Monroe County, Alabama

Multi-Jurisdictional Natural Hazards Mitigation Plan

January 2012

Greg Norris, Probate Judge
Henry Childs, District 1
Joe McKissick, District 2
Billy Ghee, District 3
J.J Watson, District 4

J.T. Johnston, Director Monroe County Emergency Management Agency
Gwen Richardson, Monroe County Administrator

Monroe County, Alabama

Unicorporated Monroe County

City of Monroeville

Town of Beatrice

Town of Frisco City

Town of Excel

Town of Vrdenburgh

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List of Acronyms

AEMA ..... Alabama Emergency Management Agency

FEMA..... Federal Emergency Management Agency

HMGP ..... Hazard Mitigation Grant Program

NCDC ..... National Climate Data Center

NFIP..... National Flood Insurance Program

NWS ..... National Weather Service

PDM ..... Pre-Disaster Mitigation

SRL..... Severe Repetitive Loss

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1. Background and Purposes of the Plan

   a. About the Plan - On October 30, 2000, the United States Congress passed the Disaster Mitigation Action Act of 2000. This act requires a local jurisdiction to develop and adopt hazard mitigation plans in order to receive federal funding from the Hazard Mitigation Program (HMGP) or the Pre-Disaster Mitigation Program (PDM). Hazard Mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. Mitigation activities may be implemented prior to, during, or after an incident. However, it has been demonstrated that hazard mitigation is most effective when based on an inclusive, comprehensive, long-term plan that is developed before a disaster occurs.

      The Monroe County Multi-Jurisdictional Natural Hazards Mitigation Plan is an update to the previously approved plan which was adopted by FEMA in 2005. This first plan was funded through a PDM grant awarded to Monroe County in 2002. In June of 2011, Monroe County was awarded a HMGP grant (1866-002) to update the previously-approved plan so that Monroe County will meet the eligibility requirements for PDM and HMGP funding.

   b. Scope – The Monroe County Multi-Jurisdictional Natural Hazards Mitigation Plan includes numerous entities located within Monroe County Alabama. These entities include both incorporated and unincorporated areas along with rural water authorities and the Monroe County Board of Education. The plan update followed the guidance provided by the Federal Emergency Management Agency (FEMA) entitled Local Multi Hazard Mitigation Planning Guidance from July 1, 2008. This document will contain all of the required elements in order to be eligible for federal funding.

   c. Authority – Section 409 of the Robert T. Stafford Disaster and Relief Act (Public Law 93-288, as amended) and Title 44 CFR, as amended by Section 102 of the Disaster Mitigation Act of 2000 provide the framework for state and local governments to evaluate and mitigate all hazards as a condition for receiving Federal disaster assistance. A major requirement of the law is the development and adoption of a local hazard mitigation plan.

   d. Funding – On May 24, 2011, FEMA awarded an HMGP (1866-002) grant to the Alabama Emergency Management Agency (AEMA) for $43,230.00 with a federal share (75%) of $32,423.00. Donation of staff time from the local community was used as the required match for the grant.

e. Purposes - Hazard mitigation is any action taken to permanently reduce or eliminate long- term risks to people and their property from the effects of hazards. Natural hazards come in many forms: tornadoes, floods, hurricanes, severe storms, winter freezes, droughts, landslides, or dam failures resulting from natural disaster crises. Communities can take steps to prepare and implement mitigation techniques for almost any type of hazard that may threaten its citizens, businesses and institutions. Hazard mitigation planning helps to identify a range of structural approaches to lower the costs of future disasters by meeting the unique needs of the community. For example, structural mitigation projects for flooding could involve modifying a stream channel to increase the conveyance of floodwaters or retarding the flow rate by the construction of detention facilities. Mitigation strategies can also involve non-structural initiatives, such as educational programs to inform homeowners of their vulnerability to natural disasters in order to encourage them to purchase insurance or retrofit their homes. Non-structural programs can also include developing and enforcing regulations to prevent construction in hazard areas, or to ensure that development that does occur will be resistant to the hazards threatening the area.

Mitigation programs and projects serve to lessen a community's vulnerability to the hardships and costs of disasters. The implementation of mitigation programs is a key component to achieving a sustainable community, one in which the economic and social needs of people, businesses, and institutions coexist with natural environmental constraints and are protected from the disruptions and impacts of emergencies and disasters. Hazard mitigation planning must be closely coordinated with a community's overall planning and development efforts. The most effective way for a community to initiate this objective is through a comprehensive local mitigation planning program, as presented here. Comprehensive planning can provide Monroe County citizens a safe, healthy and prosperous place in which to live and work.

