

HAZARD MITIGATION PLAN

FOR

**HENRY COUNTY,
ALABAMA**

(2009 UPDATE DRAFT)

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Section 1 – Hazard Mitigation Plan Background

Section Contents

- 1.1 Introduction
- 1.2 Authority
- 1.3 Funding
- 1.4 Scope
- 1.5 Purpose

Section	Section Updates
1.x	<ul style="list-style-type: none">• Changes in section numbering
1.1	<ul style="list-style-type: none">• Incorporated former “Section I-A”
1.2	<ul style="list-style-type: none">• Incorporated former “Section I-B”• Added update language
1.3	<ul style="list-style-type: none">• Incorporated former “Section I-C”• Added SEARP&DC in funding assistance
1.4	<ul style="list-style-type: none">• Incorporated former “Section I-D”
1.5	<ul style="list-style-type: none">• Incorporated former “Section I-E”

1.1 Introduction

The Henry County Hazard Mitigation Plan is a multi-jurisdictional plan that details several natural hazards that threaten Henry County and its municipalities. 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).

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 by November 1, 2004 and updated every five years.

1.3 Funding

Funding for the Henry County Hazard Mitigation Plan was made available through the Hazard Mitigation Grant Program (HMGP), the Henry County Commission, and the Southeast Alabama Regional Planning and Development Commission (SEARP&DC). The Alabama Emergency Management Agency (AEMA) and Alabama Association of Regional Councils (AARC) entered into an agreement to prepare these plans for many counties in Alabama. Additionally, the Southeast Alabama Regional Planning and Development Commission (SEARP&DC) entered into an additional agreement with Henry County. The SEARP&DC and the Henry County Emergency Management Agency facilitated the development of the plan.

1.4 Scope

The Henry County Hazard Mitigation Plan includes all incorporated and unincorporated areas in Henry County. The plan addresses all natural hazards identified by the Federal Emergency Management Agency. All hazards that may affect Henry County and its residents are analyzed. Hazard mitigation strategies are discussed in terms of short term and long term goals. Responsibility for implementation of strategies is discussed and possible funding sources are identified.

1.5 Purpose

The Henry County Hazard Mitigation Plan is an effort to evaluate and identify all natural hazards which may affect Henry County. It presents mitigation strategies that address the hazards identified. This plan is only one of many steps Henry County will take to protect the welfare of residents by achieving a safer environment for its residents.

Section 2 - Henry County Profile

Section Contents

- 2.1 Geology
- 2.2 Transportation
- 2.3 Economy
- 2.4 Utilities
- 2.5 Social and Economic Characteristics

Section	Section Updates
2.x	<ul style="list-style-type: none">• Changes in section numbering
2.1	<ul style="list-style-type: none">• Incorporated former “Section II-A”
2.2	<ul style="list-style-type: none">• Incorporated former “Section II-B”
2.3	<ul style="list-style-type: none">• Incorporated former “Section II-C”• Changed table to reflect more current employer numbers
2.4	<ul style="list-style-type: none">• Incorporated former “Section II-D”• Added utility providers that were not listed prior
2.5	<ul style="list-style-type: none">• Incorporated former “Section II-E”• Utilized recent demographic estimates where possible along with using data from the Economic Development Partnership of Alabama (EDPA)

Henry County is located in Southeast Alabama. The County has a total land area of 561.8 square miles. Henry County is bordered to the west by Dale County, to the north by Barbour County, to the east by the State of Georgia, and to the south by Houston County (Figure 2.1). Henry County was created on December 13, 1819, being formed from Conecuh County.

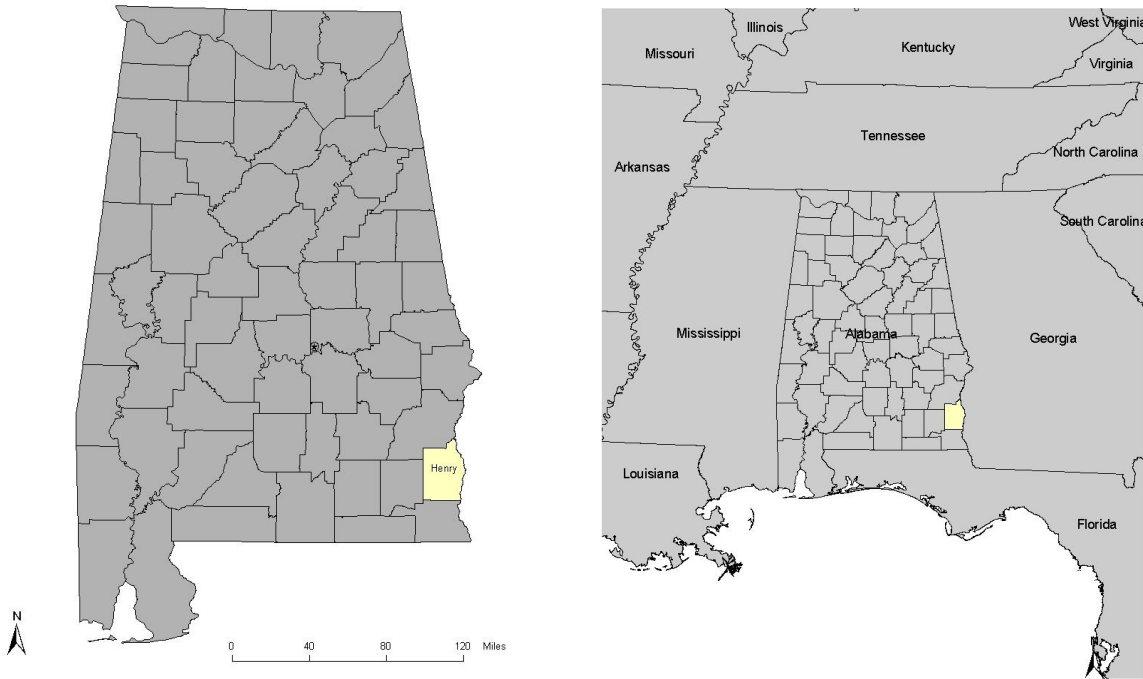


Figure 2.1: Henry County Relative to Alabama and the Southeast United States

2.1 Geology

Henry County lies in the East Gulf Coastal Plain physiographic province. The geologic formations that outcrop in Henry County include Residuum, Lisbon, Tallahatta, Hatchetigbee, Tusahoma, Nanafalia, Clayton, and Providence Sand Formations. The geology is sedimentary in nature (Soil Survey of Henry County, AL).

2.2 Transportation

Roads

Henry County has one designated federal highway, which is listed below.

U.S. Highway 431: U.S. Highway 431 is a north-south route that passes through Abbeville, Newville, and Headland. U.S. Highway 431 is designated as a Hurricane Evacuation Route as it carries traffic north of Henry County eventually to the Columbus, GA area where evacuees have interstate highway access.

Henry County also has five state highways.

Alabama Highway 10: Highway 10 is a mostly west-east route that travels from western Henry County through Abbeville into Georgia.

Alabama Highway 27: Highway 27 is a southwest-northeast route that enters west-central Henry County and ends at Highway 10 in Abbeville.

Alabama Highway 95: Highway 95 is a mostly north-south route that travels from Barbour County south through Abbeville and Haleburg into Houston County.

Alabama Highway 134: Highway 134 is a west-east route that travels from Dale County east through Headland then into Houston County at the southeastern corner of Henry County.

Alabama Highway 173: Highway 173 is a mostly north-south route that travels from Highway 27 south through Newville and ends at Highway 431 in Headland.

Henry County has an extensive county road system.

Many of these routes, especially U.S. Highway 431, are heavily traveled, due to Henry County being a point of travel for vacationers driving to the Florida Panhandle beaches from the north. Also, Henry County uses U.S. Highway 431 as a Hurricane Evacuation Route that not only residents of Henry County use, but also residents of northwest Florida.

Railroads

Henry County has one Class III (short line) railroads within its jurisdiction.

The Bay Line Railroad, LLC (BAYL): The Bay Line runs southwest-northeast from Dale County through Headland, Newville, and ends in Abbeville. Major commodities shipped include forest products, paper products, steel/pipe, and aggregates.

Airports

Henry County has two airports that serve municipal purposes. **Abbeville Municipal Airport** is located in the City of Abbeville. **Headland Municipal Airport** is located in the City of Headland.

2.3 Economy

Manufacturing and government comprise the two largest employment sectors in Henry County. Table 2.3.1 shows Henry County employers with over 100 employees and the type of product or service produced.

Table 2.3.1 Henry County Largest Employers

Employer	Product	# Employees
Henry County Board of Education	Education	348
Great Southern Wood Preserving	Lumber Treating	250
Henry County Healthcare Authority	Healthcare Services	208
Golden Oval Egg	Egg Processing	184

Source: Economic Development Partnership of Alabama

2.4 Utilities

Electricity: Alabama Power, PowerSouth Energy Cooperative (Pea River Cooperative)

Water: Baker Hill Water Authority, City of Abbeville, City of Headland, Henry County Water Authority, Town of Newville, Wills Crossroads Water Authority

Sewer: City of Abbeville, City of Headland, Town of Newville

Natural Gas: Southeast Alabama Gas District

Telecommunications: CenturyTel

Internet: AlaNet, AlaWeb, CenturyTel, Comcast, EarthLink

2.5 Social and Economic Characteristics

The 2008 Census estimated population of Henry County was 16,591 people. 8,972 people (54.08%) live in unincorporated areas of the County, while 7,619 people (45.92%) live within incorporated municipalities. In 2000, the County's median age was 39.3, which was older than the median age of the State of Alabama (35.8).

In 2000, the percentage of the population in Henry County that finished high school or better (66.7%) was lower than both the State of Alabama (75.3%) and national (80.4%) averages. The County also has below average median and per capita incomes compared to state and national averages. A higher percentage of families live below the poverty line when compared to the state and national averages. Table 2.5.1 is a basic demographic profile of the county.

Table 2.5.1 Henry County Demographic Profile

Population (2008)	16,591
Male (2008)	7,909
Female (2008)	8,682
Total Housing Units (2007)	8,322
Percent high school graduate or better (2008)	66.7
Percent bachelor's degree or higher (2008)	13.7
Median Household Income (2007)	\$35,076
Per Capita Income (2007)	\$25,840
Families below the poverty level (2007)	17.9%

Source: Alabama State Data Center, U.S. Census Bureau, Economic Development Partnership of Alabama

There are 4 municipalities in Henry County. These municipalities are Abbeville, Haleburg, Headland, and Newville. Abbeville is the county seat and Headland has the largest population. Table 2.5.2 gives basic social characteristics of these populations. In 2000, Headland was the only municipality within Henry County that had a median income at or above the state level (\$34,135). Estimates by race were not available for this update. All of this information should be available for the next five-year update.

Table 2.5.2 Municipal Demographic Data

Place	Abbeville	Haleburg	Headland	Newville
<i>Population (2008)</i>	2,937	109	4,019	543
<i>Minority (%) (2000)</i>	43.4	22.2	32.5	47.2
<i>65+ (%) (2008)</i>	23.3	22.9	14.3	17.1

<i>Under 21 (%) (2008)</i>	26.2	26.6	27.0	29.6
<i>Median HH Income (\$) (2008)</i>	24,337	26,818	44,663	33,171

Source: U.S. Census Bureau, Economic Development Partnership of Alabama

Headland covers the largest area of all the municipalities in Henry County (Table 2.5.3). Abbeville, the next largest city, has nearly the same amount of area. Headland has both the highest population and housing densities. This table will be updatable during the next Plan update.

Table 2.5.3 Housing and Population Densities by Municipality (2000)

Municipality	Land Area*	Water Area*	Total Area*	Housing Units	Housing Density**	Population	Population Density**
Abbeville	15.56	0.05	15.61	1,353	86.9	2,987	192.0
Haleburg	3.84	0.00	3.84	60	15.6	108	28.1
Headland	16.03	0.01	16.04	1,516	94.6	3,523	219.7
Newville	4.02	0.00	4.02	246	61.2	553	137.6

*square miles

**density per square mile of land

Source: U.S. Census Bureau

Section 3 – Planning Process

This section of the plan addresses requirements of Interim Final Rule (IFR) Section 201.6(d)(3).

Section Contents

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

Section	Section Updates
3.x	<ul style="list-style-type: none">• Changes in numbering and organization
3.1	<ul style="list-style-type: none">• Incorporated former “Section III-A Prerequisites”
3.2	<ul style="list-style-type: none">• Incorporated former “Section III-D Participating Jurisdictions”• Reflects Henry County Board of Education’s formal involvement
3.3	<ul style="list-style-type: none">• Incorporated former “Section III-B Hazard Mitigation Planning Involvement”• Narrative reflects the current update process
3.4	<ul style="list-style-type: none">• Incorporated former “Section III-C Public Involvement”• Narrative reflects the current update process• Narrative adds more information concerning other stakeholder involvement
3.5	<ul style="list-style-type: none">• Incorporated former “Section III-E”• Added new plans that were consulted in the update

3.1 Multi-Jurisdictional Plan Adoption

Each jurisdiction will approve the plan when it is deemed “approvable pending adoption.”

3.2 Multi-Jurisdictional Planning Participation

All jurisdictions in Henry County continued participation according to the standards set forth by the Planning Committee. These jurisdictions include:

- Henry County
- City of Abbeville
- Town of Haleburg
- City of Headland
- Town of Newville
- Henry County Board of Education

The Henry County Board of Education was consulted during the last planning process, but was included as a member of the Planning Committee during the Plan update.

3.3 Hazard Mitigation Planning Process

The Hazard Mitigation Plan for Henry County was updated through interaction between Henry County, its municipalities, and the Southeast Alabama Regional Planning and Development Commission (SEARP&DC) between the fall of 2007 and the summer of 2009. The guidance of the Henry County Hazard Mitigation Planning Committee was instrumental in the update of the plan.

The tasks of the Hazard Mitigation Planning Committee continued as:

- Attend meetings whenever possible
- Represent interests of their jurisdictions and residents
- Collect information on each jurisdiction’s essential resources
- Facilitate development of each jurisdiction’s mitigation strategy with aid from others in the jurisdiction

The Hazard Mitigation Planning Committee was composed of representatives of Henry County, Abbeville, Haleburg, Headland, Newville, and the Henry County Board of Education. The Southeast Alabama Regional Planning and Development Commission facilitated the process. The U.S. Army Corps of Engineers was consulted to assess any changes to dam mitigation along the Chattahoochee River. Assistance was also received from the Geological Survey of Alabama and the Alabama Forestry Commission – Henry County Office. Copies of the Plan draft were sent to neighboring counties for review.

The Hazard Mitigation Planning Committee scheduled a meeting in combination with the Henry County Pandemic Flu meeting on November 29, 2007 to discuss the scope of the update and the best way to collect the information required. It was decided that due to limited changes to Henry County’s development patterns and no major changes to natural disaster priorities that the existing Plan’s goals and objectives were still valid and for the SEARP&DC to meet with each jurisdiction to update hazard information, critical facilities, and mitigation actions. Materials

were sent to each committee member to review prior risks, vulnerabilities, and mitigation actions. Jurisdictional meetings occurred throughout 2008 and early 2009 to address the updates needed.

3.4 Public and Other Stakeholder Involvement

During the current planning period of July 2005 through spring 2009, the Henry County EMA Director met with each jurisdiction in a public to update mitigation action items due to antecedent disaster occurrences.

One public meeting has been held to receive public comment for the drafting of the Plan. This meeting was held on August 3, 2009 at 5:00 PM in the Henry County Emergency Operations Center. The meeting was advertised in the *Abbeville Herald* and the *Headland Observer*, and posted in several public places. Copies of the Plan were also sent to the Abbeville and Headland chambers of commerce and local utility providers. The purpose of this public meeting was to explain the contents included in the draft update of the Hazard Mitigation Plan and to receive community and public comments. An explanation of the hazard mitigation process, the organization of the draft plan, and current changes to the plan were discussed.

Once the plan is deemed “approvable pending adoption”, Henry County and each municipality will formally adopt the plan during a public meeting that complies with the Alabama Open Meetings Act.

3.5 Integration with Existing Plans

The existing plans that were consulted during the update of the Henry County Hazard Mitigation Plan include:

- **Alabama State Hazard Mitigation Plan (September 2007 Update)**
The State Hazard Mitigation Plan was consulted for guidance with the Risk Assessment section of the Plan update.
- **Alabama Drought Management Plan**
The Alabama Drought Management Plan was consulted to guide with resources for drought assessment and regional impacts.
- **Alabama Forestry Commission Southeast Region, Houston Work Unit Fire Readiness Plan**
The Houston Work Unit, which includes Henry County, was consulted to research resources dedicated to wildfire response.
- **Henry County Emergency Operations Plan (2009 Update)**
The updated Henry County Emergency Operations Plan was consulted again to ensure consistency in the needs of the communities in order to adequately respond to disaster situations.
- **Emergency Action Plan: Walter F. George Lock and Dam**

The Emergency Action Plan for the Walter F. George Lock and Dam along the Chattahoochee River was consulted in finding the vulnerability of Henry County in the event of a dam failure. There were no changes or updates to this plan since the prior development of the Hazard Mitigation Plan.

- **Army Corps of Engineers – Civil Works Expenditure Plan (ARRA 2009)**
The Civil Works Expenditure Plan provides an overview of Army Corps of Engineers projects, including the Walter F. George Lock and Dam located adjacent to Henry County.
- **Comprehensive Economic Development Strategy (CEDS) Annual Report October 2008**
The Regional CEDS was consulted to ensure the plan is consistent with the region's and Henry County's economic development strategy.

The county and the municipalities did not have comprehensive planning documents during the drafting of the Plan update. The City of Headland is currently developing a Comprehensive Plan in 2009 and will be consulted in future updates.

Section 4 - Risk Assessment

This section of the plan addresses requirements of Interim Final Rule (IFR) Section 201.6(c)(2).

Section Contents

- 4.1 Hazard Identification
- 4.2 Susceptibility to Hazards by Jurisdiction
- 4.3 Extent of Hazards by Jurisdiction
- 4.4 Previous Occurrences
- 4.5 Past Occurrence Documentation
- 4.6 Probability of Future Occurrence by Jurisdiction
- 4.7 Vulnerability Overview
- 4.8 Population Vulnerable to Hazards by Jurisdiction
- 4.9 Socially Vulnerable Populations
- 4.10 County Building Stock
- 4.11 Critical Facilities/Infrastructure Identification
- 4.12 Critical Facilities/Infrastructure Identification by Jurisdiction
- 4.13 Repetitive Loss Properties
- 4.14 Analyzing Development Trends

Section	Section Updates
4.x	<ul style="list-style-type: none"> ● Changes in numbering and organization ● Incorporated former “Section V – Assessing Vulnerability” within this Section
4.1	<ul style="list-style-type: none"> ● Changed some hazard types to better reflect State HMP <ul style="list-style-type: none"> ○ Included Severe Thunderstorm (except Lightning) as component of High Wind category ○ Included Tornado as component of High Wind category ○ Divided impacts of Hurricane into Flood and High Wind categories ○ Added Lightning component ○ Deleted Expansive Soils component ● Added table of Federally Declared Disasters ● Heavily edited each hazard profile ● Added table of Federal Disaster Declarations within the county
4.2	<ul style="list-style-type: none"> ● Incorporated former “Section IV-B” ● Changed Table contents from universal susceptibility to qualitative descriptions
4.3	<ul style="list-style-type: none"> ● Incorporated former “Section IV-C” ● Created table for organizational purposes
4.4	<ul style="list-style-type: none"> ● Incorporated previous occurrence portion of former “Section IV-D” ● Updated and edited numbers of occurrences to reflect more recent history from the past decade (1999 or 2000 to present)
4.5	<ul style="list-style-type: none"> ● Incorporated former “Section IV-E” ● Updated occurrences and corrected inaccurate data
4.6	<ul style="list-style-type: none"> ● Incorporated frequency of occurrence portion of former “Section IV-C” ● Created jurisdictional tables and, where possible, added possible future damage

	estimates
4.7	<ul style="list-style-type: none"> • Added short narratives to overview vulnerability for each hazard
4.8	<ul style="list-style-type: none"> • Incorporated former “Section V-A Overview of Affected Populations by Hazard • Changed title • Utilized 2008 population estimates
4.9	<ul style="list-style-type: none"> • Incorporated former “Section V-B” • Moved each factor table in front of factor map
4.10	<ul style="list-style-type: none"> • Incorporated former “Section V-C” • Added a table of residential structures counted in 2008
4.11	<ul style="list-style-type: none"> • Incorporated former “Section V-D” • Edited information for schools, sirens, and community shelters to reflect changes
4.12	<ul style="list-style-type: none"> • Incorporated former “Section V-E” • Changed and updated information based from local government input
4.13	<ul style="list-style-type: none"> • Added section for Repetitive Loss Properties
4.14	<ul style="list-style-type: none"> • Incorporated former “Section V-F” • No further changes, due to lack of updatable information

4.1 Hazard Identification

Henry County and its municipalities identified several hazards that are addressed in the County’s Hazard Mitigation Plan (Table 4.1.1). These hazards were identified through a process that included the County Hazard Mitigation Planning Committee’s input, empirical data, historical occurrences, and researching susceptibility of locations within Henry County to separate hazards.

