No action in past five years due to lack of funding.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMPG; ADECA; Local
Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.

Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$30,000 each
Funding Sources	\$25K HGMP/ADECA
Priority/Status	High, Ongoing In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to address siren issues more quickly. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The Fire Department has secured a natural gas generator for the fire station and is awaiting hookup to the building. One of the two pump houses have been outfitted with a generator and is operational.
Mitigation Action	Encourage the construction of safe rooms within new public buildings, such as new schools,

	libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The city has completed one FEMA approved community safe room at the City Complex.
Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The city received 3 individual storm shelter applications and 1 individual storm shelter has been successfully constructed.
Mitigation Action	Construct freestanding public community safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$150,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The city has completed one FEMA approved community safe room at the City Complex.

Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing The city has completed one FEMA approved community safe room at the City Complex.
Mitigation Action	Continue to provide adequate safe rooms and community shelters
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Local Government; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$150,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing The city has completed one FEMA approved community safe room at the City Complex. The city received 3 individual storm shelter applications and 1 individual storm shelter has been successfully constructed.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action in past five years due to lack of funding.

City of Springville's Mitigation Actions	
Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Manager and FEMA's training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025

Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods

Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Springville is a participating member of the NFIP and plans to continue.
Mitigation Action	Evaluate building code standards for roof construction to assure protection against wind damage from hurricanes, tornadoes, and windstorms; require installation of hurricane clips.
Goal	#1
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events.
Goal	#1
Hazard(s) Addressed	All
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Seek funding sources, such as Community Development Block Grant Funds, to assist low income homeowners with building retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Flood/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	CDBG; Local; ADECA
Priority/Status	Low, Ongoing Applied for a CDBG to mitigate some flooding/drainage issues in the area of Mountain Drive and Cross Street.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local

Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Distribute FEMA publication 320 – Taking Shelter from the Storm: Building a Safe Room in your house – through building permit and inspection offices.

Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications, newspaper announcements, city's website, and other social media.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	<p>High, Ongoing</p> <p>St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers.</p> <p>Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.</p>
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#4
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	<p>Medium, Ongoing</p> <p>Animal Emergency Planning Brochures were ordered and made available to the public.</p>

Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Low, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Flood Manager
Estimated Time Frame for Completion	Yearly
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best management practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMPG; ADECA; Local

Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$30,000 each
Funding Sources	\$25K HGMP/ADECA
Priority/Status	High, Ongoing In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to address siren issues more quickly. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 each
Funding Sources	HMGP; ADECA

Priority/Status	High, Ongoing City of Springville has installed a backup generator at Fire Stations #1 & 2, installed a permanent generator at Sewer Lift Station on Marietta Rd and has obtained portable generator to use a water pumping stations. Need additional generator for City Hall and Police Station.
Mitigation Action	Encourage the construction/installation of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible, to include fire stations, police stations, and utility facilities, etc.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing City of Springville has purchased and installed a safe room for personnel at Springville Fire Station #2.
Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000 each
Funding Sources	HMGP; ADECA

Priority/Status	High, Ongoing In 2011/2012, St. Clair County applied for and was awarded 7 HMGP Individual Storm Shelter grants resulting in 69 approved individual storm shelter applications. 47 of the 69 approved shelters have been installed as of March 2014. These shelters went into existing homes, outside of existing homes (in-ground), and in new homes.
Mitigation	Construct freestanding public community safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$400,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing Completed construction of community safe room on Village Springs Road.
Mitigation Action	Encourage the construction/installation of safe rooms in new and existing construction, to include fire stations, police stations, and utility facilities, etc.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000
Funding Sources	HMGP; ADECA

Priority/Status	High, Ongoing Completed installation of storm shelter at Fire Station #2 for fire department personnel. In process of constructing two additional community safe rooms: one located at Fire Station #1 and the other at the new sports complex on Springville Station Blvd. Completed installation of four individual storm shelters by citizens and the 5 th one is underway.
Mitigation Action	Continue to provide adequate safe rooms and community shelters, to include fire stations, police stations, and utility facilities, etc.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Local Government; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$150,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Both community safe rooms and individual storm shelters have been installed/constructed. The City wishes to continue this practice as funding becomes available.
Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance. Make drainage improvements near the Elementary and Middle Schools. New: Make drainage improvements near the Senior Center on Robinson Street.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing, New Completed stormwater abatement project along Hwy. 11 at Old Talladega Road.