The purpose of the Monroe County Multi-Jurisdictional Hazard Mitigation Plan is to develop a unified approach among its local governments for dealing with identified hazards and hazard management problems. This plan serves as a guide for local governments in their ongoing efforts to reduce vulnerability to the impacts produced by natural hazards.

Further, the plan seeks to accomplish the following additional purposes:

1. Establish an ongoing hazard mitigation planning program
2. Identify and assess the hazards that pose a threat to life and property
3. Evaluate additional mitigation measures that should be undertaken
4. Outline procedures for monitoring the implementation of mitigation strategies

f. What has been updated in this section - This plan provides guidance for local mitigation activities over the next five-year planning cycle. It encourages activities that are most effective and appropriate for mitigating the effects of all natural

hazards. The first section of the plan gives a basic overview of the need and purpose of a Hazard Mitigation Plan. For the update, only a minimal amount changes were needed.

2. County Profile

a. *Geographic setting and history – Monroe County is located in rural Southwest* Alabama. According to the 2010 U.S. Census, the County's population was 23,268. The County contains approximately 1,026 square miles and is bordered on the north by Wilcox County, on the east by Butler and Conecuh Counties, on the south by Escambia and Baldwin Counties, and on the west by Clarke County. Monroe Count was created by the Mississippi Territory governor, David Holmes, on June 29, 1815. It comprised all the Creek Indian lands ceded by the Treaty of Fort Jackson. It was reduced in size by the creation of the Alabama counties of Montgomery, Conecuh and Wilcox. It was named for President James Monroe. The first county seat was established at Fort Clairbome on the Alabama River and subsequently, was moved to Monroeville in 1832. The county also contains, in decreasing order of population, the cities of Monroeville (2010 U.S. Census population 6,319), Frisco City (2010 U.S. Census population 1,309) and the towns of Excel (2010 U.S. Census population 723), Vrdenburgh (2010 U.S. Census population 327), and Beatrice (2010 U.S. Census population 301).

Map 1. Location Map of Monroe County, Alabama

b. Government - County government is in the form of a representative four-member commission presided over by the probate judge. All of the municipalities have a mayor/city council form of government.

c. Demographics - The total population of Monroe County, Alabama is 23,068 according to the 2010 Census. This amount decreased slightly from the 2000 Census. Chart 1 depicts the total population of the Monroe County in using data from 2000 and 2010 United States Census. Chart 1 also includes the population of unincorporated areas in Monroe County.

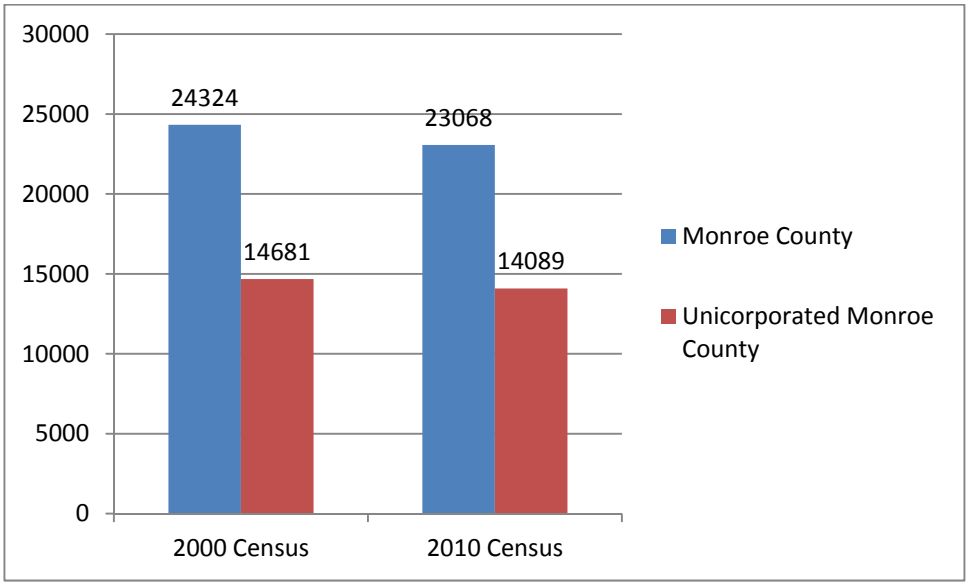


Chart 1. Population of Monroe County and Unincorporated Areas in 2000 and 2010. Source: U.S. Census Data www.census.gov

There are 5 municipalities located in Monroe County. Chart 2 depicts the 2000 and 2010 Census data for the population of each of the municipalities. There is a trend of decreasing population in the incorporated areas with exception of the Town of Excel which increased by 141 residents or 20% from 2000 to 2010.