Due to its spatial setting, Henry County is vulnerable to several hazards that potentially disrupt life and property. Hazards may affect Henry County at any time of year. Henry County is vulnerable, at varying levels, to 11 hazards listed by the Alabama State Hazard Mitigation Plan. The four hazard types that have no applicability to Henry County are: avalanche, coastal erosion, tsunami, and volcano. These hazards will not be mentioned any further. During the plan update process, it was determined beneficial to group natural hazards in accordance with the Alabama State Hazard Mitigation Plan. This includes dividing Hurricane/Coastal Storm into its two primary hazards: Flooding and High Winds. The FEMA-identified hazards that can have potential effects on Henry County are:

- **Dam Failure**
- **Drought**
- **Earthquake**
- **Extreme Temperatures**
- **Flooding (Riverine and Flash Floods)**
- **High Winds (Hurricanes, Tornadoes, Windstorms)**
- **Landslide**
- **Land Subsidence**
- **Lightning**
- **Wildfire**
- **Winter Storm**

Table 4.1.1 Henry County Hazards

Hazard	How Identified	Why identified
Dam Failure	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Vulnerable population below dams • Related to flooding concern
Drought	<ul style="list-style-type: none"> • Spatial location 	<ul style="list-style-type: none"> • Possible occurrence
Earthquake	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Theoretical effect on County
Extreme Temperatures	<ul style="list-style-type: none"> • Spatial location 	<ul style="list-style-type: none"> • Possible occurrence
Flooding	<ul style="list-style-type: none"> • Review of past disasters • Review of flood data • Input of Planning Committee 	<ul style="list-style-type: none"> • Extensive hydrography • Several historical occurrences • Concern of Planning Committee

High Winds	<ul style="list-style-type: none"> • Review of past disasters • Input of Planning Committee 	<ul style="list-style-type: none"> • Several historical occurrences • Large damage producer • Concern of Planning Committee
Landslide	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Possible occurrence
Land Subsidence	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Possible occurrence
Lightning	<ul style="list-style-type: none"> • Review of past occurrences • Input from Planning Committee 	<ul style="list-style-type: none"> • Several historical occurrences • Can produce damage
Wildfire	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Vulnerable population in forested areas
Winter Storm	<ul style="list-style-type: none"> • Review of past occurrences • Input of Planning Committee 	<ul style="list-style-type: none"> • Possible occurrence

Henry County has been included in several Federal Disaster Declarations, as shown in Table 4.1.2.

Table 4.1.2 Henry County Federally Declared Disasters

Date	Type of Incident
October 2, 1975	Severe Storms/Tornado
March 21, 1990	Severe Storms/Tornado
July 8, 1994	Severe Storms/Flooding
October 4, 1995	Hurricane Opal
March 9, 1998	Severe Storms/Flooding
December 18, 2000	Severe Storms/Tornado
September 15, 2004	Hurricane Ivan
July 10, 2005	Hurricane Dennis
March 3, 2007	Severe Storms/Tornado
April 28, 2009	Severe Storms/Flooding/Tornadoes/Straight-line Winds

Dam Failure

Dams provide communities several benefits, including agricultural, recreation, flood control, and civic purposes. However, a malfunctioning dam may create extensive problems for an area that is downstream of the impounded water. The volume and energy of the impounded water can create casualties and property damage if released due to failure or faulty operation.

Henry County has one dam that the U.S. Army Corps of Engineers' National Inventory of Dams considers "high risk" of a potential downstream hazard, Walter F. George Lock and Dam. The inundation area if a dam failure would occur is located in narrow areas of unincorporated Henry County along the Chattahoochee River. Dam failure would not affect any municipality.

There are an estimated three permanent residences within the inundation zone. Therefore, the damages that would occur would mainly affect farm structures and isolated agricultural operations within unincorporated Henry County. There are additional high risk dams upstream in the Chattahoochee River system that potentially would provide minor effects to the same areas of unincorporated Henry County if failure occurred.

The U.S. Army Corps of Engineers operates Walter F. George Lock and Dam. It was completed in 1963. The dam has never failed since being built. There have been improvements to mitigate seepage problems in 1981 and 1985. There is an Emergency Action Plan for Walter F. George Lock and Dam. Since there have been no occurrences of dam failure recorded in Henry County, the qualitative probability of dam failure in Henry County is regarded as Low, with no potential damage occurring in any municipality.

Drought

Drought occurs when there is little precipitation over an extended period of time, affecting hydrological and agricultural concerns. Meteorological drought is the departure of precipitation from normal that causes two other drought types which negatively affect areas. Hydrological drought occurs when a low amount of precipitation affects the water table, which can affect drinking water supply. Agricultural drought occurs when there is not enough soil moisture to support crop growth or good pasture conditions.

The entire area of Henry County is susceptible to drought due to its location in southeastern Alabama, which is prone to unpredictable precipitation including extended dry periods, and Henry County has widespread areas of agricultural land use. Since Henry County's public water supply is drawn from groundwater sources, extended droughts may limit water supply if the drought is exceptional in nature.

During 2006 and 2007, Henry County suffered through the drought that affected much of the southeastern United States. In March 2006, Henry County had extreme short-term drought conditions according to the Palmer Z Index, which turned into at least moderate long-term drought conditions through October 2006, with severe drought conditions in July 2006 and September 2006. In March 2007, Henry County again had extreme short-term drought conditions that turned into moderate long-term drought conditions. The conditions moderated in April 2007, but returned in May 2007 through October 2007, including severe drought conditions in August and September 2007. The U.S. Drought Monitor also showed Henry County with drought conditions in these periods, as areas of the County were displayed as D3 (Extreme) Drought in July 2006 and August 2006, as well as June 2007 and July 2007. In August 2007, Henry County entered into periods of D4 (Exceptional) Drought, the highest drought severity listed, through December 2007. Henry County remained in D3 status until late January 2008. These events caused poor crop seasons, as well as deteriorated the quality of pasture land until 2008.

The conditions that cause drought are unpredictable and the effects of drought are not easily quantified. There have been several occurrences of drought of varying consequences. In 2006 and 2007, a long duration drought with moderate impacts occurred in Henry County. The probability that a similar drought will occur in the future is regarded as Medium.

Earthquake

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. Earthquakes 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 Henry County. Henry County is not especially at risk from earthquake, though minor effects from the four aforementioned seismic zones are not out of the question.

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 most recent earthquake that produced any measurable effects on Henry County occurred on April 29, 2003, centered near Fort Payne, Alabama. The Geological Survey of Alabama displayed that Henry County recorded a IV on the Mercalli Intensity Scale during the earthquake, which is light shaking and no damage. Because of Henry County's distance from any active seismic zone and since there has been no recorded damage from any earthquake, it is believed that Henry County would only receive very minor effects from earthquakes.

According to the United States Geological Survey (USGS), the maximum peak acceleration for Henry County is 2% (Figure 4.1.1). Peak acceleration is a measure of how fast the rate of the earth's movement changes compared to the gravitational acceleration rate during an earthquake. A 2% rate is a very low seismic risk. Since Henry County has a low seismic risk and no documented historical damage, no further profiling will be completed for this hazard.

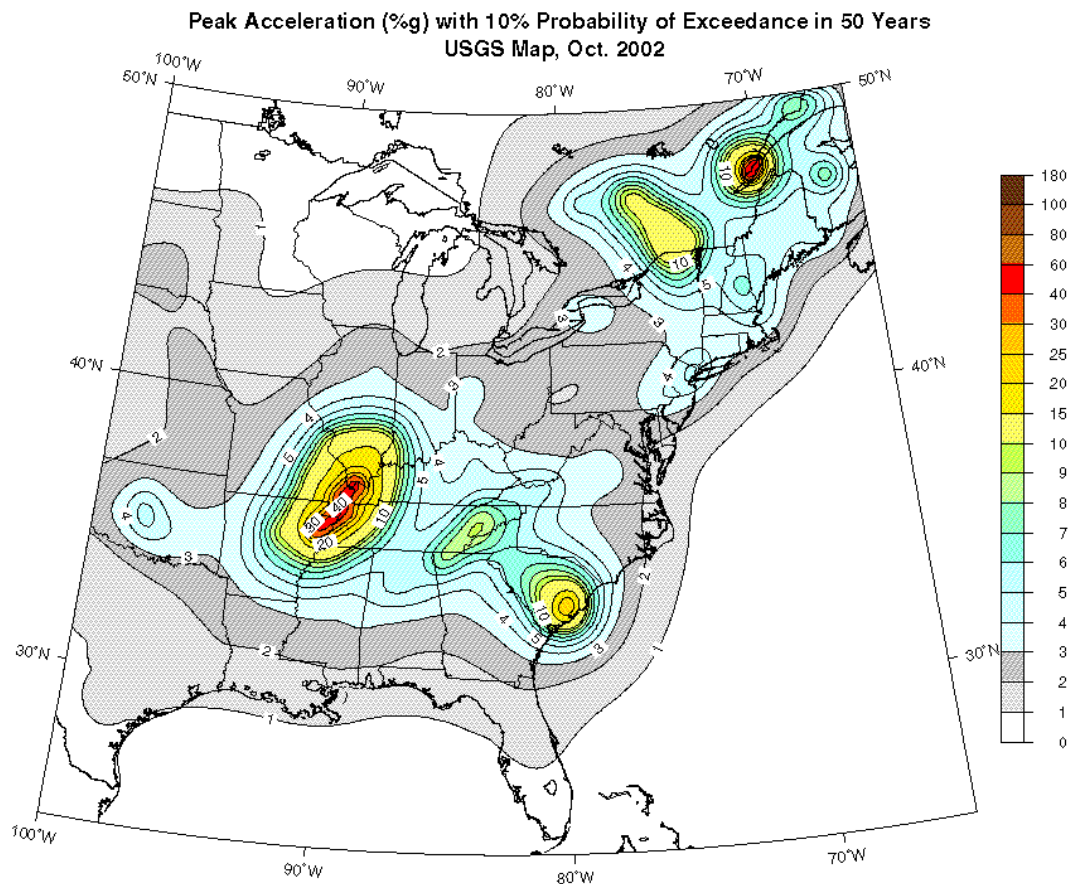


Figure 4.1.1 <http://eqhazmaps.usgs.gov/2002October/CEUS/CEUSpga500v3.gif>

Extreme Temperatures

Extreme temperatures are abnormal maximum and minimum temperatures that provide stressful conditions to a particular area. Extreme temperatures may be extreme heat in the summer or extreme cold in the winter. Henry County has a mild, humid climate that normally produces hot maximum temperatures in the summer and mild temperatures in the winter. Extreme temperatures may cause medical risks including heat strokes in hot weather and hypothermia in cold weather.

The entire area of Henry County experiences periodical extreme heat, which is persistent, above average maximum temperatures. Henry County normally has mild winters, with few extreme events of minimum temperatures.

Henry County normally receives maximum temperatures at or above 100 degrees Fahrenheit during the summer months, but occasionally receives several days consecutively, which can stress residents, livestock, and crops. On July 7, 1998, Headland recorded a maximum temperature of 105, which was the highest in Alabama that year. Extreme heat conditions in the summer months will normally coincide with drought conditions. This can affect Henry County's agricultural uses, and also contribute to wildfire incidents. Henry County will occasionally

receive periods of cooler temperatures in the teens, but these cool snaps have not displayed major negative impacts on the County.

Henry County records excessive maximum temperatures almost annually. However, the effects of excessive heat have been relatively minor except in the cases of long durations that often coincide with drought conditions. The probability that Henry County will experience extreme heat that causes more than minor effects is Medium. Since the periods of cold temperatures in Henry County are short-lived in duration and have not caused more than isolated damages, any further profiling of extreme temperatures will focus on extreme heat.

Flooding

Flooding is considered the most frequent and costly natural hazard in the United States. Flooding normally occurs due to excessive precipitation and is dependent on many factors, including drainage basin characteristics, antecedent soil moisture conditions, weather patterns, land cover, and many others.

The type of flooding that mainly affects Henry County is flash flooding. Flash flooding is a short-term event that occurs when heavy precipitation falls in a localized area. Flash flooding is more common in developed areas with large areas of impervious surfaces that cause the precipitation to runoff instead of percolate into the soil. The runoff can become fast-moving rivers that can cause property damage and injuries or deaths. The other type of flooding that may occur in Henry County is riverine flooding. Riverine flooding is a longer-term event that is caused by excessive precipitation that causes rivers and streams to flood out of their banks, causing damage to developments within those areas.

Flooding may occur in isolated areas of each jurisdiction, as described below. According to the Henry County Engineer who is the Floodplain Administrator, there are only three residential structures located within a flood zone and there are no Repetitive Loss Structures in the County. Riverine flooding is not a major problem within the County, as most flood damage is created by flash flooding.

Abbeville: The City of Abbeville is mapped for Special Flood Hazard Areas. These maps were updated in September 2007. The city is participating in the National Flood Insurance Program. Abbeville experiences general flash flooding of a minor nature and the areas that are susceptible to flooding are along minor streams and have not been recorded to cause street or property damage.

Haleburg: The Town of Haleburg is mapped for Special Flood Hazard Areas. These maps were updated in September 2007. The town is not participating in the National Flood Insurance Program. The town experiences minor flash flooding, but has recorded no damages.

Headland: The City of Headland is mapped for Special Flood Hazard Areas. These maps were updated in September 2007. The city is participating in the National Flood Insurance Program. Headland experiences general flash flooding of a minor nature and the areas that are susceptible to flooding are along minor streams and have not been recorded to cause street or property damage.

Newville: The Town of Newville is mapped for Special Flood Hazard Areas. These maps were updated in September 2007. The town is participating in the National Flood Insurance Program.

Newville experiences general flash flooding of a minor nature and the areas that are susceptible to flooding are along minor streams and have not been recorded to cause street or property damage.

Henry County: Henry County is mapped for Special Flood Hazard Areas. These maps were updated in September 2007. The county is participating in the National Flood Insurance Program. Henry County primarily receives isolated flash flooding and does not experience major riverine flooding. The county has experienced drainage problems along County Road 55 in southern Henry County between County Road 12 and Alabama Highway 134 and along County Road 4 in southern Henry County. During the flooding of March and April 2009, the only structure that recorded flood damage was a hunting lodge on County Road 2 in southern Henry County. The East Fork Choctawhatchee River in western Henry County has had instances of flooding in the past, but the areas affected are primarily undeveloped.

There are two primary events that cause flooding in Henry County, tropical systems and non-tropical related systems. Both events provide similar results in flooding. There has been no extensive engineering or hydraulic analysis that has been conducted in Henry County. Henry County has not had an extensive problem with major flooding in recent history. Most residents live outside of flood hazard areas and topography within the county has assisted in keeping flood waters from expanding over developed areas. Henry County has received occasional minor damage from flash flooding occurrences, as streets occasionally have drainage problems or experience washing conditions. Unless development occurs in flood prone areas, Henry County can expect to experience minor street and property damage occurring from flood events. Due to this assessment, Henry County is regarded to have a Medium probability of damaging floods.

High Winds

High wind events in Henry County are caused by hurricanes, tornadoes, and severe thunderstorms. Hurricanes and tropical storms that affect Henry County are non-frontal low pressure systems that form in the Atlantic Ocean or Gulf of Mexico. Whenever these storms interact with the land surface, destructive forces of high winds, heavy sustained precipitation, and tornadoes ensue. The Atlantic Basin Hurricane Season is from June 1 to November 30 of each year.

A tornado is a rapidly rotating funnel of air that extends to the ground from clouds. Tornadoes are one of the least understood weather events, which make them very hard to predict. Tornadoes do not normally cover a large spatial area, but they are very damaging and can be deadly in the areas they do impact.

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. These storms may produce damage equivalent to tornadoes over a large area.

The entire area of Henry County experiences high wind events caused by hurricanes, tornadoes, or severe thunderstorms. The high wind effects of hurricanes will normally be widespread throughout the county, the high wind effects of severe thunderstorms will have varying spatial

effects from widespread to localized, and high wind effects of tornadoes will normally be localized.

Hurricane intensity is classified using the Saffir-Simpson 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 4.1.3.

Table 4.1.3

SAFFIR-SIMPSON SCALE		
Category	Maximum Sustained Wind Speed (MPH)	Damage Description
1	74-95	MINIMAL: No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs.
2	96-110	MODERATE: Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center.
3	111-130	EXTENSIVE: Some structural damage to small residences and utility buildings with a minor amount of curtain wall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane.
4	131-155	EXTREME: More extensive curtain wall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the center of the hurricane.
5	>155	CATASTROPHIC: Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane.

Major hurricanes that make landfall on the Gulf Coast normally provide Henry County with up to Category 1 impacts and in extreme cases could provide impacts into the Category 2 range. In the past five years, Henry County has received minor to moderate wind damage from Hurricane Ivan, Hurricane Dennis, and Tropical Storm Fay. Hurricane Katrina only provided minor impacts to Henry County, as wind damage was more apparent in the central and western areas of Alabama.

Tornado intensity is classified using the Enhanced Fujita (EF) Scale, which is an update to the original Fujita Scale implemented in February 2007 (Table 4.1.4). 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.

Table 4.1.4

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.

Henry County is susceptible to tornadoes. Since 2000, Henry County has been affected by seven (7) tornadoes, of which three (3) have caused casualties. None of these tornadoes have exceeded F/EF2, but the County has had F3 tornadoes in the distant past and, as documented, deaths and injuries have occurred with lower intensity tornadoes.

Severe thunderstorms with straight line winds that affect Henry County can create wind gusts up to the equivalence of an EF1 tornado. Straight line wind events have caused almost 30 instances of documented damages since 2000.

High wind events that cause property damage and potential casualties may affect Henry County any time of year and has averaged multiple occurrences a year in recent history. This recent history of damaging events causes Henry County to have a High probability of high wind occurrences.

Landslide

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.

There are no specified areas in Henry County with documented incidences of landslides.

Figure 4.1.2 shows a Geological Survey of Alabama map Alabama landslide susceptibility. Henry County has low incidence of landslides occurring.

There has been no mention by the Geological Survey of Alabama, Hazard Mitigation Planning Committee, or the public dealing with concerns about landslides, therefore there will be no further profile completed.

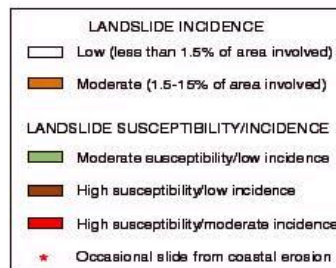
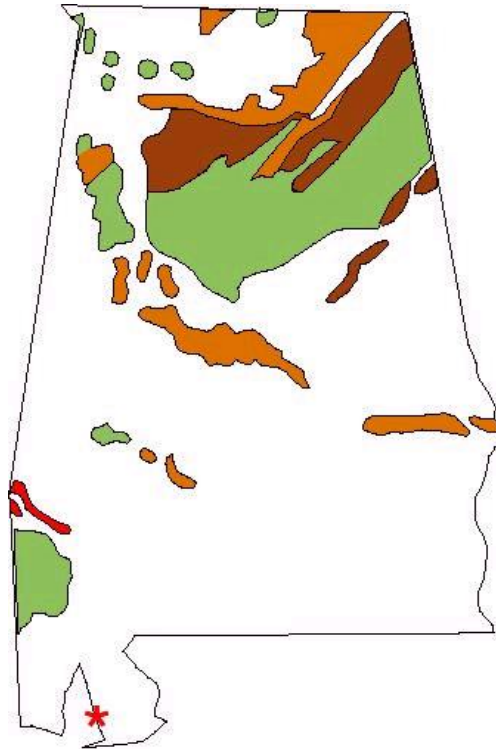


Figure 4.1.2 *Source: U.S. Geological Survey*
<http://www.gsa.state.al.us/gsa/landslides.html>

Land Subsidence

According to the Geological Survey of Alabama, the most common cause of land subsidence in Alabama is the development of sinkholes in areas that have underlying soluble carbonate rocks or underlying abandoned mines prone to collapse. 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. Figure 4.1.3 shows areas of active land subsidence and outcrops of carbonate rocks, which are susceptible to land subsidence.

The Geological Survey of Alabama displays a small area of sinkhole and subsidence in extreme eastern Henry County. Henry County is shown to be susceptible to land subsidence, due to its

underlying geology. In discussions with Henry County stakeholders, no effects from land subsidence were mentioned.

Any sinkholes formed in Henry County would be regarded as small and there have only been very few reports of damages caused by land subsidence. There were no additional reports of land subsidence damage after the excessive droughts of 2006 and 2007.

Henry County is home to many pre-Cretaceous sinkholes in the form of old bauxite mines. Although these mines have hardened, there is a potential risk of smaller sinkholes forming nearby the mines, especially after a sudden decrease in water level. Another geological characteristic that increases the risk of sinkhole activity is the presence of Tallahatta formations in the southern portion of the county. The greenish-gray, silty claystone becomes gravelly under undip exposures, causing the ground to become unstable. There have been very few reports of damages caused by land subsidence in Henry County. The probability for further land subsidence development would be regarded as Low. Land subsidence will not be further profiled at this time, but Henry County should monitor any future land subsidence for future updates.