Town of Steele's Mitigation Actions	
Mitigation Action	Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer; Flood Plain Manager
Estimated Time Frame for Completion	Completed
Estimated Cost	
Funding Sources	FEMA Map Update Program
Priority/Status	Completed A risk map project has been done recently and preliminary maps are available in the FEMA map service center.
Mitigation Action	Train local flood plain managers through programs offered through the State Flood Manager and FEMA's training center in Emmitsburg, Maryland.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Maintain a library of technical assistance and guidance materials to support the local flood plain manager.
Goal	#1
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA

Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the adoption of a uniform flood hazard prevention ordinance with higher regulatory standards that discourage flood plain development and seek to maintain the natural and beneficial functions of flood plains.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Consider the adoption of a uniform storm water management ordinance that maintains pre-development runoff rates.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Apply for and maintain membership in the CRS Program.
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025

Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue to participate in the NFIP
Goal	#1
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing Steele is a participating member of the NFIP and plans to continue.
Mitigation Action	Seek funding sources, such as Community Development Block Grant Funds, to assist low income homeowners with building retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Flood/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	CDBG; Local; ADECA
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Provide technical assistance to owners of pre-FIRM buildings to advise on available retrofits to protect against flood damage.
Goal	#2
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Flood Plain Manager

Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA; Local
Priority/Status	Low, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Promote the purchase of insurance coverage by property owners and renters for flooding, sinkhole, and earthquake damages in high risk areas.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods, Earthquakes, Sinkholes
Point of Contact Person for this Action	Flood Plain Manager; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing The county has posted information on their Facebook page and in Public Information presentations.
Mitigation Action	Encourage the Multiple Listing Service (MLS) to require flood plain location disclosure as a condition for each real estate listing.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Point of Contact Person for this Action	Local Government
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Distribute FEMA publication 320 – Taking Shelter from the Storm: Building a Safe Room in

	your house – through building permit and inspection offices.
Goal	#6
Hazard(s) Addressed	Thunderstorms, Tornadoes, Hurricanes, Tropical Storms, Tropical Depressions, High Winds, Strong Winds
Point of Contact Person for this Action	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.
Goal	#6
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local
Priority/Status	Medium, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue the active programs and activities of the St. Clair County EMA to promote mitigation and severe weather awareness.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	<p>High, Ongoing</p> <p>St. Clair County has distributed public information materials for the CSEPP Campaign to include: brochures in English and Spanish; zone maps; school brochures; school videos; all hazard videos; newspaper ads; television ads; radio ads; I-20 billboard; football program ads; and stadium fence sign ads. In addition: numerous newspaper articles about any subject concerning the safety and well-being of county residents, especially weather safety and weather events, CSEPP activities, hazardous materials accidents, training activities, etc.; full page newspaper ad (Be Prepared); Duran Jr. High volleyball team flyer; church flyer, Are You Prepared?; Food World pharmacy bags; Amateur Radio Field Day flyer; Webpage on county website; On Hold phone messages; county newsletter; Emergency Information Guide; 72 & You logo design; County Health Fairs; PR items distributed – pens, notebooks, rulers, bags, etc.; Special Pops items included: Caregivers Resource Guide and Masters of Disaster kits; and submitted and/or approved all special needs newsletters/info sheets/flyers.</p> <p>Facebook and Twitter postings of articles, charts and tables, and other emergency and preparedness information. Participation in radio talk shows.</p>
Mitigation Action	Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	<p>Medium, Ongoing</p> <p>Animal Emergency Planning Brochures were ordered and made available to the public.</p>

Mitigation Action	Maintain local library repositories with the latest available publications.
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Low, Ongoing Per coordination with each library, items are made available to the public.
Mitigation Action	Distribute hazard mitigation brochures to area schools for distribution to students.
Type	Public Education and Awareness
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	Medium, Ongoing Brochures in the form of coloring books were distributed to schools.
Mitigation Action	Promote the use of weather radios in households and businesses
Goal	#6
Hazard(s) Addressed	All
Local Planning Mechanism	EMA; Flood Manager
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; Local