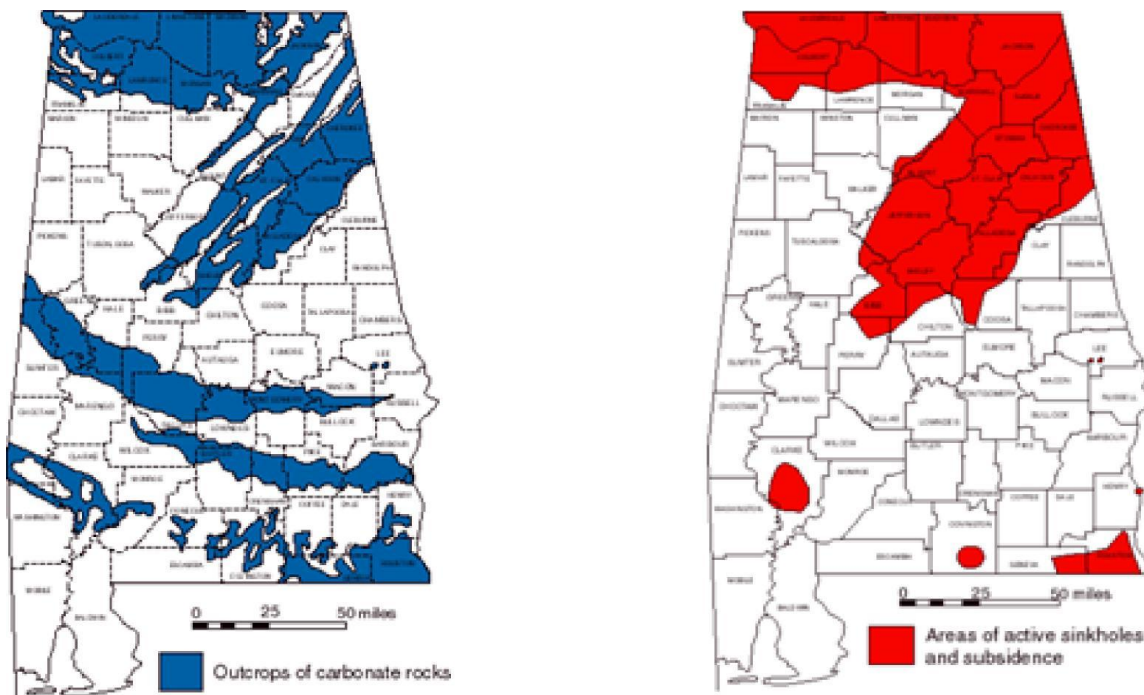


Figure 4.1.3

<http://www.gsa.state.al.us/gsa/sinkholes/sinks.html>

Lightning

Lightning strikes are a byproduct of thunderstorms. Thunderstorms do not have to be severe to cause lightning to strike in areas affected. Lightning strikes are capable of inflicting damage to property and are a threat to humans.

The entire area of Henry County may experience lightning events any time of the year, though instances are more numerous in spring and summer. Lightning effects are very localized in nature.

Lightning events occur often in Henry County, due to its location near the Gulf Coast. Though lightning occurrences are plentiful, major damage from lightning does not occur as much as damage from wind events that occur in thunderstorms. Henry County has one documented occurrence of property damage from lightning since 2000. Lightning is very dangerous and can create more extensive property damage or human casualties at any time.

Lightning occurs very frequently throughout the County, though historical records of lightning causing damage are not very extensive. Due to the prevalence of lightning events, Henry County has a Medium probability for major damage caused by lightning. Even though Henry County has experienced more damage from high wind events than lightning events in thunderstorms, lightning is still a serious concern.

Wildfire

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

Much of Henry County is susceptible to wildfire occurrences. A Fire Occurrence Areas map produced by the Alabama Forestry Commission (Figure 4.1.4) illustrates that Henry County has isolated areas in unincorporated Henry County with a High occurrence rating and no areas with an Extreme occurrence rating. The areas shown with High ratings are south of Abbeville between County Roads 99 and 53 and in the northeast portion of the County near Thomas Mill Creek. All of the municipalities, with the exception of Newville, have areas with Medium occurrence ratings within their jurisdictions.

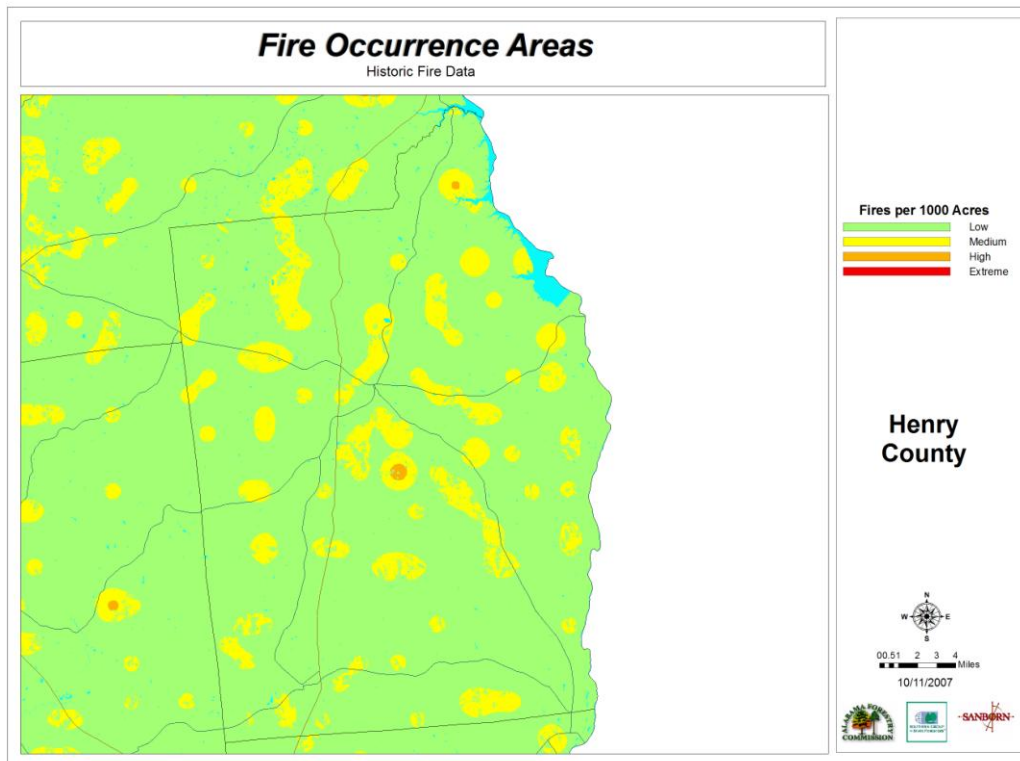


Figure 4.1.4
Source: Alabama Forestry Commission

The number of fires and acreage burned is less than most other counties in Alabama, as Henry County ranked 63st out of 67 counties in number of wildfires (168) and 66th out of 67 counties in total acres burned (1,099.2) between 1999 and 2008 according to figures collected by the Alabama Forestry Commission. The areas where wildfires occur have been very rural areas of the County. Though Henry County has not had the extensive occurrences of wildfires as most other counties in Alabama, wildfires potentially create damage to the timber industry, property damage to businesses and homes, and, in extreme cases, casualties.

According to the Communities at Risk of Wildfire Risk map (Figure 4.1.5) produced by the Alabama Forestry Commission, Henry County has isolated areas of Moderate risk in extreme northeastern portions near Lake Eufaula. All four municipalities are regarded as having Low risk. Therefore, Henry County is regarded to have a Medium probability for major damage caused by wildfires, with the four municipalities having Low probabilities due to the information supplied by the Alabama Forestry Commission and no recorded damages in recent history. As population and development increases in Henry County, especially in the Headland area, the wildland urban interface should be monitored for potential wildfire effects.

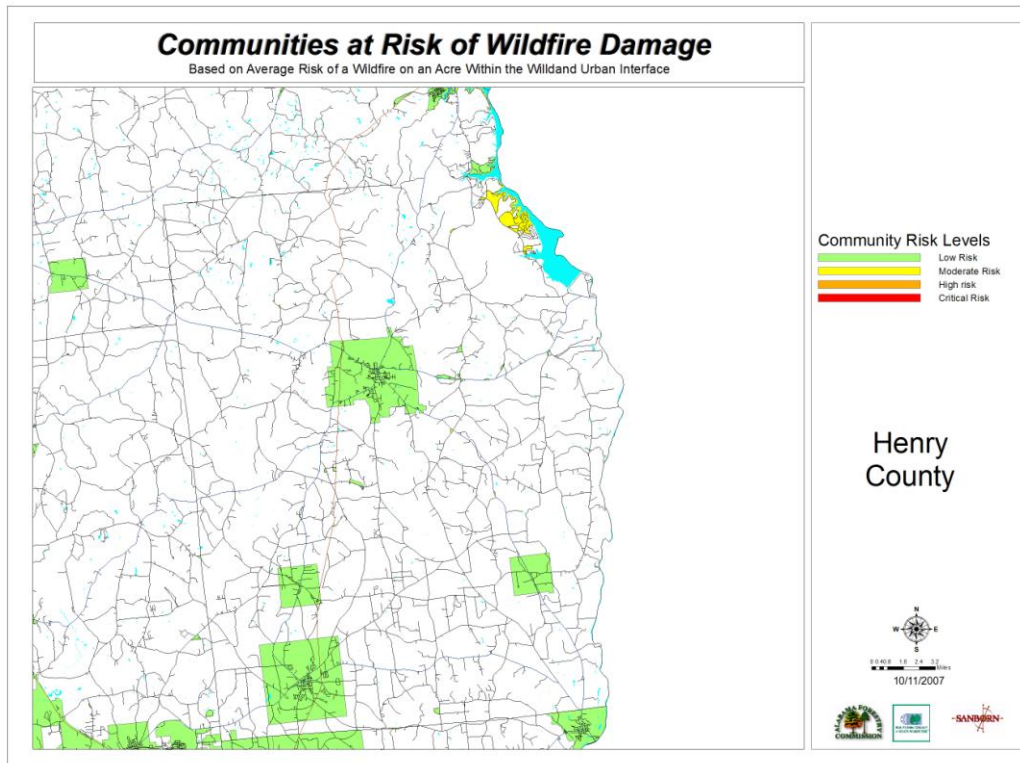


Figure 4.1.5
Source: Alabama Forestry Commission

Winter Storm

Winter storms normally cause frozen precipitation (snow, freezing rain, and ice), windy conditions, and extreme cold. The effect of winter storms on a community depends on how equipped the community is to handle the storm, as winter storms can cause power outages, transportation problems, and collapsed roofs on structures.

The entire area of Henry County would be susceptible to a winter storm if one were to develop this far south.

Henry County receives winter storms very infrequently. Henry County, like many counties in the southeastern United States, does not keep much equipment to react to winter weather events.

Winter storms occur very infrequently in Henry County and have a short duration of effects. Therefore, Henry County has a Low probability for major damage caused by a winter storm and there will be no further profiling on this hazard.

4.2 Susceptibility to Hazards by Jurisdiction

Table 4.2.1 summarizes each jurisdiction’s susceptibility to prioritized hazards as described in the profiles above. Most of these hazards will affect the entirety of Henry County. Dam failure is a hazard that would not potentially affect every jurisdiction and wildfires are projected to affect unincorporated Henry County greater than other jurisdictions. These qualitative descriptions are from historical occurrences and risk factors decided by the Hazard Mitigation Planning Committee. Because of the lack of comprehensive information on many of the hazards, susceptibility to future damage will be noted by categories of High, Medium, or 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
- **None:** No probable major damage

Table 4.2.1

Hazard	Abbeville	Haleburg	Headland	Newville	County
Dam Failure	None	None	None	None	Low
Drought	Medium	Medium	Medium	Medium	Medium
Extreme Temperatures	Medium	Medium	Medium	Medium	Medium
Flooding	Medium	Medium	Medium	Medium	Medium
High Winds	High	High	High	High	High
Lightning	Medium	Medium	Medium	Medium	Medium
Wildfire	Low	Low	Low	Low	Medium

4.3 Extent of Hazards by Jurisdiction

Table 4.3.1 summarizes each jurisdiction’s potential severity of hazard events as described in the profiles above. Most of these hazards will affect the entirety of Henry County similarly. These summary descriptions are from historical occurrences and other identified risk factors.

Table 4.3.1

Hazard	Abbeville	Haleburg	Headland	Newville	County
Dam Failure	No potential damage	No potential damage	No potential damage	No potential damage	Flooding in agricultural and timber areas that would affect few farm structures and isolated agricultural operations
Drought	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources, increased risk of wildfires
Extreme Temperatures	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk
Flooding	Street and property damage, casualties	Street and property damage, casualties	Street and property damage, casualties	Street and property damage, casualties	Street and property damage, casualties
High Winds	Category 2 / EF-3 damage to property and utilities, casualties	Category 2 / EF-3 damage to property and utilities, casualties	Category 2 / EF-3 damage to property and utilities, casualties	Category 2 / EF-3 damage to property and utilities, casualties	Category 2 / EF-3 damage to property and utilities, casualties
Lightning	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties
Wildfire	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties

4.4 Previous Occurrences

The previous occurrences of hazards within Henry County and its municipalities are taken from information provided by the National Weather Service, the National Climatic Data Center, the Henry County Emergency Operations Plan, and the Henry County Hazard Mitigation Planning Committee.

The information provided should not be assumed to be totally comprehensive. Historical recording of events in rural areas are inconsistent, due to fewer resources than a large metropolitan area. The events documented below are ones that there is a record of damage kept. There are many events that have not been recorded. However, the sources cited provide a good overview of the hazard occurrences that have taken place within Henry County.

To reflect recent activity and, assumedly, more comprehensive record-keeping, occurrences by jurisdiction since 2000 (Table 4.4.1) are listed below, with the exception of wildfires (1999-2008).

Table 4.4.1 Past Occurrences by Jurisdiction

Hazard	Abbeville	Haleburg	Headland	Newville	County
Dam Failure	0	0	0	0	0
Drought	2	2	2	2	2
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	3	3	4	3	3
High Winds	10	5	9	8	28
Lightning	0	0	0	0	1
Wildfire	N/A	N/A	N/A	N/A	168

4.5 Past Occurrence Documentation

Note: This section has been updated with more recent information from the original Plan.

The descriptions about prior hazards within Henry County and its municipalities are taken from information provided by the National Weather Service, the National Climatic Data Center, and representatives of the Henry County Hazard Mitigation Planning Committee, and Mr. Jim Smith. Some of the information presented will reflect the different sources from which the data was received.

This section is broken into sections for events that affected multiple jurisdictions within Henry County plus individual sections of events in Abbeville, Haleburg, Headland, Newville, and unincorporated Henry County.

Time periods available for each hazard vary, resulting from different data sources and methods of collection. This list of past occurrences is as complete as possible at this time. However, due to inconsistent reporting, especially in rural areas, events are not as comprehensive as liked. As new and improved data is available, this list will be amended to reflect those changes.

Federally Declared Disaster Events and other Multi-jurisdictional Events

The following federally declared and other multi-jurisdictional events have caused widespread impact on Henry County since 1994.

- *July 1994:* Tropical Storm Alberto made landfall near Destin, Florida on July 3, 1994 and affected Henry County. Sections of Henry County received some tree and building damage from winds.
- *October 1995:* Hurricane Opal made landfall near Pensacola Beach, Florida as a Category 3 hurricane on October 4, 1995. Henry County received sustained winds over 100 miles per hour. There was extensive damage of several million dollars over Henry County. This was a declared disaster for Henry County.
- *March 1998:* Henry County was affected by severe storms and flooding from a Gulf storm that affected southeastern Alabama. Damage to county roads was estimated around \$440,000. Henry County was declared a federal disaster area.
- *September 1998:* Tropical Storm Earl made landfall near Panama City, Florida, then made a northeastern path across the extreme southern Southeast United States. Henry County was affected by rain and wind.
- *December 2000:* Abbeville and other areas of Henry County were affected by an outbreak of tornadoes. The county was declared a federal disaster area.
- *August 2001:* Tropical Storm Barry made landfall near Santa Rosa Beach, Florida then moved northwest through South Alabama. Henry County received heavy rain and wind damage from Barry.
- *November 2002:* Abbeville was affected by a F2 tornado that tore a path through dense areas of Abbeville causing one fatality and 20 injuries. Henry County was included in a federal disaster area.
- *September 2004:* Hurricane Ivan made landfall near Gulf Shores, Alabama then moved north through Alabama. Henry County received minor damage from Ivan and was included in the federal disaster declaration.

- *July 2005:* Hurricane Dennis made landfall between Pensacola and Navarre Beach, Florida then moved north through Alabama. Henry County received minor tree and power line damage from Dennis and was included in the federal disaster declaration.
- *March through October 2006:* Henry County experienced a widespread drought up to D3 (Extreme) conditions that caused loss of agricultural production.
- *March 2007:* Areas in Henry County, including Bethlehem and Otho, were damaged by an F1 tornado that entered from Dale County, injuring two people. The county was declared a federal disaster area.
- *June 2007 through January 2008:* Henry County experienced D3 (Extreme) and D4 (Exceptional) drought conditions, which caused loss of agricultural production.
- *August 2008:* Tropical Storm Fay made landfall east of Apalachicola, Florida then moved northwest along the Florida Panhandle. Henry County received heavy rain (estimated 9-10” in northeastern portions of the County) and minor wind damage.

City of Abbeville Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Abbeville	11/04/1992	03:12 AM	F1	0	0	\$2,500,000
Abbeville (also in County)	12/16/2000	11:30 AM	F1	0	0	\$2,900,000
Throughout Abbeville	11/05/2002	05:35 PM	F2	1	20	\$3,000,000

Severe Storm Occurrence

Date	Type of Storm	Damage
05/25/1980	Hail	N/A
05/14/1984	Thunderstorm/Wind	N/A
04/15/1985	Hail and Thunderstorm/Wind	N/A
06/25/1988	Thunderstorm/Wind	N/A
07/19/1989	Thunderstorm/Wind	N/A
11/15/1989	Thunderstorm/Wind	N/A
02/22/1990	Thunderstorm/Wind	N/A
03/16/1990	Thunderstorm/Wind	N/A
04/01/1990	Thunderstorm/Wind	N/A
07/11/1990	Thunderstorm/Wind	N/A
12/03/1990	Thunderstorm/Wind	N/A
05/01/1991	Hail	N/A
08/19/1995	Thunderstorm/Wind	No Damage
04/22/1997	Thunderstorm/Wind	\$1,000
05/03/1998	Hail	N/A
06/05/1998 (also in County)	Thunderstorm/Wind	\$10,000
07/12/2000 (also in County)	Thunderstorm/Wind	\$50,000
04/30/2002	Hail	N/A
03/13/2003	Hail	N/A
07/15/2004	Hail	N/A
05/10/2006	Hail	N/A
06/22/2006	Thunderstorm/Wind	\$2,000
03/01/2007	Thunderstorm/Wind	\$25,000
02/17/2008	Thunderstorm/Wind	\$1,000

Town of Haleburg Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
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SE portion of Haleburg	01/11/1918	02:30 PM	F2	1	8	N/A
Haleburg (also in County)	04/08/1974	03:25 PM	F2	0	0	\$25,000
Haleburg (also in Headland/County)	12/24/2002	06:45 AM	F1	0	8	\$1,000,000

Severe Storm Occurrence

Date	Type of Storm	Damages
01/27/1974	Thunderstorm/Wind	N/A
05/16/1983	Thunderstorm/Wind	N/A
04/08/2004	Hail	N/A

City of Headland Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Headland (also in County)	03/15/1912	03:00 AM	F3	5	N/A	25 homes
Headland	12/06/1953	08:00 AM	F2	0	1	\$25,000
Headland	05/10/1957	07:45 PM	F1	0	0	\$2,500
Airport area (also in Haleburg/County)	12/24/2002	06:45 AM	F1	0	8	\$2,000,000

Severe Storm Occurrence

Date	Type of Storm	Damages
06/15/1989	Thunderstorm/Wind	N/A
11/08/1989	Thunderstorm/Wind	N/A
02/22/1990	Thunderstorm/Wind	N/A
05/01/1991	Thunderstorm/Wind	N/A
07/24/1991	Thunderstorm/Wind	N/A
03/30/1992	Hail	N/A
07/01/1992	Thunderstorm/Wind	N/A
03/08/1995	Lightning	\$40,000
07/09/1995	Lightning and Thunderstorm/Wind	\$67,000
01/11/1996	Thunderstorm/Wind	\$2,000
05/30/2002	Hail and Thunderstorm/Wind	\$1,000
05/21/2004	Funnel Cloud	N/A
06/28/2004	Thunderstorm/Wind	\$1,000
12/28/2005	Hail	N/A
11/15/2006	Thunderstorm/Wind	\$50,000
09/15/2008	Thunderstorm/Wind	N/A

Flood Occurrence

Date	Type of Storm	Damages
06/30/2003	Flash Flood	\$5,000

Town of Newville Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Newville	09/28/1998	07:00 PM	F0	0	0	\$75,000

Severe Storm Occurrence

Date	Type of Storm	Damages
03/25/1982	Thunderstorm/Wind	N/A
03/21/1989	Hail	N/A
04/03/2000	Thunderstorm/Wind	\$10,000
08/25/2000	Thunderstorm/Wind	\$1,000

06/14/2002	Thunderstorm/Wind	\$3,000
06/21/2008	Thunderstorm/Wind	\$1,000

Unincorporated Henry County Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
1 mile S of Otho	04/16/1879	N/A	F2	2	N/A	N/A
N of Abbeville	03/27/1882	09:30 PM	F2	1	1	N/A
Hardwicksburg Community	01/11/1918	02:00 PM	F2	0	2	N/A
3 miles SW of Headland	03/19/1930	09:00 PM	F2	0	1	N/A
Lawrenceville	02/14/1936	03:30 PM	F2	0	4	N/A
4 miles NW of Headland	12/06/1953	07:00 AM	F1	0	0	\$2,500
1 mile W of Headland	03/29/1954	02:30 PM	F2	0	0	\$25,000
W of Headland	01/05/1962	10:30 PM	F2	0	0	\$750,000
2 miles E of Clopton-Edwin	01/13/1972	02:15 AM	F3	0	2	\$250,000
W of Headland - S of Bethlehem	12/29/1973	06:40 PM	F3	0	2	\$800,000
Tumbleton (also in Haleburg)	04/08/1974	03:25 PM	F2	0	0	\$25,000
Lake Eufaula	05/03/1984	08:10 AM	F1	0	0	N/A
CR 65/CR 97	11/07/1995	12:05 PM	F0	0	0	N/A
N of Newville	01/05/1997	06:55 AM	F2	0	0	\$180,000
Near Abbeville (also in Abbeville)	12/16/2000	11:30 AM	F1	0	0	\$2,900,000
Tumbleton/Camp Springs (also Headland/Haleburg)	12/24/2002	06:45 AM	F1	0	8	\$2,000,000
Tumbleton (CR 45/CR 13)	01/13/2006	12:45 PM	F0	0	0	\$100,000
S of Newville	11/15/2006	02:38 PM	F1	0	0	\$150,000
W and NE Henry County (Bethlehem/Otho/Lake Eufaula)	03/01/2007	01:52 PM	EF1	0	2	\$11,000,000
5 miles W of Capps	10/08/2008	12:33 PM	EF0	0	0	\$75,000

Severe Storm Occurrence

Date	Type of Storm	Damages
06/05/1956	Thunderstorm/Wind	N/A
01/21/1959	Thunderstorm/Wind	N/A
03/31/1961	Thunderstorm/Wind	N/A
03/31/1962	Hail and Thunderstorm/Wind	N/A
07/22/1967	Thunderstorm/Wind	N/A
04/27/1968	Thunderstorm/Wind	N/A
03/11/1970	Thunderstorm/Wind	N/A
04/04/1974	Hail	N/A
05/16/1983	Thunderstorm/Wind	N/A
03/21/1985	Hail	N/A
04/05/1985	Hail	N/A
07/31/1986	Thunderstorm/Wind	N/A
06/27/1988	Thunderstorm/Wind	N/A
05/23/1989	Thunderstorm/Wind	N/A
06/15/1989	Thunderstorm/Wind	N/A
02/16/1990	Thunderstorm/Wind	N/A
05/21/1990	Thunderstorm/Wind	N/A
07/08/1990	Thunderstorm/Wind	N/A
08/22/1990	Thunderstorm/Wind	N/A
12/03/1990	Thunderstorm/Wind	N/A
03/30/1992	Hail	N/A
07/19/1995	Thunderstorm/Wind	\$4,000

04/29/1996	Hail	\$1,000
05/03/1998	Hail	N/A
06/05/1998	Thunderstorm/Wind	\$10,000
04/28/1999	Hail	N/A
01/10/2000	Thunderstorm/Wind	\$1,000
07/12/2000	Thunderstorm/Wind	\$50,000
08/19/2000	Thunderstorm/Wind	\$5,000
08/25/2000	Thunderstorm/Wind	\$2,000
01/19/2001	Thunderstorm/Wind	\$1,000
06/04/2002	Thunderstorm/Wind	\$1,000
08/16/2003	Thunderstorm/Wind	\$1,000
03/26/2005	Hail	N/A
05/20/2005	Hail	N/A
07/06/2005	Thunderstorm/Wind	\$150,000
08/15/2005	Thunderstorm/Wind	\$3,000
12/28/2005	Hail	N/A
04/08/2006	Hail	N/A
05/10/2006	Thunderstorm/Wind	\$2,000
08/08/2006	Thunderstorm/Wind	N/A
11/15/2006	Thunderstorm/Wind	\$2,000
03/01/2007	Thunderstorm/Wind	\$2,000
04/14/2007	Thunderstorm/Wind	\$1,000
05/12/2007	Thunderstorm/Wind	\$1,000
07/07/2007	Thunderstorm/Wind	\$2,000
02/17/2008	Thunderstorm/Wind/Hail	N/A
06/09/2008	Funnel Cloud	N/A
07/05/2008	Hail	N/A
08/07/2008	Lightning	\$50,000
12/11/2008	Wind	\$10,000

Flood Occurrence

Location	Date	Damages
Henry County	1990	\$250,000
Henry County (especially AL 27 in western Henry County)	July 1994	\$300,000
Henry County	02/10/1995	4 Injuries
Henry County	09/05/2003	N/A
Henry County	03/27/2005	N/A
Henry County	03/28/2009	N/A

4.6 Probability of Future Occurrence by Jurisdiction

Tables 4.6.1 through 4.6.5 estimate event frequency of occurrence for each jurisdiction, while Table 4.6.6 estimate event frequency of occurrence cumulatively for Henry County. These estimates were calculated from occurrences recorded since 2000, as more comprehensive data has been collected as compared to earlier instances. There is no guarantee the recent level of hazard events will continue into the future at the same rate, as high wind events have especially been more prevalent in Henry County over the past ten years. However, if recent event rates continue approximately the same, the figures below will provide at least a possible estimation of potential damages.

The time scales for each recorded hazard are listed below (when known and/or applicable):

Dam Failure: N/A (no recorded instances)

Drought: 2000 through 2009

Extreme Heat: N/A (not enough data/subjective data due to few recording sites in County)

High Winds: 2000 through 2009

Flooding: 2000 through 2009 (Henry County data from 1990 to extract damage figures)

Lightning: 2000 through 2009

Wildfire: 1999 through 2008 (no jurisdictional breakdown, so assumption is occurrence in unincorporated Henry County)

Formulas used in the table are defined as follows (Note: Values for injuries [\$12,500] and deaths [\$2,200,000] are taken from FEMA guidance for cost/benefit calculations):

Probability (Annual) = Occurrences / Time

Estimated Future Damage (Annual) = Damages Recorded / Time

Table 4.6.1 Probability of Future Occurrence Based on Recent Data – Unincorporated Henry County

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	0	N/A	N/A	N/A	N/A
Drought	2	10	N/A	20.00%	N/A
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	6	20	\$550,000	30.00%	\$27,500
High Winds	28	10	\$16,559,000	3 events per year	\$1,655,900
Lightning	1	10	\$50,000	10%	\$5,000
Wildfire	168	10	N/A	17 events per year	N/A

Table 4.6.2 Probability of Future Occurrence Based on Recent Data – City of Abbeville

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	0	N/A	N/A	N/A	N/A
Drought	2	10	N/A	20.00%	N/A
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	3	10	N/A	30.00%	N/A
High Winds	10	10	\$8,478,000	100%	\$847,800
Lightning	0	10	\$0	N/A	N/A
Wildfire	N/A	10	N/A	N/A	N/A

Table 4.6.3 Probability of Future Occurrence Based on Recent Data – Town of Haleburg

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	0	N/A	N/A	N/A	N/A
Drought	2	10	N/A	20.00%	N/A
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	3	10	N/A	30.00%	N/A
High Winds	2	10	\$1,100,000	20%	\$110,000
Lightning	0	10	\$0	N/A	N/A
Wildfire	N/A	10	N/A	N/A	N/A

Table 4.6.4 Probability of Future Occurrence Based on Recent Data – City of Headland

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	0	N/A	N/A	N/A	N/A
Drought	2	10	N/A	20.00%	N/A
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	4	10	\$5,000	40%	\$500
High Winds	6	10	\$2,152,000	60%	\$215,200
Lightning	0	10	\$0	N/A	N/A
Wildfire	N/A	10	N/A	N/A	N/A

Table 4.6.5 Probability of Future Occurrence Based on Recent Data – Town of Newville

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	0	N/A	N/A	N/A	N/A
Drought	2	10	N/A	20.00%	N/A
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	3	10	N/A	30.00%	N/A
High Winds	4	10	\$15,000	40%	\$1,500
Lightning	0	10	\$0	N/A	N/A
Wildfire	N/A	10	N/A	N/A	N/A

Table 4.6.6 Probability of Future Occurrence Based on Recent Data – Henry County (Cumulative)

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	0	N/A	N/A	N/A	N/A
Drought	2	10	N/A	20.00%	N/A
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	19	20	\$555,000	95%	\$27,750
High Winds	50	10	\$28,304,000	5 events per year	\$2,830,400
Lightning	1	10	\$50,000	10%	\$5,000
Wildfire	168	10	N/A	17 events per year	N/A

4.7 Vulnerability Overview

Dam Failure

There are an estimated three residential structures located within the inundation zone that may affect up to ten residents. The damages resulting from dam failure would damage the residences and affect several farm structures and isolated agricultural operations within unincorporated Henry County. There are additional high risk dams upstream in the Chattahoochee River system that potentially would provide minor effects to the same areas of unincorporated Henry County if failure occurred.

Drought

Drought can affect all 16,591 residents of Henry County through depletion of groundwater resources that contribute to drinking water for the entire county. Agricultural production would be impacted depending on the extent and severity of the drought. The entire county would also be more susceptible to wildfire events during a period of drought.

Extreme Heat

Extreme heat can affect all 16,591 residents of Henry County, but residents that are very young or very advanced in age are more susceptible. The effects of prolonged durations of extreme heat may often coincide with and exacerbate drought conditions. Extreme heat may stress electrical utility providers, due to increased air conditioning requirements. Need for health providers may also increase due to extreme heat.

Flooding

The main areas affected by riverine flooding in Henry County are along Lake Eufaula / Chattahoochee River and the East Fork of the Choctawhatchee River. Other areas inside the floodplains are streams and creeks throughout the county. The NFIP has identified flood zones in areas of each jurisdiction and these areas may cause property damage and potential casualties. According to the Henry County Engineer who is the Floodplain Administrator, there are only three residential structures located within a flood zone in the unincorporated County with an estimated ten residents and there are no Repetitive Loss Structures in the County. There are

several residences along Lake Eufaula in northeastern Henry County that are adjacent to the floodplain and could potentially receive minor flooding effects.

Flash flooding may potentially affect all 16,591 residents of the County and cause runoff that becomes fast-rising waters that can cause property and street damage as well as casualties. Unlike riverine flooding, which can be forecasted over a few days, flash flooding is normally a quick onset hazard with little warning.

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

High Winds

All of Henry County's 16,591 residents are susceptible to high wind events. These effects will include property damage to residences, businesses, and critical facilities. Utility service is normally interrupted causing loss of productivity and damage caused will create debris that may be dangerous.

Hurricanes will provide widespread effects during the summer and early autumn portions of the year. Effects from hurricanes may include tornadoes and other severe storms. Normally there are a few days of warnings before a hurricane impacts Henry County allowing for preparations.

Tornadoes are other high wind events whose effects of tornadoes are similar, but possibly more destructive than hurricanes, but impacts are 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.

Other wind events, including straight-line winds will also produce similar effects to tornadoes and hurricanes. These effects will be more localized than hurricane events but more widespread than tornadoes.

Lightning

All of Henry County's 16,591 residents are vulnerable to lightning events that occur any time of the year, though instances are more numerous in spring and summer. Lightning effects are localized in nature. Though lightning occurrences are plentiful, major damage from lightning does not occur as much as damage from wind events that occur in thunderstorms. Henry County has one documented occurrence of property damage from lightning since 2000. Lightning is very dangerous and may cause human casualties or fires that create property damage.

Wildfire

The effects caused by wildfires damage timber land in Henry County. If factors such as winds and drought are present, wildfires may spread for forested areas to areas with residential structures. Effects can exacerbate to cause property damage and even casualties. Though all of Henry County's 16,591 residents are vulnerable to wildfires, areas located in northeastern Henry County are at a higher vulnerability according to the Alabama Forestry Commission. The municipalities of Henry County are regarded as having Low risk for wildfire occurrences.

4.8 Population Vulnerable to Hazards by Jurisdiction

Note: This update is utilizing 2008 estimates to derive population affected by hazards.

The estimated population vulnerable to natural disasters is dependent on the specific hazard types. Table 4.8.1 highlights potential affected population for different natural hazards.

Table 4.8.1 Population Affected by Hazards

Hazard	Unincorporated County	Abbeville	Haleburg	Headland	Newville
Dam Failure	10	0	0	0	0
Drought	8,972	2,937	109	4,019	543
Extreme Heat	8,972	2,937	109	4,019	543
Flooding*	10	0	0	0	0
High Winds	8,972	2,937	109	4,019	543
Lightning	8,972	2,937	109	4,019	543
Wildfire	8,972	2,937	109	4,019	543

* Note: Population affected by flooding reflects population vulnerable to riverine flooding. All Henry County residents are vulnerable to flash flooding.

4.9 Socially Vulnerable Populations

Note: Census information on tract level has not changed since the last version of the Plan. The next update should be able to access 2010 Census demographics for recent demographics.

Table 4.9.1 shows potential vulnerability to hazards due to physical location. There are additional factors that make a population vulnerable. Social and economic characteristics can affect vulnerability. Certain groups of people can be more negatively affected by natural hazards and the aftereffects. These populations can be defined in terms of social, racial, and economic characteristics. These assessments of socially vulnerable populations use some of the groups that the State of Alabama deems as vulnerable. The following section identifies Henry County's socially vulnerable populations by Census Tract.

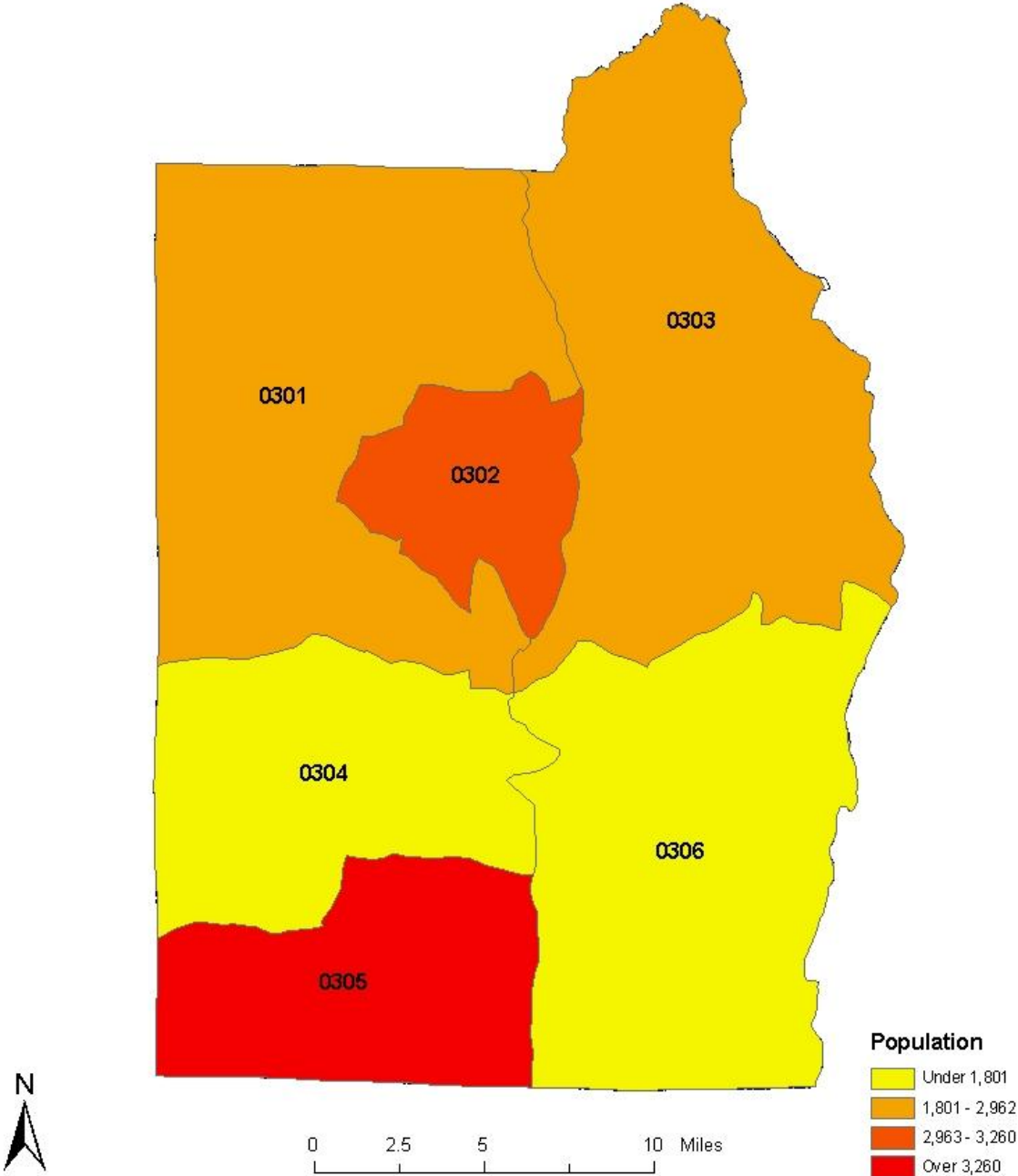
Demographics by Census Tract

Henry County is broken into six census tracts. Census tracts normally have populations between 1,500 and 8,000, and are optimally around 4,000 people. During each decennial census, the Census Bureau will possibly change the tract boundaries due to population increase or decrease. Figure 4.9.1 displays the population in each census tract. It gives an idea of where large numbers of population are located.

Figure 4.9.1 Henry County Population by Census Tract

Tract	0301	0302	0303	0304	0305	0306
Population	2,037	3,260	2,962	1,800	4,772	1,479

Henry County Population by Census Tract



Age of the population is another factor in vulnerability to natural hazards. People who are elderly and who are dependent children are more vulnerable than other segments of the population. These population groups will have special needs during a disaster event. Figure 4.9.2 displays tract percentages of population age 65 and over. Tract 0302, which nearly encompasses all of Abbeville, has the highest percentage of elderly population (22.5%). Tract 0301, which contains mainly unincorporated land, has the lowest (12.4%). Aside from Tract 0301, all tracts in Henry County exceed the state (13.0%) average and national (12.4%) average for elderly population.

Figure 4.9.2 Henry County Population Age 65 and Over by Census Tract

Tract	0301	0302	0303	0304	0305	0306
Population Over 65	253	733	499	278	666	239
Percent of Total Population	12.4	22.5	16.8	15.4	14.0	16.2