Priority/Status	High, Ongoing Weather Alert Radios were distributed to all residents of St. Clair County as part of the 2009 CSEP Program Closeout. Radios were distributed until depleted in 2013. The EMA strongly promoted the use of weather alert radios on radio talk shows, during public presentations, in newspaper article and on Facebook and Twitter.
Mitigation Action	Seek technical assistance through the Alabama Cooperative Extension System with Best management practices (BMPs) for channel and drainage system maintenance.
Goal	#3
Hazard(s) Addressed	All
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Support the Alabama Skywarn Foundation efforts to distribute weather radios to low-income households, especially in rural areas outside of siren coverage areas.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMPG; ADECA; Local

Priority/Status	High, Ongoing The EMA is not aware of any weather alert radios being distributed in St. Clair County by the Alabama Skywarn Foundation; however, St. Clair County EMA distributed these radios to all residents of the county as part of the CSEP Program Closeout in 2009 and 2010 until the stock was depleted in 2013.
Mitigation Action	Purchase, install, and test emergency warning sirens, as needed. Upgrade existing equipment as needed.
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$30,000 each
Funding Sources	\$25K HGMP/ADECA
Priority/Status	High, Ongoing In 2005 and 2006, St. Clair County used HMGP funds to install 8 Vortex Sirens and 1 Tone Only Vortex Siren. In 2010, St. Clair County upgraded 25 sirens from WPS 2800 to WPS 2900 series. In 2012, St. Clair County sent county employees to Whelen to learn basic siren maintenance to reduce overall maintenance cost and to be able to more quickly address siren issues. St. Clair County purchased a bucket truck and tools to perform maintenance on siren systems.
Mitigation Action	Purchase emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities
Goal	#5
Hazard(s) Addressed	All
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 each
Funding Sources	HMGP; ADECA

Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA; Local Governments
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue program to subsidize safe room construction in existing homes.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Construct freestanding public community safe rooms in vulnerable locations.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$150,000 each
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Encourage the construction of safe rooms in new and existing construction.
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$10,000
Funding Sources	HMGP; ADECA
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.
Mitigation Action	Continue to provide adequate safe rooms and community shelters
Goal	#4
Hazard(s) Addressed	Tornadoes, Thunderstorms, Hail
Local Planning Mechanism	Local Government; EMA
Estimated Time Frame for Completion	2025
Estimated Cost	\$5,000 - \$150,000 each
Funding Sources	HMGP; ADECA; Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

Mitigation Action	Prepare and implement standard operating procedures for drainage system maintenance.
Goal	#4
Hazard(s) Addressed	Floods/Flash Floods
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2025
Estimated Cost	
Funding Sources	Local
Priority/Status	High, Ongoing No action was taken during the past five years due to lack of available funding.

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 East Alabama Regional Planning and Development Commission (EARPDC) will facilitate plan maintenance activities with assistance from the AEMA Division G Regional Coordinator, local EMA directors, and the Regional Planning Commission of Greater Birmingham (RPCGB) 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 similar stakeholder groups. Periodic review and revision 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. Review and revision of the Hazard Mitigation Plan may occur through the following two procedures:

Annual Review Process

On at least an annual basis, each participating county EMA official shall facilitate a meeting in their respective county and include local jurisdictions and other stakeholders, such as the Local Emergency Planning Committee. The exact meeting process in each participating county will be slightly different. At a minimum, the scope of the annual county-level 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. The general public will be invited to attend this meeting through public outreach, as further described in Section 6.3 below, and encouraged to provide their input into the annual review.

Subsequently, a regional meeting between EARPDC, local EMA officials, AEMA Division G Coordinator, and regional stakeholders will be held to review information collected at the county-level meetings and revise the plan. It is viewed appropriate by the local EMA directors that this meeting shall normally coincide with an AEMA Division G quarterly meeting. Any major revision made to the Hazard Mitigation Plan that affects the region as a whole will be distributed to all jurisdictions for adoption in a public session. Otherwise, any project added to a specific Jurisdictional Mitigation Action Plan will be adopted by that specific jurisdiction in a public session.