Percentage of Population Age 65 and Over by Census Tract

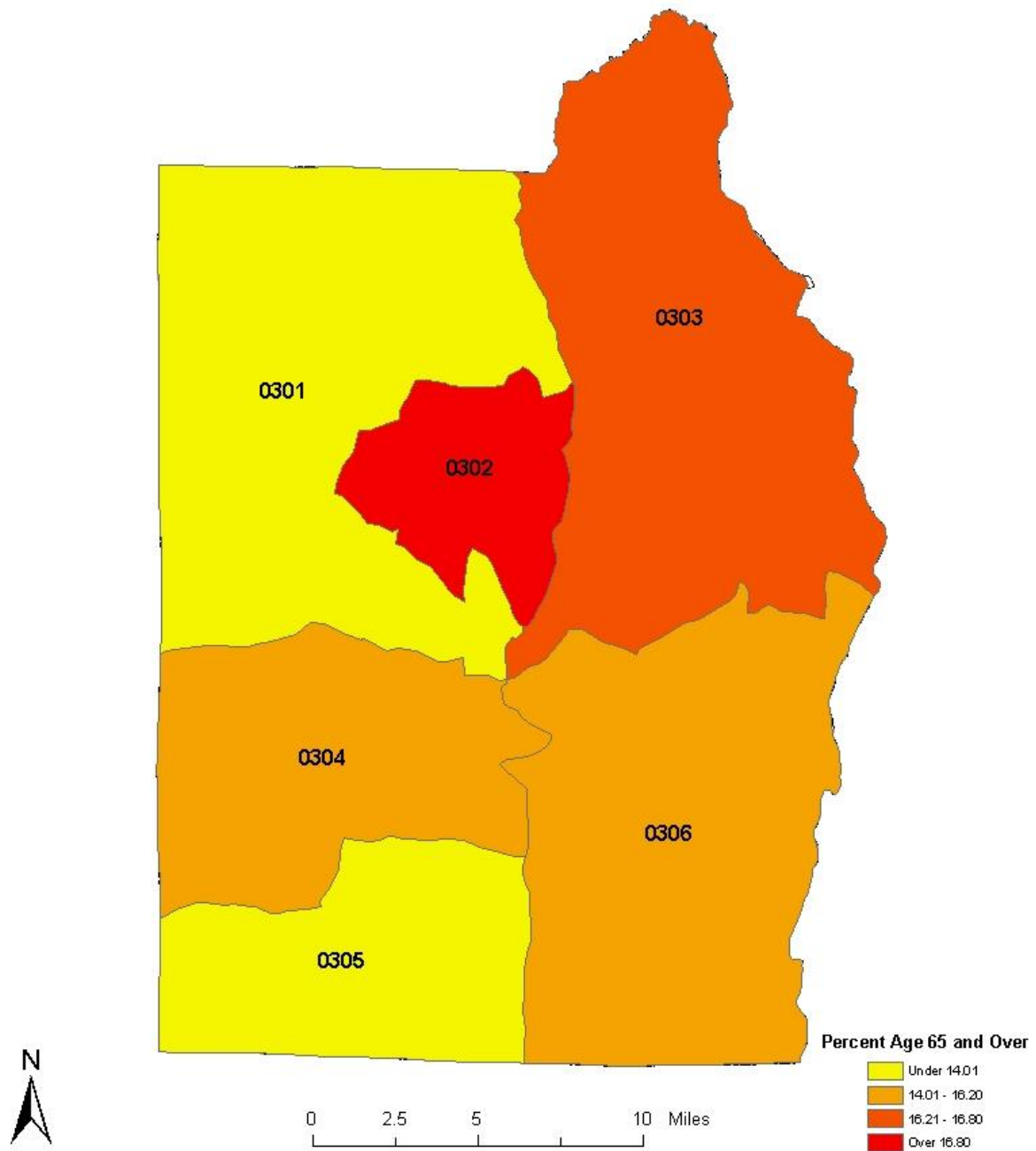
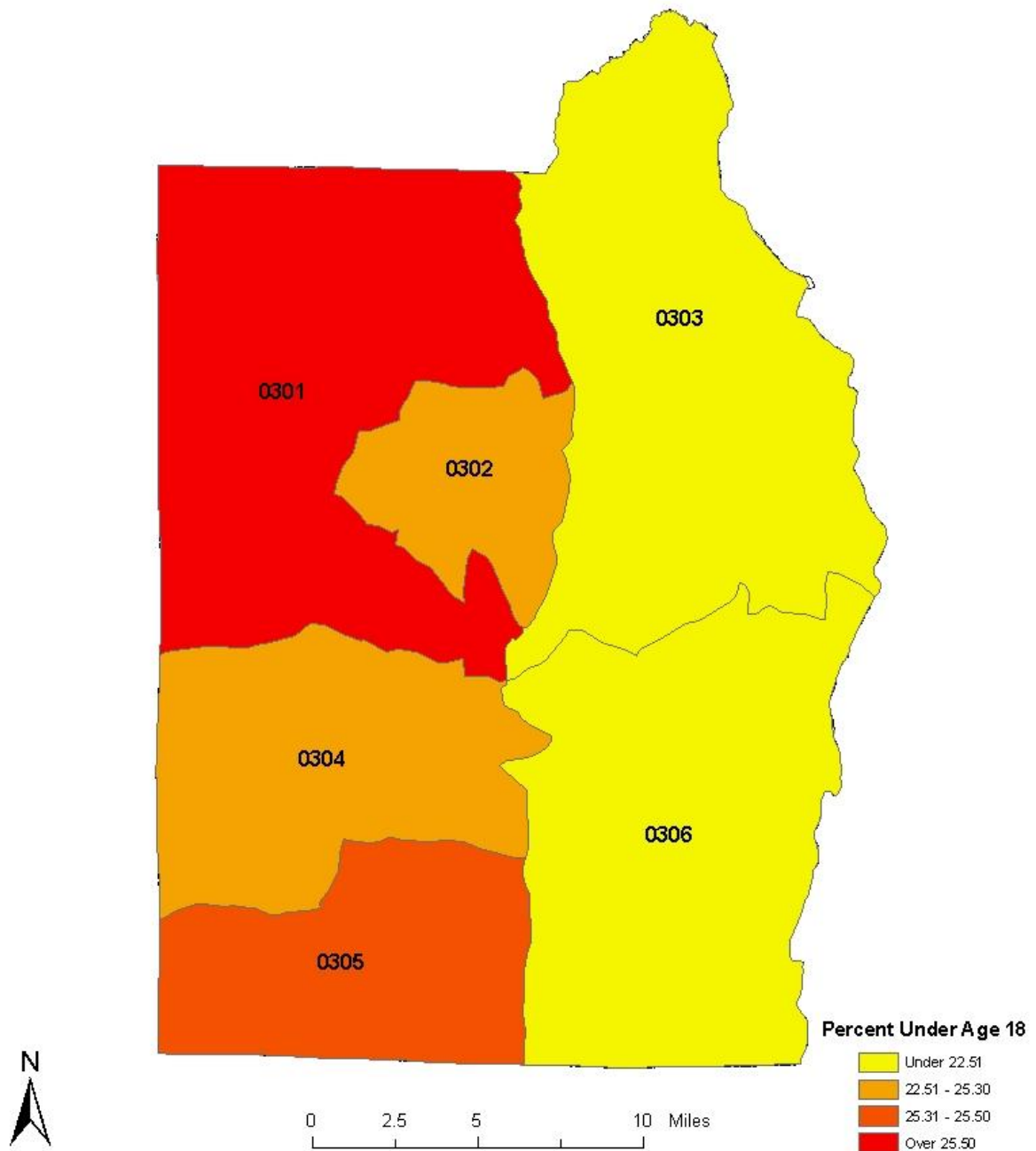


Figure 4.9.3 displays tract percentages of population under the age of 18. The census tract with the highest percentage of children is Tract 0301 with 27.1 %. This is the only census tract in Henry County that has a higher percentage of children than the state (25.3%) and national (25.7%) averages. Tracts 0304 (25.3%) and 0305 (25.5%), which encompass all of Headland and Newville, are tracts that equal or exceed the state level only.

Figure 4.9.3 Henry County Population Age Under 18 by Census Tract

Tract	0301	0302	0303	0304	0305	0306
Population Under 18	552	759	608	455	1,218	333
Percent of Total Population	27.1	23.3	20.5	25.3	25.5	22.5

Percent of Population Under Age 18 by Census Tract

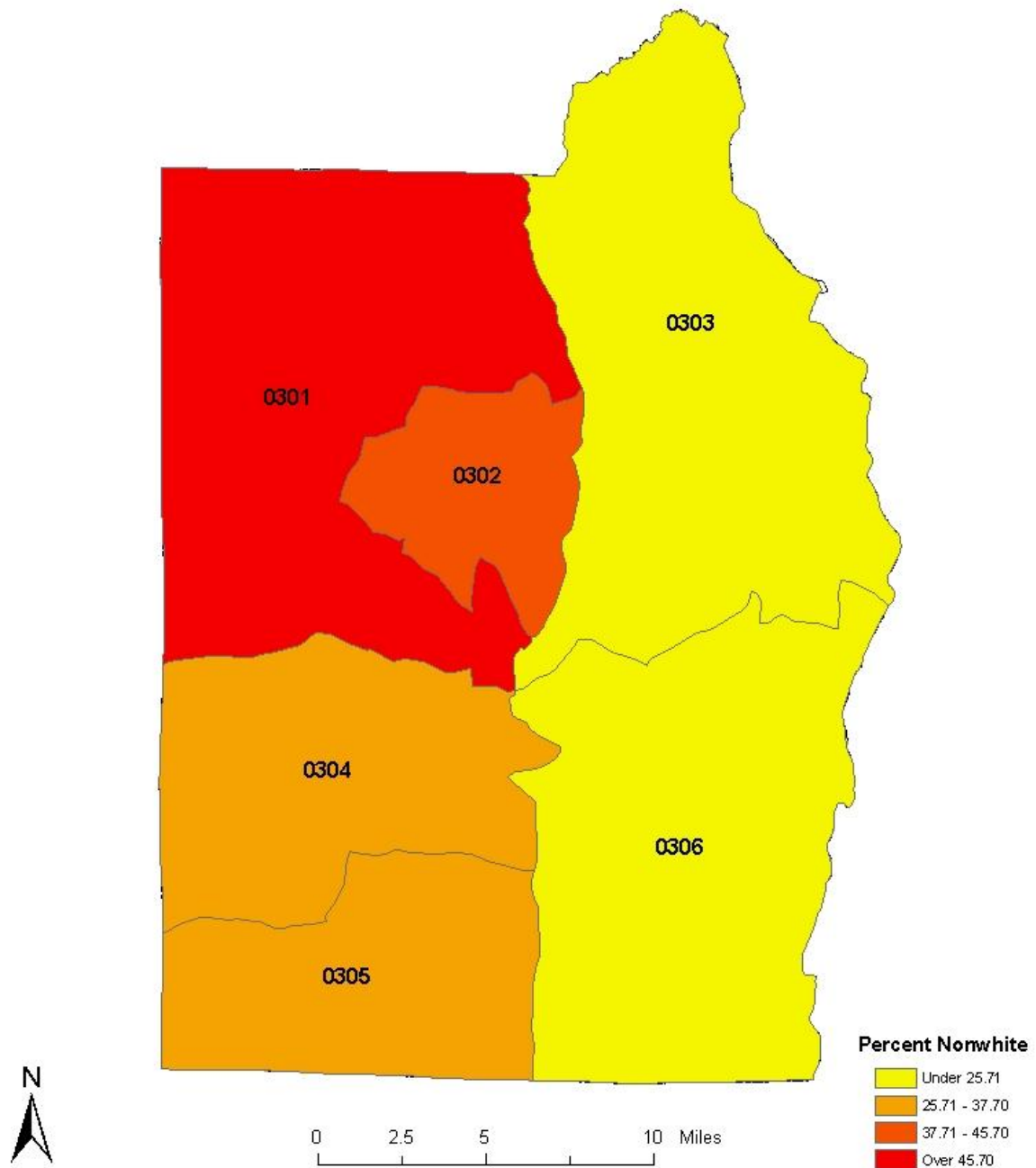


Minority populations are also considered to be vulnerable to natural hazards, generally due to a lesser rate of having medical insurance, unreliable transportation, shoddily constructed housing, and a lesser rate of property insurance. Figure 4.9.4 shows the percentage of nonwhite population by census tract. The highest nonwhite percentage is in Tract 0301, mostly unincorporated, at 55.4%. Other census tracts that have higher percentages of nonwhite population are Tracts 0302 (45.7%) and 0304 (37.7%), which include sections of Abbeville and Newville. The only tract in Henry County that boasts a nonwhite population percentage of less than 20% is Tract 0306 (18.7%), which includes all of Haleburg and a large amount of unincorporated territory.

Figure 4.9.4 Henry County Nonwhite Population by Census Tract

Tract	0301	0302	0303	0304	0305	0306
Population Nonwhite	1,128	1,491	762	679	1,264	276
Percent of Total Population	55.4	45.7	25.7	37.7	26.5	18.7

Percent of Population Nonwhite by Census Tract



Income levels identify those groups that possibly do not have the resources to recover from a natural disaster in an adequate fashion. Figure 4.9.5 shows the per capita income of Henry County in each census tract. Per capita income is calculated by dividing the aggregate income by the population in each census tract. All census tracts in Henry County fall below the state per capita income of \$18,189. Tracts 0302 (\$16,680), 0303 (\$16,474), and 0305 (\$17,742), which include most of Abbeville and Headland, are the highest in the county. The lowest per capita income in Henry County is Tract 0301, which sits in the northwest corner, with \$11,165.

Figure 4.9.5 Henry County Per Capita Income by Census Tract

Tract	0301	0302	0303	0304	0305	0306
Per Capita Income (\$)	11,165	16,680	16,474	13,895	17,742	13,646
Percent of State	61.38	91.70	90.57	76.39	97.54	75.02

Per Capita Income by Census Tract

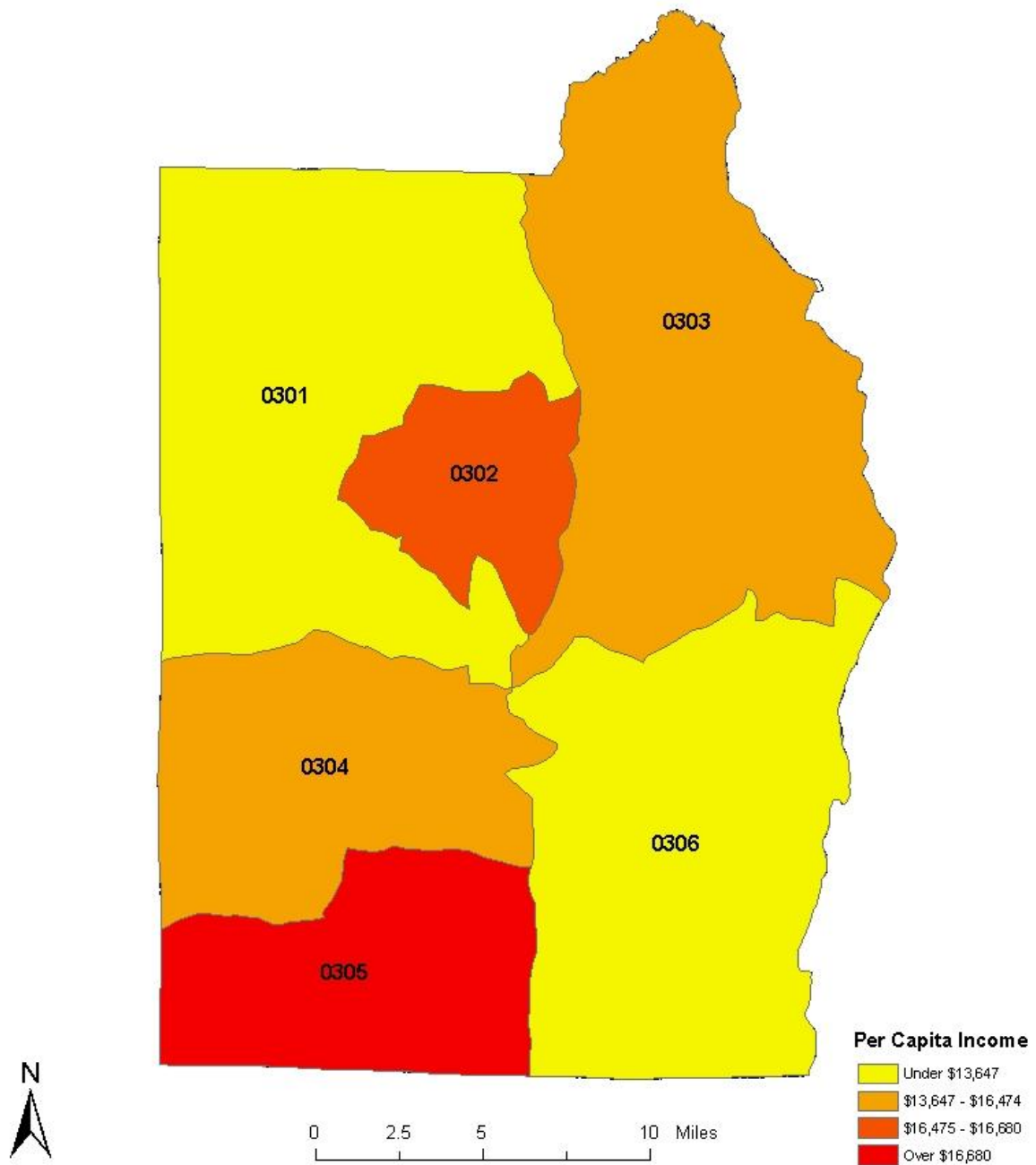
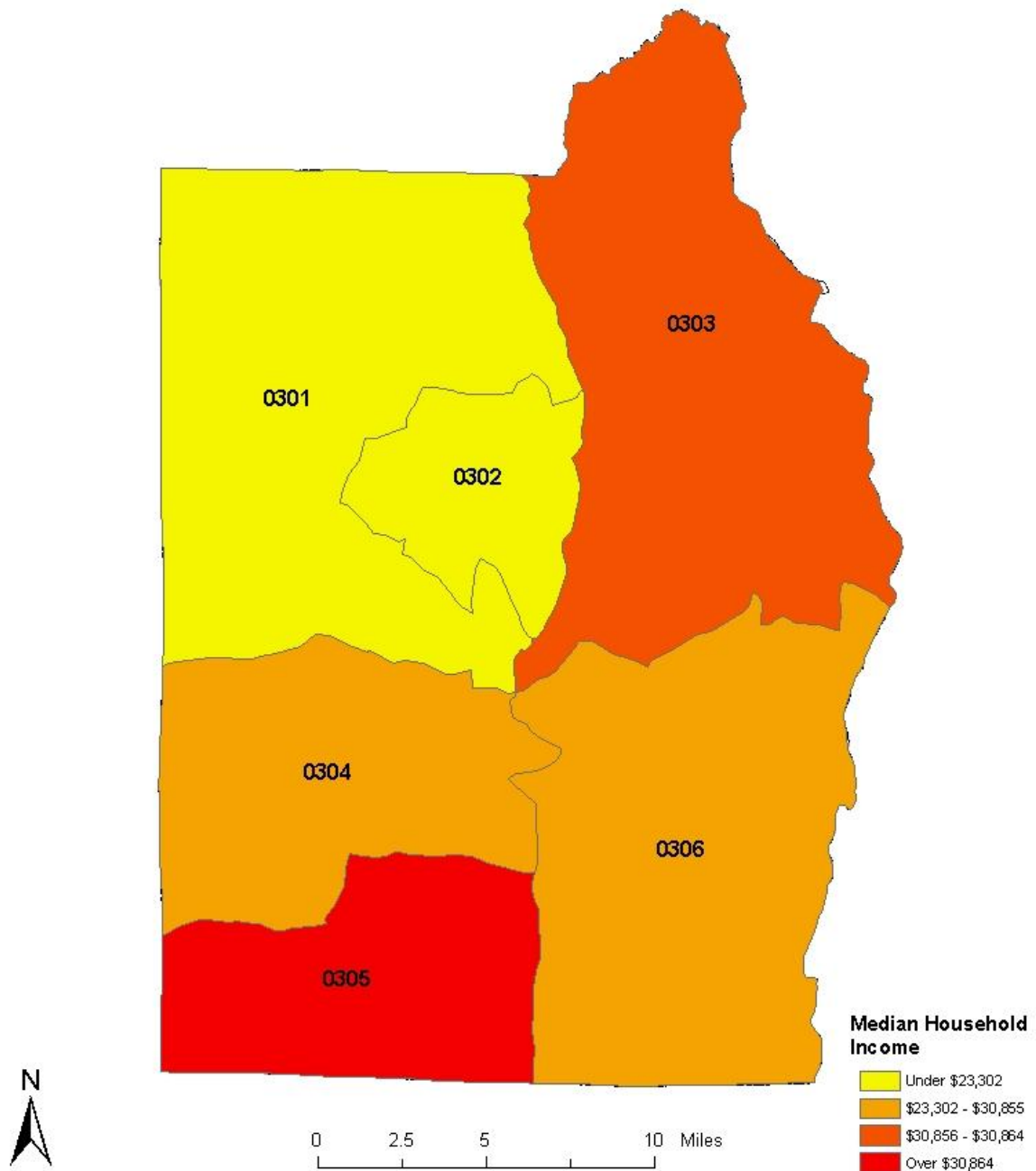


Figure 4.9.6 displays median household income by census tracts. Median household income takes the average of every household income in the tract. Only Tract 0305, with a median household income of \$36,782 exceeds the state median household income of \$34,135. Tracts 0301 and 0302 have the lowest median household incomes at \$22,528 and \$23,301, respectively.

Figure 4.9.6 Henry County Median Household Income by Census Tract

Tract	0301	0302	0303	0304	0305	0306
Median Household Income (\$)	22,528	23,301	30,864	27,625	36,782	30,855
Percent of State	66.00	68.26	90.42	80.93	107.76	90.39

Median Household Income by Census Tract

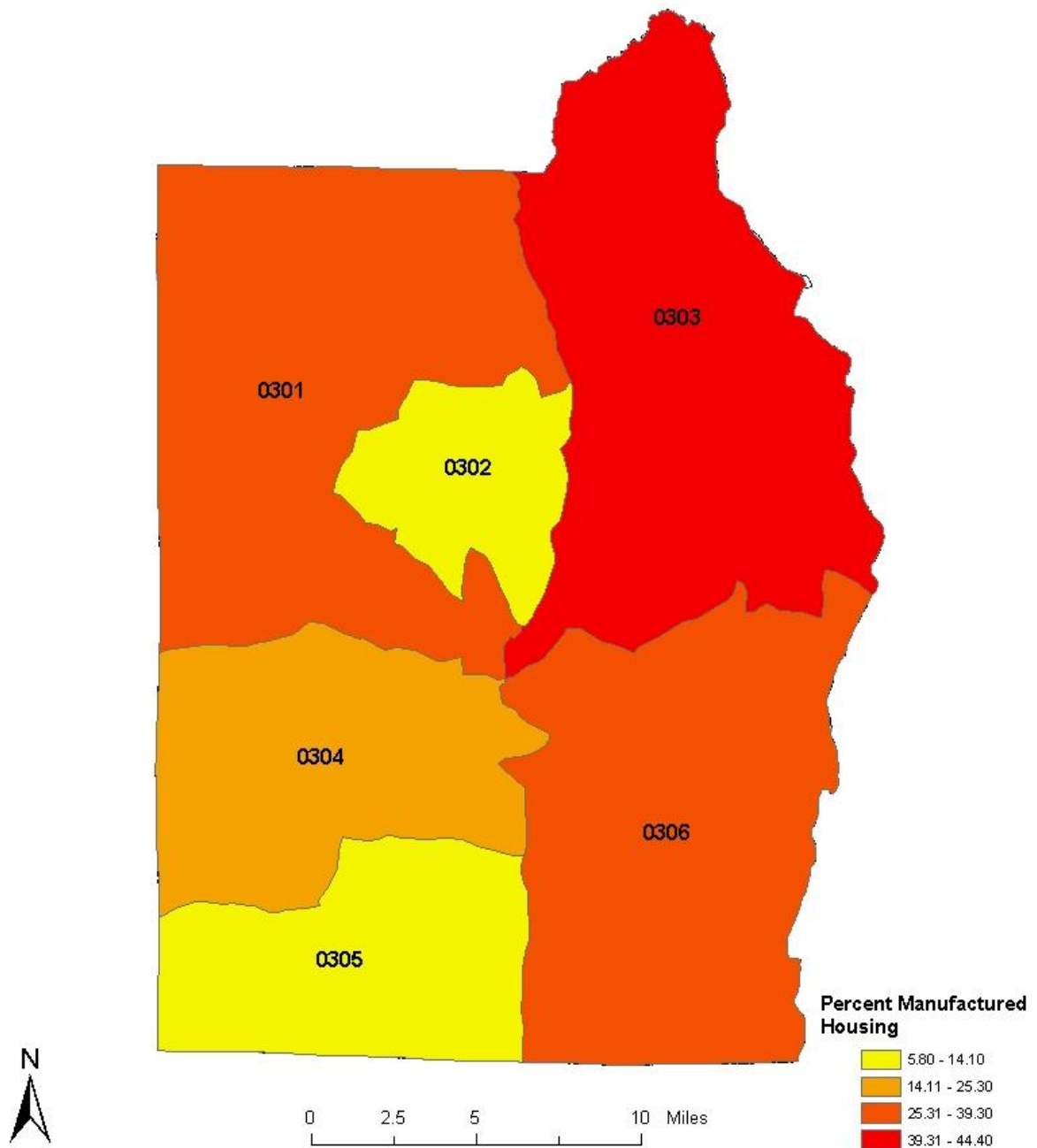


Housing is another concern when taking community vulnerability into account. Manufactured housing has higher damage susceptibility during natural hazards, putting the residents of manufactured houses into higher risk of vulnerability. Figure 4.9.7 shows the percentage of manufactured housing units within a census tract. Tract 0303, encompassing the northeast quarter of the county, has the highest percentage of manufactured housing with 44.4%. Tracts 0301 (39.3%) and 0306 (38.1%), encompassing mostly unincorporated land, also have high percentages of manufactured housing units. Tract 0305, which includes most of Headland, has the lowest percentage of manufactured housing units with 5.8%.

Figure 4.9.7 Henry County Manufactured Housing by Census Tract

Tract	0301	0302	0303	0304	0305	0306
Total Housing Units	940	1,445	2,090	830	2,026	706
Percent Manufactured Homes	39.3	14.1	44.4	25.3	5.8	38.1

Percent of Manufactured Housing by Census Tract



4.10 County Building Stock

It is prudent to examine the number and value of structures that can be affected by natural hazards. Table 4.10.1 lists an estimated residential structure count estimated by Henry County in 2008. Table 4.10.2 lists number of structures by type in each census tract. Figure 4.10.1 shows the building count by census tracts. Abbeville, Headland, and northeastern Henry County have the most buildings.

Table 4.10.1 Residential Structure Count by Jurisdiction

Jurisdiction	Abbeville	Haleburg	Headland	Newville	County
# of Residences	1,520	84	1,953	315	6,348

Table 4.10.2 Building Count by General Occupancy by Census Tract

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
0301	750	2	1	1	1	0	0	755
0302	1,253	9	8	0	2	1	0	1,273
0303	1,864	0	0	1	0	0	0	1,865
0304	705	0	0	0	0	0	0	705
0305	1,861	18	9	1	4	1	0	1,894
0306	654	0	0	0	0	0	0	654

Source: FEMA HAZUS-MH

Figure 4.10.1 Henry County Building Count by Census Tract

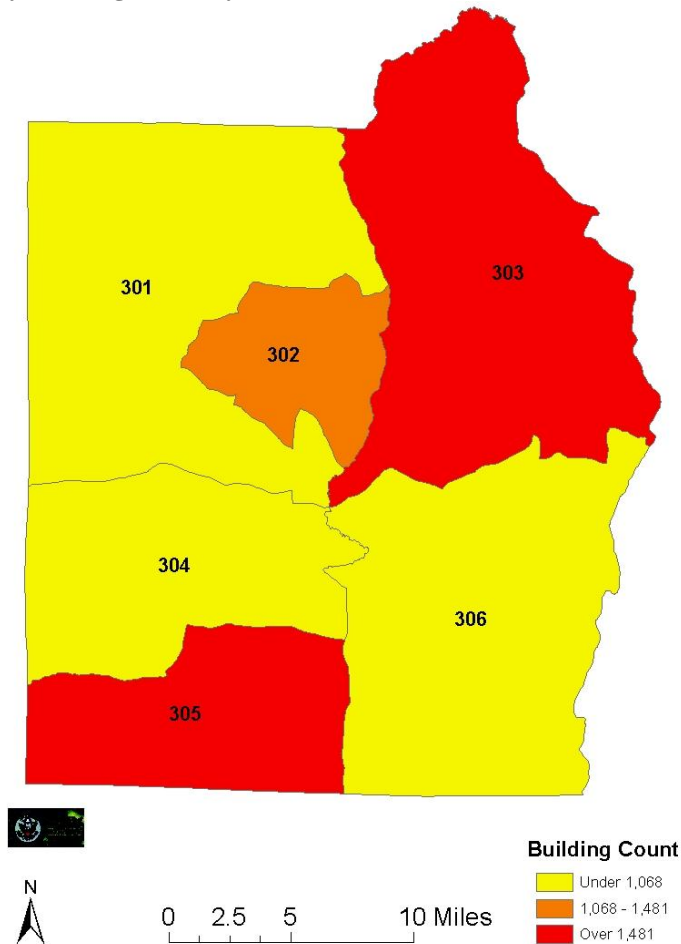


Table 4.10.3 presents an estimated building count by general occupancy for the year 2010. The data was calculated based on exponential growth analysis of figures recorded from 1990 to 2000.

Table 4.10.3 Estimated Building Count by General Occupancy by Census Tract (2010)

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
0301	721	2	1	1	2	0	0	727
0302	1,226	0	5	0	2	2	0	1,235
0303	2,038	0	0	1	0	0	0	2,039
0304	701	0	0	0	0	0	0	701
0305	2,180	19	6	0	8	2	0	2,215
0306	726	0	0	0	0	0	0	726

Source: FEMA HAZUS-MH

Table 4.10.4 presents dollar exposure to hazards by general occupancy. Figure 4.10.2 gives dollar exposure by census tract. These estimates include structure and contents. Tract 0305, which encompasses the southwest section of Henry County and includes Headland, has the highest level of exposure in Henry County, with \$555,196,000.

Table 4.10.4 Dollar Exposure in Thousands of Dollars by Census Tract

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
0301	105,323	13,432	5,964	3,034	2,738	0	0	130,491
0302	247,858	52,470	38,328	1,718	6,844	2,942	6,682	356,842
0303	248,218	954	508	1,908	662	0	0	252,250
0304	112,560	3,940	1,353	990	662	0	0	119,505
0305	398,891	54,054	82,398	5,966	9,972	1,656	2,259	555,196
0306	93,650	0	0	0	0	0	0	93,650

Source: FEMA HAZUS-MH

Figure 4.10.2 Henry County Total Exposure by Census Tract

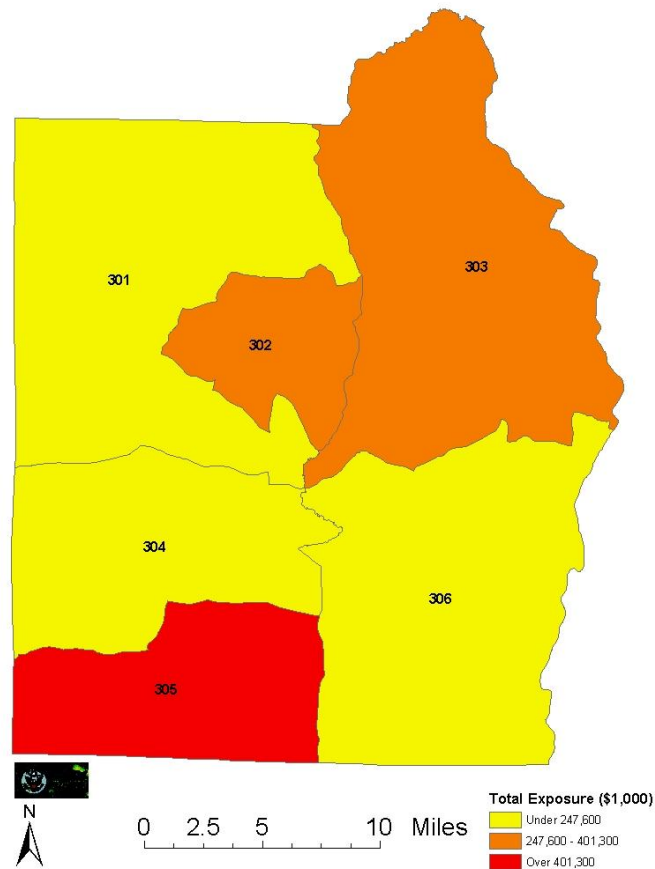


Table 4.10.5 presents an estimate of the dollar exposure to hazards by general occupancy in the year 2010. The data was calculated based on linear growth trends from 1990 until 2000. These estimates include structure and contents. Tract 0305 experienced the greatest increase of exposure in Henry County from 1990 to 2000 and, therefore, is expected to remain the highest in the county at \$944,771,000.

Table 4.10.5 Estimated Dollar Exposure in Thousands of Dollars by Census Tract (2010)

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
0301	156,376	24,715	10,176	5,969	4,950	0	0	202,186
0302	387,047	88,135	63,648	3,065	11,584	5,507	9,697	568,683
0303	391,995	578	272	3,692	905	0	0	397,442
0304	174,251	5,044	1,508	1,733	235	0	0	182,771
0305	663,660	93,378	152,952	11,661	17,306	2,813	3,001	944,771
0306	146,845	0	0	0	0	0	0	146,845

Source: FEMA HAZUS-MH

4.11 Critical Facilities/Infrastructure Identification

The Henry County Hazard Mitigation Planning Committee defined critical facilities and infrastructure as critical to the health and welfare of the entire jurisdiction. They become essential in the event of a natural disaster. Some of the critical facilities/infrastructure submitted includes police stations, fire stations, schools, and hospitals. Also, critical facilities can be lifelines that provide the jurisdiction with necessities such as potable water, transportation corridors necessary for connecting to other areas and for evacuation purposes, and locations with large numbers of vulnerable populations.

Figures 4.11.1 through 4.11.7 illustrate the location of some critical facilities in Henry County. The facilities illustrated include community facilities that ensure the welfare of people within the County. Some critical facilities/infrastructure are not illustrated due to the sensitive nature of the information.

Police Departments (Figure 4.11.1)

Henry County Sheriff's Department

101 W Court Square, Suite G
Abbeville, AL 36310

Abbeville Police Department

101 E Washington Street
Abbeville, AL 36310

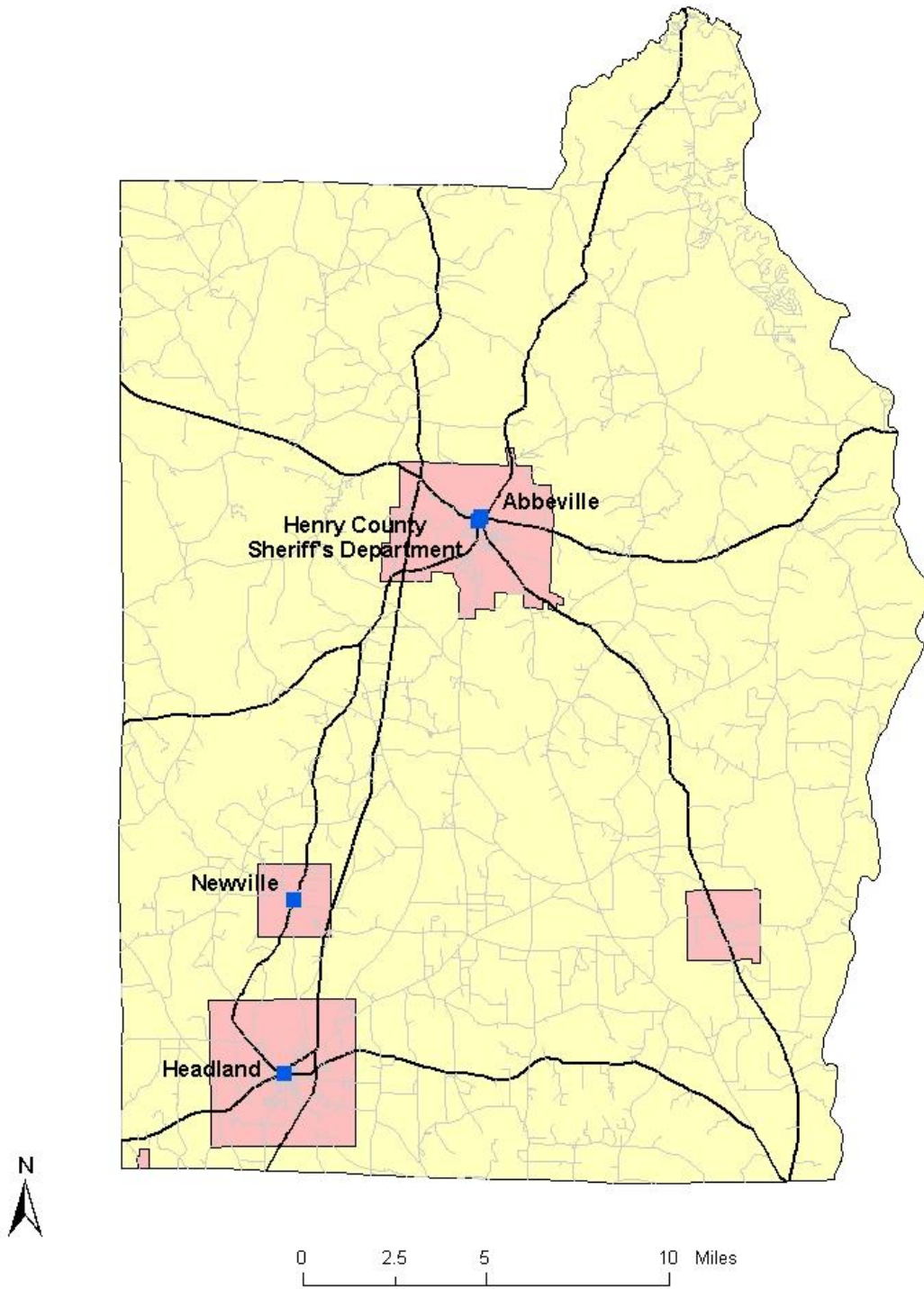
Headland Police Department

9 Park Street
Headland, AL 36345

Newville Police Department

P.O. Box 119
Newville, AL 36353

Figure 4.11.1 Henry County Critical Facilities: Police Departments



Fire Departments (Figure 4.11.2)

Abbeville Fire & Rescue

201 Bradley St.
Abbeville, AL 36310

Haleburg Fire & Rescue

P.O. Box 613
Columbia, AL 36319

Headland Fire & Rescue

456 East Main St.
Headland, AL 36345

Newville Fire Department

P.O. Box 218
Newville, AL 36353

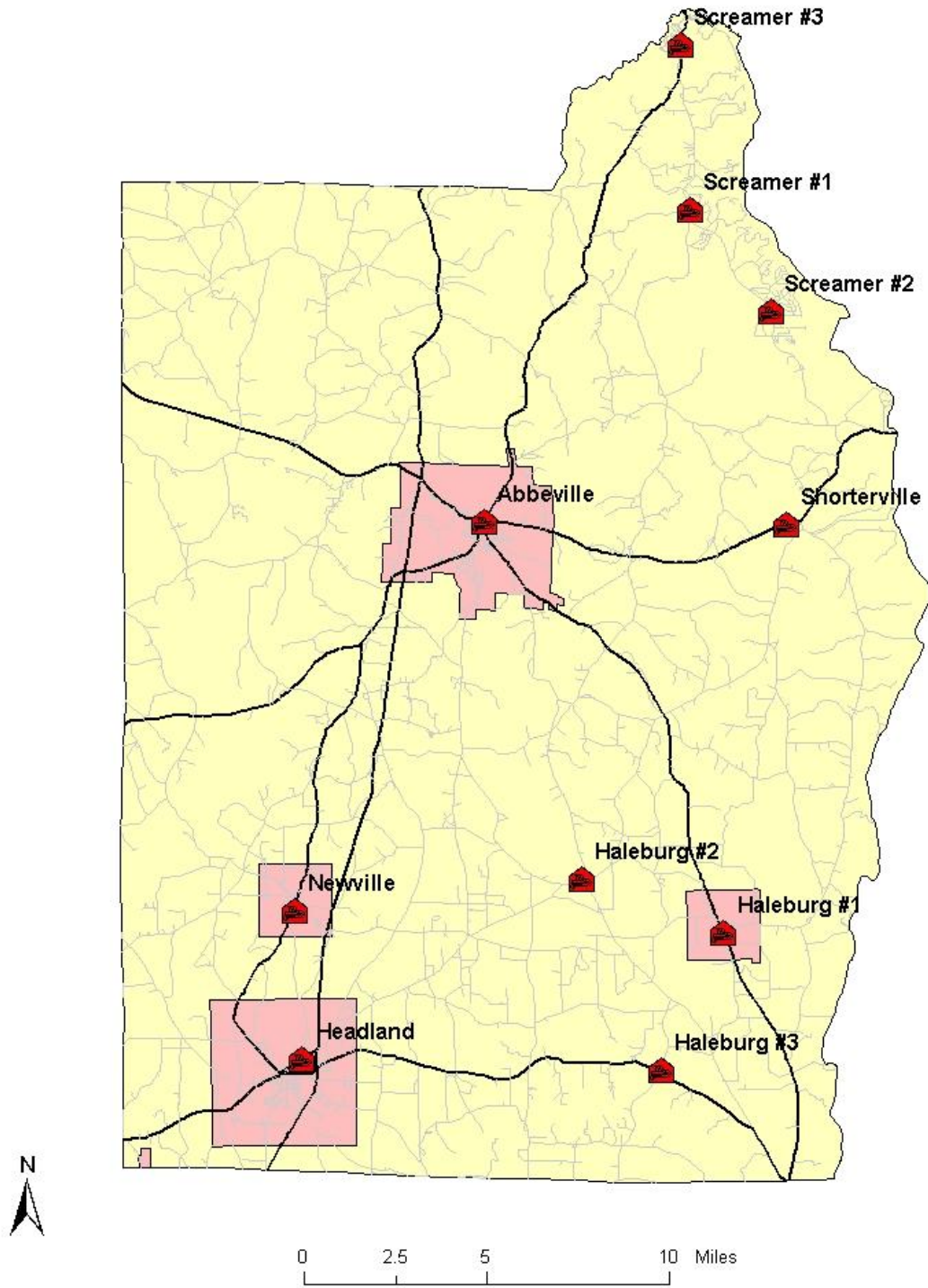
Screamer VFD

918 County Road 93
Abbeville, AL 36310

Shorterville VFD

P.O. Box 29
Shorterville, AL 36373

Figure 4.11.2 Henry County Critical Facilities: Fire Departments



Schools (Figure 4.11.3)

Abbeville Alternative School

300-A Trawick Street

Abbeville, AL 36310

Abbeville Elementary School

100 Elm Street

Abbeville, AL 36310

Abbeville High School

411 Graball Cutoff

Abbeville, AL 36310

Abbeville Middle School

200 Gilliam Street

Abbeville, AL 36310

Headland Alternative School

200 Sparks Street

Headland, AL 36345

Headland Elementary School

305 Mitchell Street

Headland, AL 36345

Headland Head Start Center

106 Brattle Street

Headland, AL 36345

Headland High School

8 Sporman Street

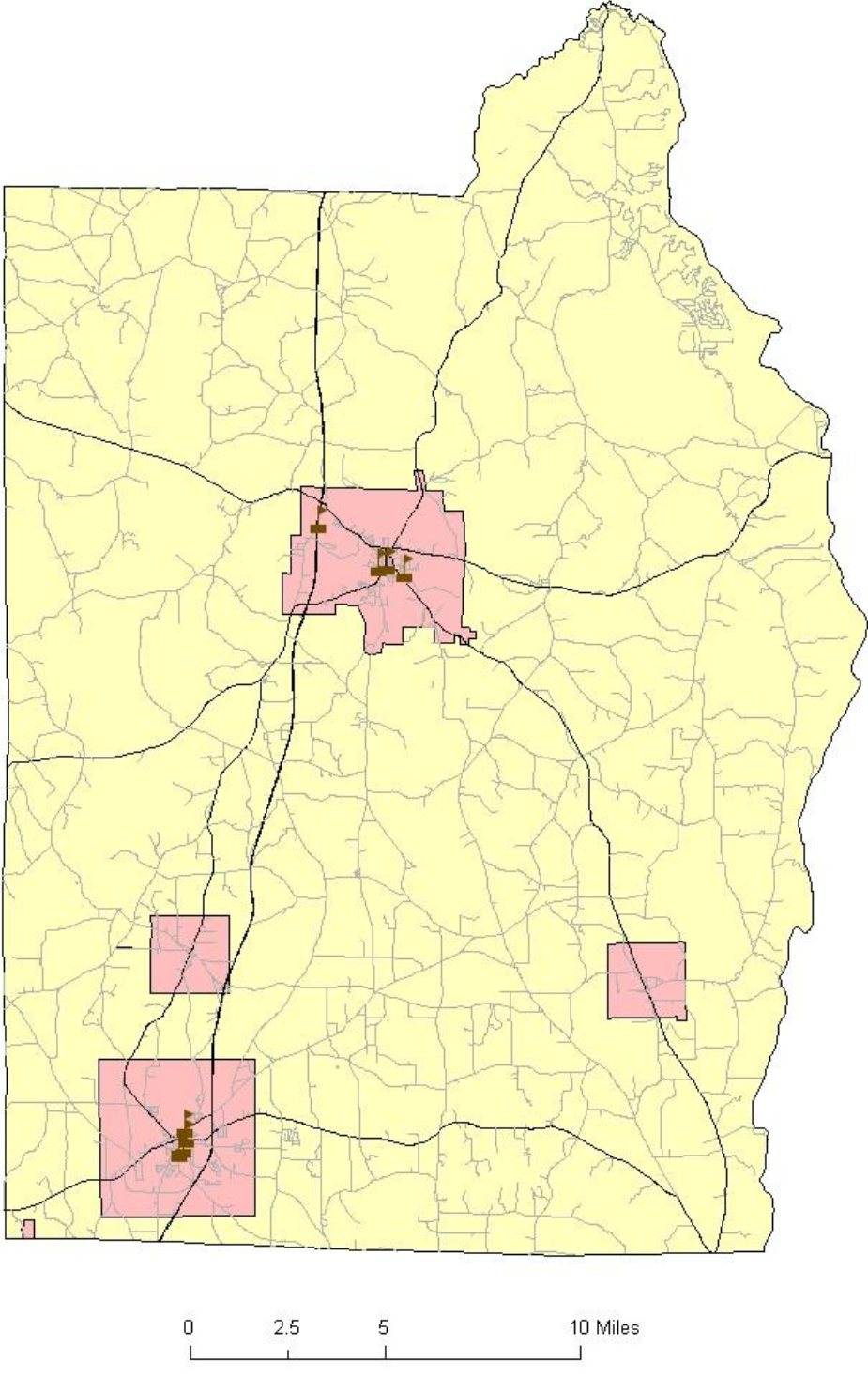
Headland, AL 36345

Headland Middle School

1 Martin Luther King Drive

Headland, AL 36345

Figure 4.11.3 Henry County Critical Facilities: Schools



Outside Warning Sirens (Figure 4.11.4)