Emergency Review Process

In certain instances, such as a disaster occurrence impacting a participating jurisdiction, the full Annual Review Process may not be timely enough to address unforeseen issues created by a particular event. In these situations, a county EMA official may facilitate a county-level plan review meeting, similar to the process described above in the Annual Review Process, with the requisite public outreach. Once this meeting is completed, a local amendment may be adopted by a participating jurisdiction that only pertains to the revision of their specific Jurisdictional Mitigation Action Plan in a public session. After any local amendment, the local county EMA official shall submit documentation of the local amendment to the Chair of the plan monitoring and review process.

Five-Year Plan Update

Before the five-year expiration of the Hazard Mitigation Plan, a thorough review, beginning approximately 18 months prior to plan expiration, shall be held to determine any significant changes in the AEMA Division G planning area that may affect the region's vulnerability to hazard impacts, and an evaluation of the mitigation strategy and jurisdictional mitigation action plans developed as part of this process. The one AEMA Division G county not fully inserted into this plan (Shelby County) will be approached about possible inclusion in future updates. This plan update shall incorporate any changes to federal or state regulations that may affect the Hazard Mitigation Plan contents. The plan update process will follow a locally driven, public process, similar to the plan review processes outlined above.

In addition, multiple state, regional, and local partners will be consulted to provide data or consultation in plan formation. Consulting entities will include: the U.S. Army Corps of Engineers, Alabama Forestry Commission, Geological Survey of Alabama (GSA), Alabama Department of Public Health (ADPH), Alabama Department of Transportation (ALDOT), Alabama Department of Environmental Management (ADEM), Alabama Historical Commission (AHC), neighboring county EMA offices, regional academic providers, and private sector entities, such as local chambers of commerce and the American Red Cross. 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 Division G 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, subdivision regulations, building regulations, capital improvement plans, or similar mechanisms. Local EMA officials or planning staffs of the appropriate regional planning council will provide technical assistance for incorporation, upon request. 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. During county-level plan reviews,

participating communities will be asked to record the planning documents in which elements of the Hazard Mitigation Plan were incorporated. Since the last plan update, In the past five years, jurisdictions in the planning area have integrated the hazard mitigation plan into their decision-making processes by referring to the plan when issues arise. The plan was also consulted with the update or creation of comprehensive plans, future land use plans, and subdivision regulations.

The Hazard Mitigation Plan will also be provided to the East Alabama Regional Planning and Development Commission (EARPDC) and the Regional Planning Commission of Greater Birmingham (RPCGB) 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 monitoring and review of the existing plan, and development and adoption of future plans, is a very important component. Though concerted efforts were made to engage the general public in the hazard mitigation planning process through multiple county-level meetings that were advertised through several methods, there were very few unaffiliated members of the public that participated. Efforts will increase 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, amendments, or updates to the Hazard Mitigation Plan shall be discussed in open meetings prior to any adoption procedures. Any plan updates or major revisions will be adopted during a public session. 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 (e.g. libraries and government buildings), booths at local Severe Weather Expo events, social media such as local Facebook pages, telephone messages, and various websites such as local EMA offices, EARPDC, and Open Meetings websites. EARPDC 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. EARPDC 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

Appendix B: Documentation of Participation and Public Involvement

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

1. Randolph County
2. St. Clair County

**Randolph County Emergency Management Agency Local Emergency
Planning Committee Meeting- June 23, 2020**

LEPC Members present on the conference call:

- Donnie Knight
- Donnie Strain
- Sheriff David Cofield
- Nathaniel Morrow
- Frances Williamson

Also, on the call:

- Karla Seago with 911
- Investigator James Bailey
- Chief Deputy Donnie Grant

Donnie Knight thanked everyone for being on the call. A conference call had to be conducted due to the COVID-19 pandemic.

Donnie Strain gave an update on the dive team for Randolph County. They had a young man that jumped off rocks into 50 to 60 feet of water with forest underneath the water and he didn't resurface. It took them 3 days to locate him. They had some people donate money to the dive team to help them be able to purchase in the future better safety equipment and underwater communications equipment for the divers. They also want to purchase an underwater robot with a camera. They plan on having their divers to participate in 3 to 4 days of training, so they'll be certified as public service divers.