Abbeville (5)

Columbia Road (AL Hwy 95)/South Doswell Street

Dothan Road

Ozark Road (AL Hwy 27)

West Washington Street (AL Hwy 10)

East Washington Street (AL Hwy 10)

Headland (4)

AL Hwy 134 West

Broad Street (AL Hwy 173)/Carimar Place

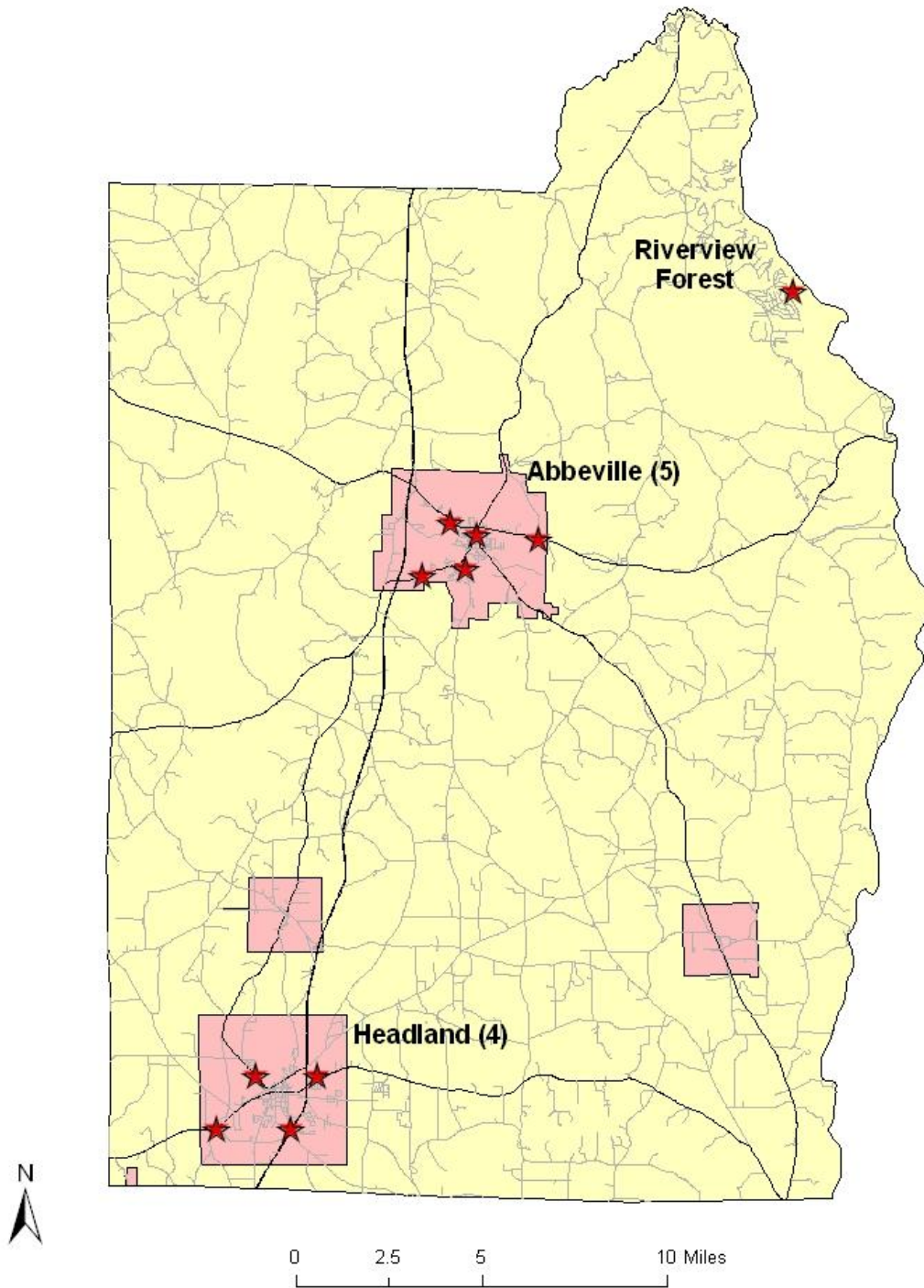
U.S. Hwy 431/Dave Street

AL Hwy 134/Experiment Road

Henry County (1)

Riverview Forest

Figure 4.11.4 Henry County Critical Facilities: Outside Warning Sirens



Major Transportation Routes (Figure 4.11.5)

U.S. Highway 431

Alabama Highway 10

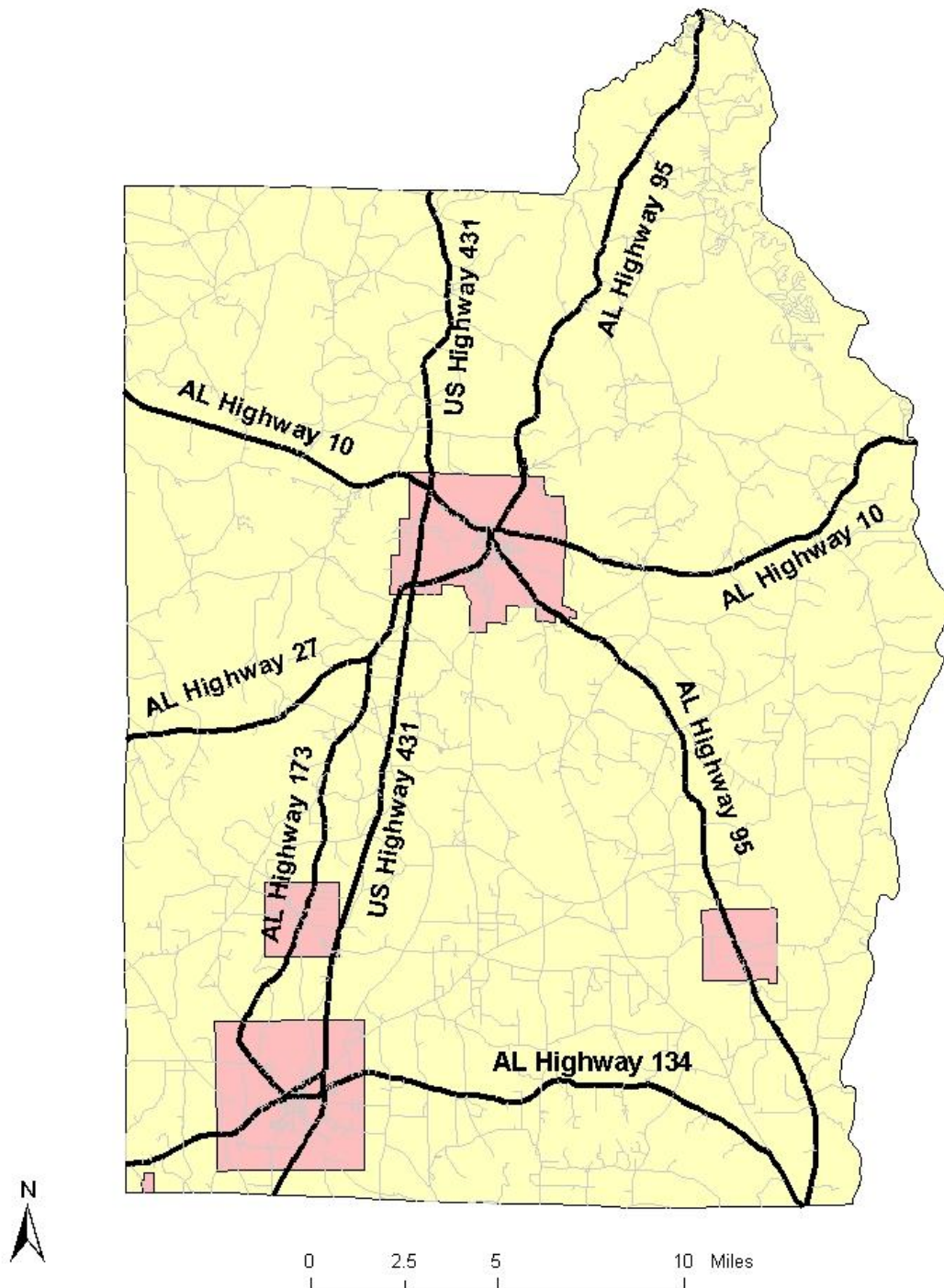
Alabama Highway 27

Alabama Highway 95

Alabama Highway 134

Alabama Highway 173

Figure 4.11.5 Henry County Critical Infrastructure: Major Transportation Routes



Hurricane Evacuation Routes (Figure 4.11.6)

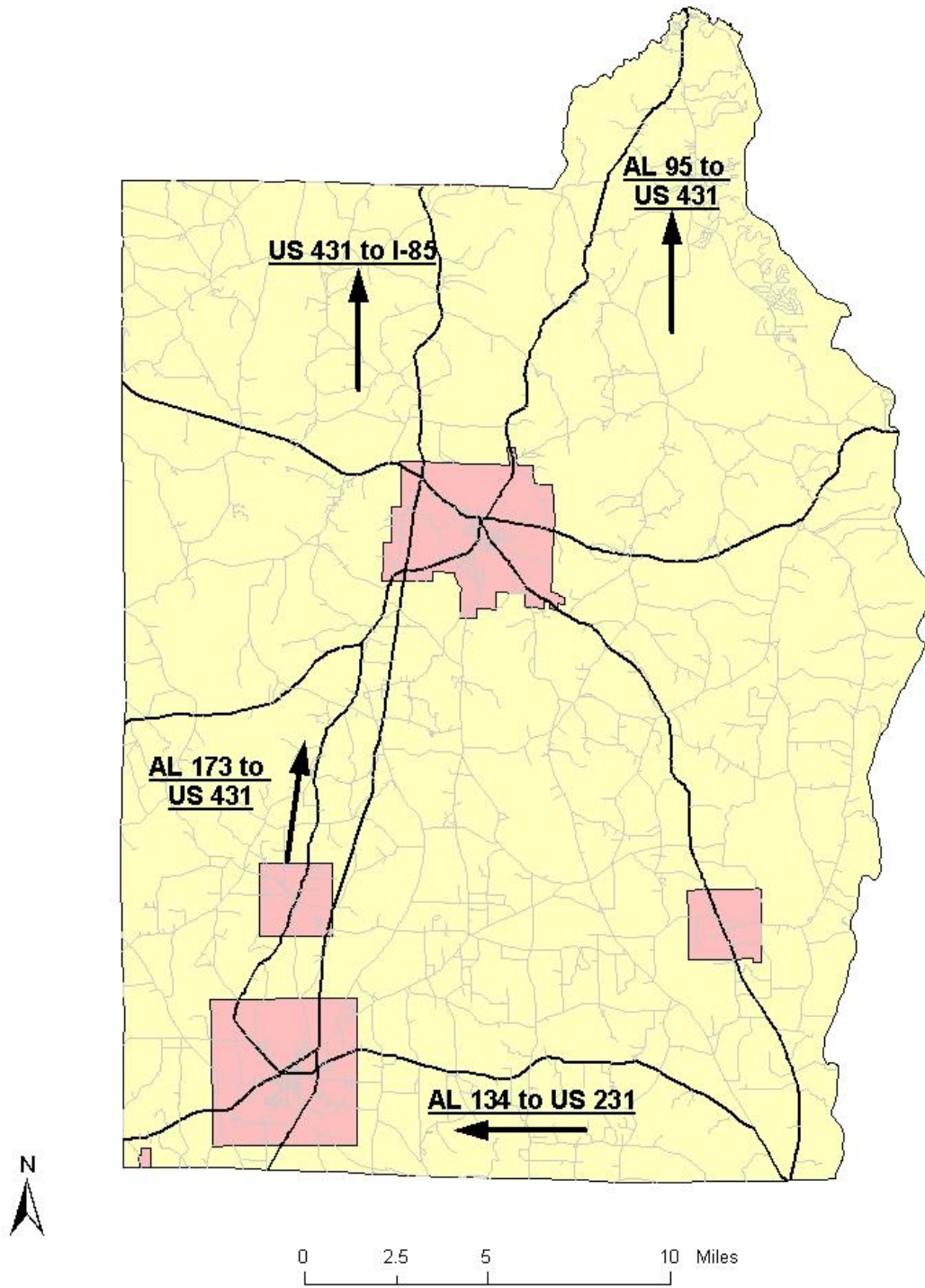
U.S. Highway 431

AL Highway 95

AL Highway 134

AL Highway 173

Figure 4.11.6 Henry County Critical Infrastructure: Hurricane Evacuation Routes



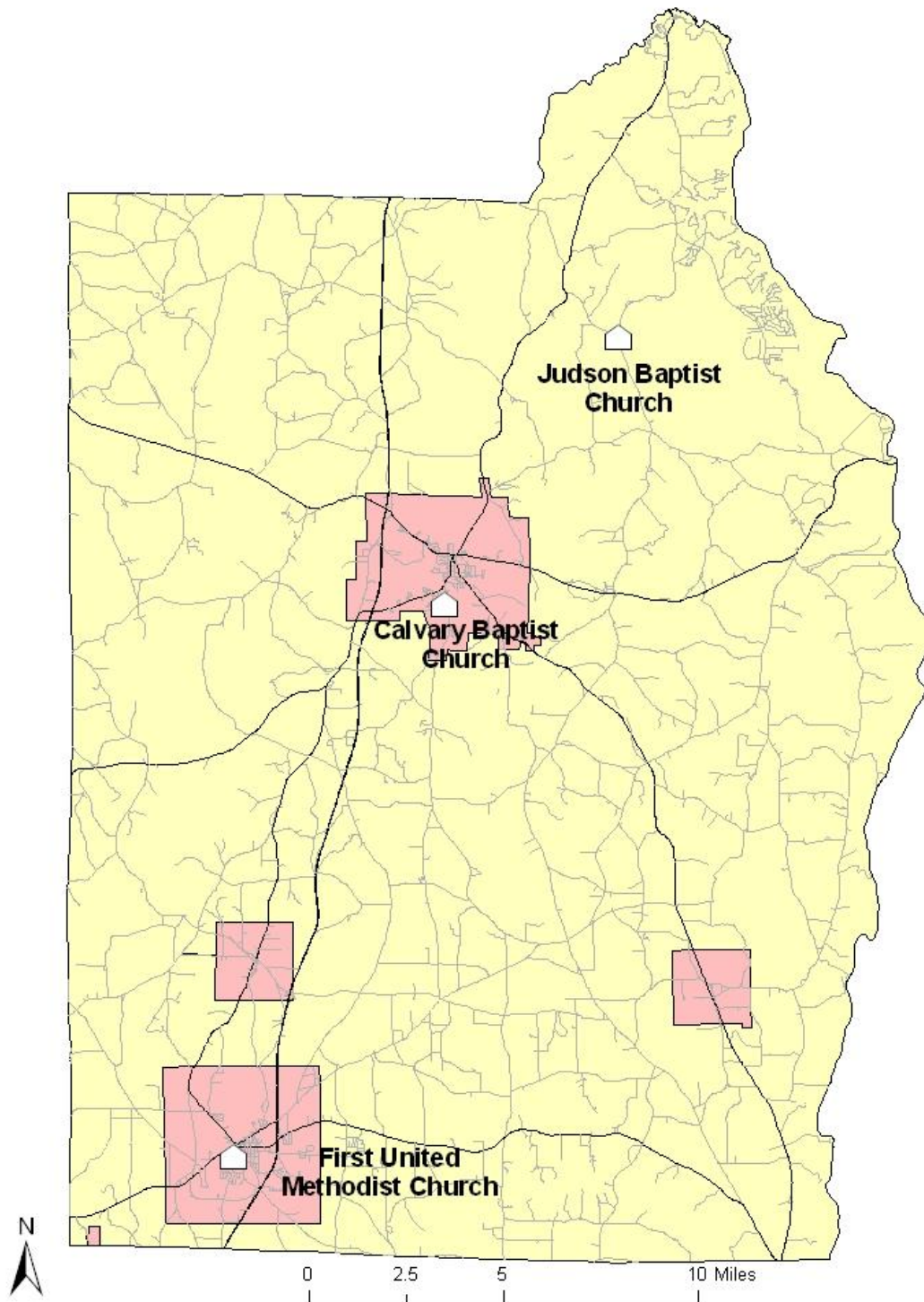
Emergency Shelters (Figure 4.11.7)

Abbeville: Calvary Baptist Church

Headland: First United Methodist Church

Henry County: Judson Baptist Church (Screamer) - Alternate

Figure 4.11.7 Henry County Critical Infrastructure: Emergency Shelters



Hazardous Material Sites

Henry County (Unincorporated)

Agro Distributors (pesticides)

Abbeville

Teledyne (nitric acid, sulfuric acid, hydrofluoric acid)

Dowdle Gas Company (LPG)

Cutler (nitrogen)

CenturyTel (sulfuric acid)

Greenbush Wood Products (diesel fuel, gasoline)

Headland

Golden Peanut Warehouse (pesticides)

Southern States Cooperative (pesticides)

CenturyTel (sulfuric acid)

Newville

Lesaffre Yeast Corporation (nitric acid, ammonium hydroxide, phosphoric acid, sulfuric acid, sodium hydroxide, chlorine, sodium benzoate, magnesium sulfate, diesel fuel)

Henry County Cotton Gin

Kimbrel Farm Custom Services

4.12 Critical Facilities/Infrastructure by Jurisdiction

Tables 4.12.1 through 4.12.5 display critical facilities and infrastructure by jurisdiction. Also, the estimated replacement value of each critical unit is given, according to their insured value. The information listed below was provided by the individual jurisdictions.

Table 4.12.1 Henry County Critical Facilities/Infrastructure

Facility	Replacement Value
Henry County Courthouse	\$2,000,000
Henry County Annex	\$600,000
County Shop (4 buildings)	\$462,000
County Jail	\$1,100,000

Table 4.12.2 City of Abbeville Critical Facilities/Infrastructure

Facility/Infrastructure	Current Replacement Value
Fire Department	\$169,622
City Hall	\$449,240
Police Department	\$213,275
Library	\$453,777
Senior Center	\$336,190
Community Center	\$64,158
Armory	\$954,810
Gymnasium	\$281,377
Dept. of Human Resources	\$882,194
City Shop	\$161,846
Well/Tank/Pump (Ozark Road)	\$406,886
Well/Pump (West Washington)	\$13,612
Well/Pump (Industrial Park Road)	\$67,553

Water Tank (Bradley Street)	\$567,222
Water Plant/Well/Pump (East Williams)	\$974,331
Well/Pump (Highway 95 South)	\$453,777
Water Tank (Graball Cut-off)	\$400,838
East Lagoon Basin & Pump	\$142,183
South Lagoon	\$440,941
Abbeville Elementary School	\$7,000,000
Abbeville Middle School	\$4,500,000
Abbeville High School	\$14,000,000
Henry County School Board Office	\$750,000
Abbeville Christian Academy	\$3,166,000
• Building 1	\$1,238,000
• Building 2	\$1,188,000
• Building 3	\$103,000
• Building 4	\$34,000
• Building 5	\$9,000
• Building 6	\$594,000

Table 4.12.3 Town of Haleburg Critical Facilities/Infrastructure

Facility	Replacement Value
Haleburg Senior Center	\$175,000
Town Hall	\$85,000

Table 4.12.4 City of Headland Critical Facilities/Infrastructure

Facility/Infrastructure	Current Replacement Value
Headland Elementary School	\$11,700,000
Headland Middle School	\$6,800,000
Headland High School	\$16,000,000
Headland City Hall (incl. Police Department)	\$869,520
Headland Fire Station	\$381,261
Henry County Health Department	N/A
Headland Head Start	N/A
Burdeshaw-Solomon Senior Center	\$121,759
Blanche R. Solomon Library	\$607,558
Sewer Treatment Plants (North Lagoon, South Lagoon w/ Building)	\$279,130
City Yard w/ Building	\$34,436
Headland City Park w/ Bldg and Douglass Park w/ Bldg	\$257,833
Dr. Edwin J. Morriss Park w/ Building	\$55,013
Headland Water Well w/ Building (Roberts St.)	\$491,950
Headland Water Well w/ Building (Peachtree St.)	\$491,950
Headland Municipal Airport	\$1,324,528
Alabama Power Co. Main Office (Grove St.)	N/A
Alabama Power Co. Warehouse (W. Railroad Ave.)	N/A
Alabama Power Co. Substation (W. Church St.)	N/A
Alabama Power Co. Substation (Solomon Rd.)	N/A

Table 4.12.5 Town of Newville Critical Facilities/Infrastructure

Structure	Replacement Cost
Pump House (S Railroad St)	\$15,812
Pump House (E Columbia Rd)	\$17,893
Newville Town Hall	\$51,257
Water Tank	\$91,936

Rec Center	\$91,107
Storage Building	\$35,693
Warehouse	\$12,732

4.13 Repetitive Loss Properties

According to the State NFIP Coordinator, there is no repetitive loss properties located in any jurisdiction in Henry County.

4.14 Analyzing Development Trends

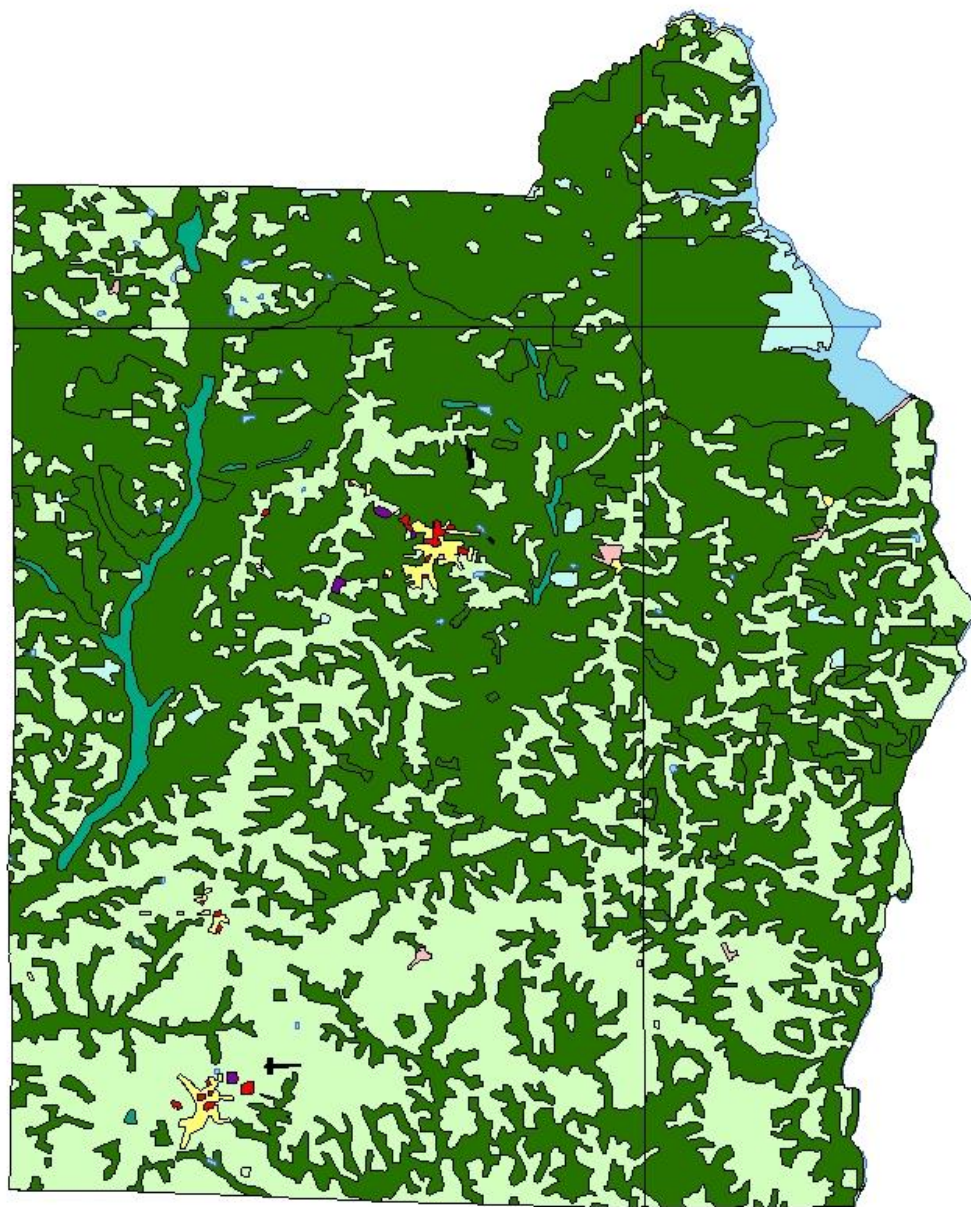
Note: Henry County does not have a land use plan. At this time, more recent comprehensive data than 2000 has not been developed. The information is still considered mostly accurate.

Henry County is a mostly rural county with minor pockets of development in Abbeville and Headland. Henry County is dominated by forests and agricultural land, which compose over 96% of land use. Table 4.14.1 illustrates the types of land use within Henry County.

Table 4.14.1 Henry County Land Use in 2000 (acres)

Residential	Commercial	Industrial	Transportation	Public	Agriculture	Forest	Total Acreage
3,700	410	488	8,100	600	121,882	224,500	359,680
1.03%	0.11%	0.14%	2.25%	0.17%	33.89%	62.42%	100.00%

Figure 4.14.1 illustrates land use in Henry County. Forest use fills a majority of the County, especially the northern region. Agricultural use fills in most of the rest of the County, especially through the south.



Land Use Type

 Other	 Other Built Up Land
 Residential	 Agricultural
 Commercial	 Forest
 Industrial	 Water
 Transportation	 Wetlands

Figure 4.14.1 Henry County Land Use Source: HAZUS

Henry County has only added slightly more than 1,000 residents in the past 40 years. Data from the U.S. Census Bureau and the Center for Business and Economic Research at The University of Alabama (CBER) project that Henry County will grow at 6.9% over the next 25 years (Table 4.14.2). Most of the additional development is projected to be residential development near the Headland area, due to outgrowth from the Dothan area north into southern Henry County.

Table 4.14.2 Henry County Population Projections 2010-2025

	Census 2000	2005 Estimate	2010	2015	2020	2025	Change (2000- 2025)	Percent Change
Population	16,310	16,425	16,977	17,218	17,373	17,428	1,118	6.9
Households	6,525	6,667	6,795	6,892	6,955	6,977	452	6.9

Sources: U.S. Census Bureau, Center for Business and Economic Research at the University of Alabama

Section 5 – Mitigation

This section of the plan addresses requirements of Interim Final Rule (IFR) Section 201.6(c)(3).

Section Contents

- 5.1 Mitigation Planning Process
- 5.2 Henry County
- 5.3 City of Abbeville
- 5.4 Town of Haleburg
- 5.5 City of Headland
- 5.6 Town of Newville

Section	Section Updates
5.x	<ul style="list-style-type: none"> • Changes in numbering and organization
5.1	<ul style="list-style-type: none"> • Narrative reflects update process for evaluating mitigation goals and actions • Changed title of section
5.2	<ul style="list-style-type: none"> • Incorporated Henry County Action Plan • Added “Completed/Deleted Actions” table
5.3	<ul style="list-style-type: none"> • Incorporated City of Abbeville Action Plan • Added “Completed/Deleted Actions” table
5.4	<ul style="list-style-type: none"> • Incorporated Town of Haleburg Action Plan • Added “Completed/Deleted Actions” table
5.5	<ul style="list-style-type: none"> • Incorporated City of Headland Action Plan • Added “Completed/Deleted Actions” table
5.6	<ul style="list-style-type: none"> • Incorporated Town of Newville Action Plan • Added “Completed/Deleted Actions” table

5.1 Mitigation Planning Process

Each Hazard Mitigation Planning Committee member was asked to review the countywide mitigation goals, as well as their jurisdictional action plan, to assess progress since the Plan's adoption. The Committee members were asked to reevaluate their Action Plan based on information from the risk assessment, including the likelihood of hazard occurrence, the spatial extent of the hazard occurrence, and the impact of the hazard occurrence in their jurisdictions.

During their review of the currently adopted mitigation strategies, each member of the Hazard Mitigation Planning Committee was asked to consider the following criteria that were used during the drafting of the original Plan: funding options, political support, public support, project legality, preservation of the environment, staff capability, and potential cost/benefit ratio. Direct costs and benefits of each mitigation strategy were considered, along with indirect costs and benefits such as social effects. If a project's proposed benefits outweighed its proposed costs, the project was considered to be an eligible action strategy for the jurisdiction. At time of application and implementation of mitigation measures, each project will be evaluated on economic, social, and technical feasibility based upon the priorities of the program being applied to and the availability of funding.

Each action item is prioritized based on the above listed criteria. High priority projects have an estimated implementation timeframe of one to two years, Medium priority projects have an estimated implementation timeframe of two to five years, Low priority projects have an estimated implementation timeframe of within the next ten years, and Ongoing projects are projected for continued implementation.

Henry County, the City of Abbeville, the Town of Haleburg, the City of Headland, and the Town of Newville each approved the continuation of the formerly identified set of goals for the entire county displayed below.

- Prevention of loss of life
- Reduction of property damage
- Implementation of a comprehensive hazard mitigation effort for periods both prior to and immediately following events, particularly during the recovery phase
- Strategies to locate funding for mitigation efforts
- Plan for cost-effectiveness of strategies that reduce risk and vulnerability.
- Protect emergency workers and volunteers to enable safe and efficient disaster response
- Continue to enhance the capabilities of the Henry County Emergency Operations Center (EOC) for adequate response to disasters

5.2 Henry County

Identified Objectives

- Improve information dissemination before and during hazard events
- Ensure critical facilities are structurally sound
- Public awareness of safety and planning importance
- Ensure operational ability during hazard events
- Keep Emergency Operations Center up-to-date and versatile for comprehensive responsiveness
- Improve stormwater management
- Proper maintenance of public facilities

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Continue to purchase additional warning sirens and weather radios to place throughout the County	Henry County EMA	Grant Funding	All	Ongoing
Continue public awareness throughout the County for hazard events	Henry County EMA	Henry County / Grant Funding	All	Ongoing
Continue to implement and update Emergency Operations Plan as needed (currently upgrading EOP)	Henry County EMA	Henry County / Grant Funding	All	Ongoing
Continue implementation of ALDOT County Road Design Policy standards	Henry County Engineer	Henry County	All	Ongoing
Continue performing maintenance to the Walter F. George Lock and Dam	US Army Corps of Engineers	Federal Funding	Dam Failure, Flooding	Ongoing
Continue training storm spotters within Henry County	Henry County EMA	Henry County	High Winds	Ongoing
Work together with the Henry County Alabama Forestry Office for wildfire prevention measures	Henry County EMA	Henry County	Wildfires	Ongoing
Update the floodplain ordinance to stay consistent with NFIP standards	Henry County Engineer	Henry County	Flooding	High
Purchase backup generators for EOC and other critical facilities	Henry County EMA	Grant Funding	All	High
Repair drainage problem on County Road 55 between AL Highway 134 and County Road 12	Henry County Road and Bridge	Grant Funding	All (primarily Flooding)	High
Repair ditch on County Road 4	Henry County Road and Bridge	Grant Funding	All (primarily Flooding)	High
Repair gully on County Road 55	Henry County Road and Bridge	Grant Funding	All (primarily Flooding)	High
Construct community shelter	Henry County EMA	Grant Funding	High Winds	Medium

Completed/Deleted Actions

Project	Status	Comments
Facilitating placement of individual safe shelters throughout County	Deleted	These projects create a liability on Henry County
Update and revise floodplain and flood zone maps through FEMA	Completed	Updated flood maps were completed in August 2008
Expansion of EOC Facilities	Completed	EOC now has a multi-room center for emergency response

5.3 City of Abbeville

Identified Objectives

- Improve information dissemination before and during hazard events
- Ensure critical facilities are structurally sound
- Public awareness of hazard events
- Ensure operational ability during hazard events
- Proper maintenance of public facilities
- Protect valuable resources during hazard events

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Drainage improvements on N. Doswell Street to repair flooding damage from March 2009	City of Abbeville	FEMA PA	Flooding	Ongoing
Drainage improvements near Abbeville Middle School on Gilliam St. to repair flooding damage from March 2009	City of Abbeville	FEMA PA	Flooding	Ongoing
Continue responding to hazard emergencies	Abbeville Police / Fire Departments	City of Abbeville / Abbeville VFD	All	Ongoing
Improvement of communication and warning devices for local emergency respondents	City of Abbeville / Henry County EMA	City of Abbeville / Grant Funding	All	Ongoing
Work with County Engineer to monitor NFIP compliance	City of Abbeville	City of Abbeville	Flooding	Ongoing
Purchase backup generator for critical facilities	City of Abbeville / Henry County EMA	Grant Funding	All	High
Acquire generators for Abbeville school sites	Henry County Schools	Grant Funding	All	High
Retrofit current and future shelters and critical facilities for emergencies	City of Abbeville / Henry County EMA	City of Abbeville / Grant Funding	All	High / Medium

Completed/Deleted Actions

Project	Status	Comments
Placement of three additional outdoor warning sirens	Completed	The City now has five outdoor warning sirens
Update and revise floodplain and flood zone maps through FEMA	Completed	Updated flood maps were completed in August 2008
Placement of individual safe shelters throughout community	Deleted	Community liability for structures

5.4 Town of Haleburg

Identified Objectives

- Improve information dissemination before and during hazard events
- Public awareness of hazard events
- Ensure operational ability during hazard events

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Continue responding to hazard emergencies	Haleburg VFD	Haleburg VFD	All	Ongoing
Provide for effective communication to residents through weather siren	Town of Haleburg / Henry County EMA	Grant Funding	All	High
Purchase backup generator for Town Hall	Town of Haleburg/ Henry County EMA	Grant Funding	All	High
Become a participating community within NFIP	Town of Haleburg / County EMA	Town of Haleburg	Flooding	High
Construction of a community shelter	Town of Haleburg / Henry County EMA	Grant Funding	High Winds	Medium

Completed/Deleted Actions

Project	Status	Comments
Construction of new fire station	Completed	The town's VFD has a modern fire station to enhance the ability to respond to emergencies
Update and revise floodplain and flood zone maps through FEMA	Completed	Updated flood maps were completed in August 2008
Placement of safe shelters throughout community	Deleted	Community liability for structures

5.5 City of Headland

Identified Objectives

- Increase protection of first responders and citizens during disasters
- Ensure critical facilities are structurally sound
- Public awareness of hazard events
- Ensure operational ability during hazard events
- Protect valuable resources during hazard events
- Reduce exposure to future hazard events

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Continue to follow Zoning Ordinance	City of Headland	City of Headland	All	Ongoing
Continue responding to hazard emergencies	Headland Police Dept / Headland Fire Dept	City of Headland / Headland Fire Dept	All	Ongoing
Development of Comprehensive Plan	City of Headland	City of Headland	All	Ongoing
Work with County Engineer to monitor NFIP compliance	City of Headland	City of Headland	Flooding	Ongoing
Procure backup generators for fire station and water/sewer facilities	City of Headland / Headland Fire Dept / Henry County EMA	Grant Funding	All	High
Construction of community shelter	City of Headland / Henry County EMA	Grant Funding / City of Headland	High Winds	High
Acquire generators for Headland school sites	Henry County Schools	Grant Funding	All	High

Completed/Deleted Actions

Project	Status	Comments
Placement of four outdoor warning sirens	Completed	The City now has four outdoor warning sirens
Update and revise floodplain and flood zone maps through FEMA	Completed	Updated flood maps were completed in August 2008
City has received a generator for one water well	Completed	One municipal water well is operational during power outages
Placement of safe shelters throughout community	Deleted	Community liability for structures

5.6 Town of Newville

Identified Objectives

- Improve information dissemination before and during hazard events
- Maintain communications for emergency responders during hazard events
- Maintain services to emergency responders and citizens during hazard events
- Public awareness of hazard events
- Optimize emergency response during hazard events

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Continue responding to hazard emergencies	Newville Police Dept / Newville VFD	Town of Newville / Newville VFD	All	Ongoing
Continue mutual aid / assistance agreements	Henry County EMA / Town of Newville	Town of Newville	All	Ongoing
Work with County Engineer to monitor NFIP compliance	Town of Newville	Town of Newville	Flooding	Ongoing
Research methods to maintain communications in emergency events	Newville Police Dept / Henry County EMA	Town of Newville / Grant Funding	All	High
Create effective system to supply water to citizens during a disaster	Town of Newville	Grant Funding / Town of Newville	All	High
Supply generators for critical facilities and shelters	Town of Newville / Henry County EMA	Town of Newville / Grant Funding	All	High
Construct new elevated water tank to replace existing tank	Town of Newville	Town of Newville / Grant Funding	All	High
Construct a full-time fueling location	Town of Newville	Town of Newville	All	Medium
Retrofit current and future shelters and critical facilities	Town of Newville / Newville VFD	Grant Funding	All	Medium
Provide for effective communication to residents through weather siren	Town of Newville / County EMA	Grant Funding	All	Medium

Completed/Deleted Actions

Project	Status	
Awarded a HMGP grant for generator for water well	Completed	The Town will have a water source during hazard emergencies
Update and revise floodplain and flood zone maps through FEMA	Completed	Updated flood maps were completed in August 2008
Placement of safe shelters throughout community	Deleted	Community liability for structures

Section 6 - Plan Maintenance Process

This section of the plan addresses 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 Continued Public Involvement

Section	Section Updates
6.x	<ul style="list-style-type: none">• Changes in numbering and organization
6.1	<ul style="list-style-type: none">• Incorporated former “Section VIII-A”• Added Henry County Superintendent to Planning Committee• Changed update meeting timeline
6.2	<ul style="list-style-type: none">• Incorporated former “Section VIII-B”• Added future incorporation into Headland Comprehensive Plan
6.3	<ul style="list-style-type: none">• Incorporated former “Section VIII-C”• Edited language to meet Section 6.1 update timelines

6.1 Hazard Mitigation Plan Monitoring, Evaluation, and Update Process

The planning cycle for the Henry County Hazard Mitigation Plan is five years. This planning cycle is consistent with FEMA requirements. The Henry County EMA Director will facilitate a Hazard Mitigation planning review meeting during periods after a local or regional disaster. The Henry County EMA Director will be responsible for contacting committee members and organizing the review meeting. The meeting will be advertised in advance by newspaper and public postings. The Hazard Mitigation Planning Committee, at a minimum, will remain the following:

- Abbeville Mayor or representative
- Haleburg Mayor or representative
- Headland Mayor or representative
- Newville Mayor or representative
- Henry County Emergency Management Director
- Henry County Engineer
- Henry County Superintendent or representative

The Planning Committee will use these meetings to evaluate the Hazard Mitigation Plan and how disasters affected the jurisdictions during that period. They will evaluate the appropriateness of their goals and make any changes to the Action Plan, depending on changes in the jurisdiction's actions. After the annual meeting, the jurisdictions will adopt the changes made to the Hazard Mitigation Plan.

The Henry County EMA Director will also attend a council/commission meeting for each local government in the County annually to address any questions or needs regarding the Hazard Mitigation Plan.

The Planning Committee, led by the Henry County EMA Director, will also be responsible for updating the Hazard Mitigation Plan before the five-year planning cycle expires. The Planning Committee will be responsible for developing a funding source, procurement of services, and preparation of the scope of work for future plan updates.

6.2 Hazard Mitigation Plan Incorporation

The Hazard Mitigation Committee, which has representation from each jurisdiction, will incorporate appropriate elements of the Hazard Mitigation Plan into developed plans and ordinances.

The Hazard Mitigation Plan has been inserted by the Henry County EMA and local jurisdictions as an Annex of the Henry County Emergency Operations Plan (EOP). The EMA Director has discussed elements of the Hazard Mitigation Plan during meetings with local stakeholders in the development and update of the Henry County EOP. The EMA Director has referred and will continue to refer to the Hazard Mitigation Plan during updates to the Continuity of Operations Plan (COOP).

Information from the Risk Assessment and the Mitigation sections of the Hazard Mitigation Plan affecting Headland is being distributed to the Headland Planning Commission for incorporation

into a comprehensive plan being developed for the city in 2009 that is being discussed in multiple meetings, including public presentations, and will be publically adopted by the City of Headland.

Each jurisdiction will utilize flood hazard information contained in the Risk Assessment to monitor building activities that occur in flood zones, according to the provisions in their floodplain management regulations.

6.3 Continued Public Involvement

Any countywide Hazard Mitigation planning meetings will be advertised by newspaper and public postings. The public will be able to comment on the contents of the Hazard Mitigation Plan at any time to their jurisdiction.

Copies of the Hazard Mitigation Plan will be available in each City/Town Hall, the County Courthouse, and the Henry County Emergency Management Agency office.