Sheriff David Cofield gave an update on the new jail being built. The construction part of the jail should be complete by the end of July. The biggest hold up is the internet getting installed. Everything should be fully operational by October or November of this year. Additional staff will have to be hired to run the new jail. He said possibly 6 to 8 more.

Karla Seago gave an update on 9-1-1. They have updated their internet and they now have a mobile command unit set up at Wedowee VFD that is fully capable of handling 9-1-1 calls in case they were to have to quarantine from the 9-1-1 building. They also have CAD system up and shows how many calls come into the county.

Donnie Knight discussed the HAM Radio Club event coming up this weekend Saturday and Sunday at Transco. He also discussed the mosquito spraying program. All the cities and towns have paid their funds and he should be able to start spraying next week throughout the county.

Donnie Knight discussed our Hazard Mitigation Plan and let everyone know that Shelby Brown with East Alabama Regional Planning and Development Commission was on the call to answer any questions about the Hazard Mitigation Plan since she is the one that has wrote our new plan. No one had any questions. Frances Williamson said the plan was great. Donnie Knight thanked everyone for being on the call and then dismissed.

Randolph County Emergency Management Agency Hazard Mitigation Plan Meeting- June 24, 2020

Donnie Knight conducted a Hazard Mitigation Plan meeting for all the Towns and the City of Roanoke in Randolph County, Alabama by having a conference call on Wednesday, June 24, 2020. A conference call had to be conducted due to the COVID-19 pandemic.

The following people were present on the call:

- Randolph County EMA Director Donnie Knight
- Town of Woodland Mayor Scott Carter
- Town of Wedowee Mayor Tim Coe
- Police Chief Jay Stone
- Town Clerk Susan Cooper
- Town of Wadley Town Clerk Lori Hopkins & Assistant Clerk Nikki Houston
- City of Roanoke Mayor Mike Fisher
- City Clerk Pat Truitt
- Police Chief Adam Melton and Roanoke Fire Chief Ronald Cameron
- Shelby Brown with EARPDC

Donnie Knight discussed what the process of handling the Hazard Mitigation Plan is after Shelby Brown with East Alabama Regional Planning and Development Commission (EARPDC) has completed the plan. They will send it down to AEMA to be reviewed and if they're not satisfied with it, then we may have to have another meeting. When AEMA is satisfied with the plan, they will send it to FEMA for them to review it. If FEMA is satisfied with it then the plan will be good for the next 5 years. Donnie discussed how this is a Division plan and not just a Randolph County plan. He explained how we could make an amendment to the plan later if we need too.

Donnie ask if anyone needed to change anything about the Hazard Mitigation Plan: Mayor Scott Carter didn't have anything.

Mayor Tim Coe was comfortable with their part of the plan.

Donnie talked to Mayor Donna McKay of Wadley and she was good with their part.

Mayor Mike Fisher said everything looks fine with their part of the plan.

Shelby said she was on the call if anyone had a question about the plan, which she intends on submitting to AEMA on July 1, 2020.

Donnie thanked everyone for participating in the conference call and for their part of working on the plan updates.

Randolph County Emergency Management Agency
Public Notice Meeting
Teleconference Call
6/25/2020

- The Public Hearing call was held on time, with only Donnie Knight, EMA Director, and Shelby Brown, EARPC, present.
- The call line open for over 5 minutes to give ample time for response.
- We asked for a last call at 10:07 with no one responding.
- We ended the call and Shelby was to proceed with the plan

NOTICE

The Randolph County Emergency Management Agency gives a public notice that hearings will be held to discuss Randolph County's Hazard Mitigation Plan.

- **A LEPC Meeting will be held June 23rd**
- **A Town and City Meeting on June 24th**
- **A public hearing on June 25th**

All will be held at 10:00 A.M., and all are public meetings.

The meetings are being held via teleconference, and can be joined by dialing 720-712-7963.

If you would like to speak at the public hearing on June 25th, or if you would like a copy of the Hazard Mitigation Plan, please email Shelby Brown at:
shelby.brown@earpdc.org.

**St. Clair County Emergency Management Agency-Agenda and Talking
Points for
Hazard Mitigation Plan Phone Conferences**

- **INTRODUCTIONS/SIGN IN**
- **HAZMIT PLAN HISTORY IN ST. CLAIR COUNTY**
 - 2004 – First HazMit Plan developed using hazards identified in EOP
 - 2010 – FEMA Approved plan
 - 2015 – Incorporated Lessons Learned from April 2011 tornadoes and several flood events into the THIRA and HazMit Plan. (THIRA – Threats and Hazards Identification and Assessment).
- **PURPOSE/GOAL OF HAZMIT PLAN**
 - To identify and take mitigation actions to prevent or reduce damages.
 - Goals: Section 5.2 (page 84)

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).

- Strategies: Section 5.3 page 84

- **PLAN DEVELOPMENT (2020)**
 - Began in 2016 as changes were developed and published to 2015 plan
 - First Planning Team Meeting held in June 2019
 - AEMA Division G made a decision to create a Regional Plan instead of individual County Plans.
 - East Alabama Regional Multi-Jurisdictional Hazard Mitigation Plan.

 - Contractor selected by the Division is:
 - East Alabama Regional Planning & Development Commission
 - Shelby Brown is our Regional Planner for the Commission

- **SPECIFIC MITIGATION ACTIONS FOR ST CLAIR COUNTY**
 - Section 5.5.3 (page 111)

- **IDENTIFIED ISSUES/COMMENTS?**
 - None identified

- **FINAL COMMENTS**

Attendance Lists

- **LEPC Teleconference 6/26/2020**

- Attendees

- Bryan Schaefer – St Clair County EMA
 - 205-884-6800
 - bryans@stcema.org
- Shelby Brown – East Alabama Regional Planning and Development Commission
 - 770-550-7898
 - shelby.brown@earpdc.org
- NOTE: No one else joined the call within 15 minutes of the advertised start time.

- **Municipalities & Schools Teleconference- 6/29/2020**

- Attendees

- Bryan Schaefer – St Clair County EMA
 - 205-884-6800
 - bryans@stcema.org
- Shelby Brown – East Alabama Regional Planning and Development Commission
 - 770-550-7898
 - shelby.brown@earpdc.org
- Patrice Kurzejeski – St Clair County EMA Director
 - 205-473-4312
 - Patricek@stcema.org
- Tina Morgan – St Clair County Administrator
 - 205-594-2100
 - tmorgan@stclairco.com
- Dan Dahlke – St Clair County Road Department
 - (205) 594-2482
 - jddahlke@stclairco.com
- Clay Phillips – St Clair County Road Department
 - (205) 594-2483
 - cphillips@stclairco.com
- Jeanette Jueckstock – City of Pell City
 - (205) 338-5210
 - jjueckstock@cityofpellcity.net
- Tammy Crow – St Clair EMA/E911 Business
 - 205-473-4312
 - tammyc@stcema.org
- Aislinn Campbell – E911 Business Office

- 205-884-9911
- acampbell@stclairco.com
- Greg Gossett – City of Pell City Street Department
 - (205) 473-6209
 - ggossett@cityofpellcity.net

- **Public Teleconference- 6/30/2020**

- Attendees

- Bryan Schaefer – St Clair County EMA
 - 205-884-6800
 - bryans@stcema.org
- Shelby Brown – East Alabama Regional Planning and Development Commission
 - 770-550-7898
 - shelby.brown@earpdc.org
- NOTE: No one else joined the call within 15 minutes of the advertised start time.

Ad Proof

This is the proof of your ad scheduled to run on the dates indicated below. Please proofread carefully and if changes are needed, contact us prior to deadline at (256) 734-2131 or email at debbiem@cullmantimes.com.

DATE 06/18/20

PUBLIC NOTICE

"The St. Clair County Emergency Management Agency hereby gives a public notice that meetings will be held to discuss St. Clair County's Hazard Mitigation Plan. A LEPC Meeting will be held June 26th, a Municipality/Schools Meeting on June 29th, and a public hearing on June 30th. All will be held at 10:00 A.M., and all are public meetings. The meetings are being held via teleconference, and can be joined by dialing 720-712-7963. If you would like to speak at the public hearing on June 30th, or if you would like a copy of the Hazard Mitigation Plan, please email Shelby Brown at shelby.brown@earpdc.org."

St. Clair News-Aegis
June 25, 2020