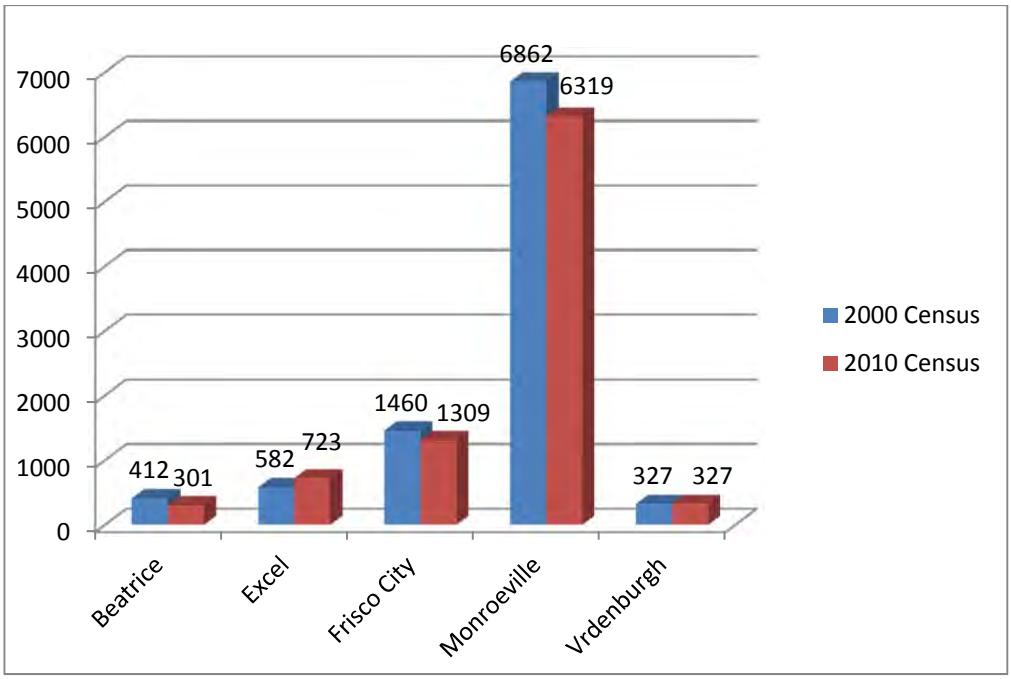


Chart 2. Population Monroe County Incorporated Areas in 2000 and 2010. Source: U.S. Census Data www.census.gov

Chart 3 depicts the racial characteristics of Monroe County. The population is made of 55% White population, 41% African American, and the other 4% is made of other races including Asian, American Indian, Alaska Native, Native Hawaiian, Pacific Islander or other.

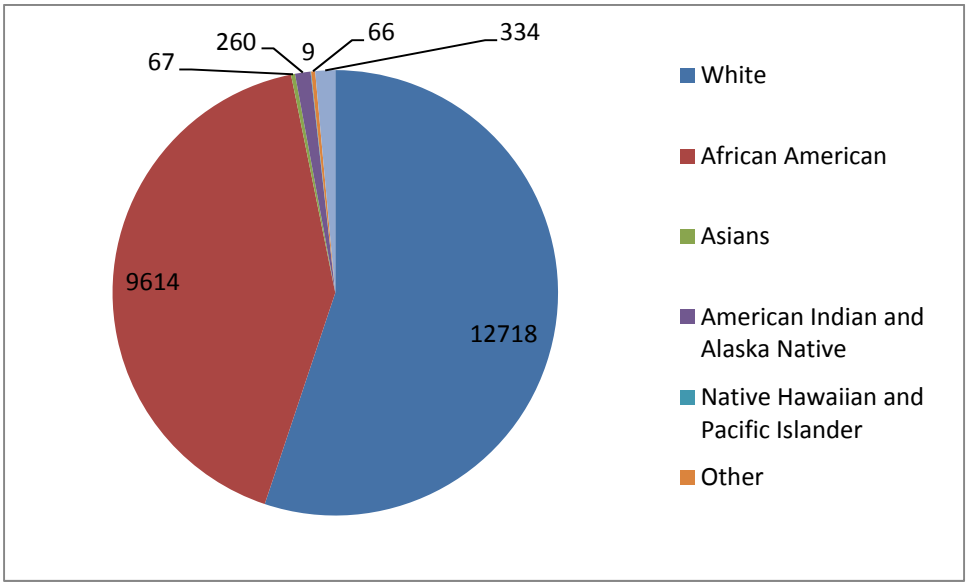
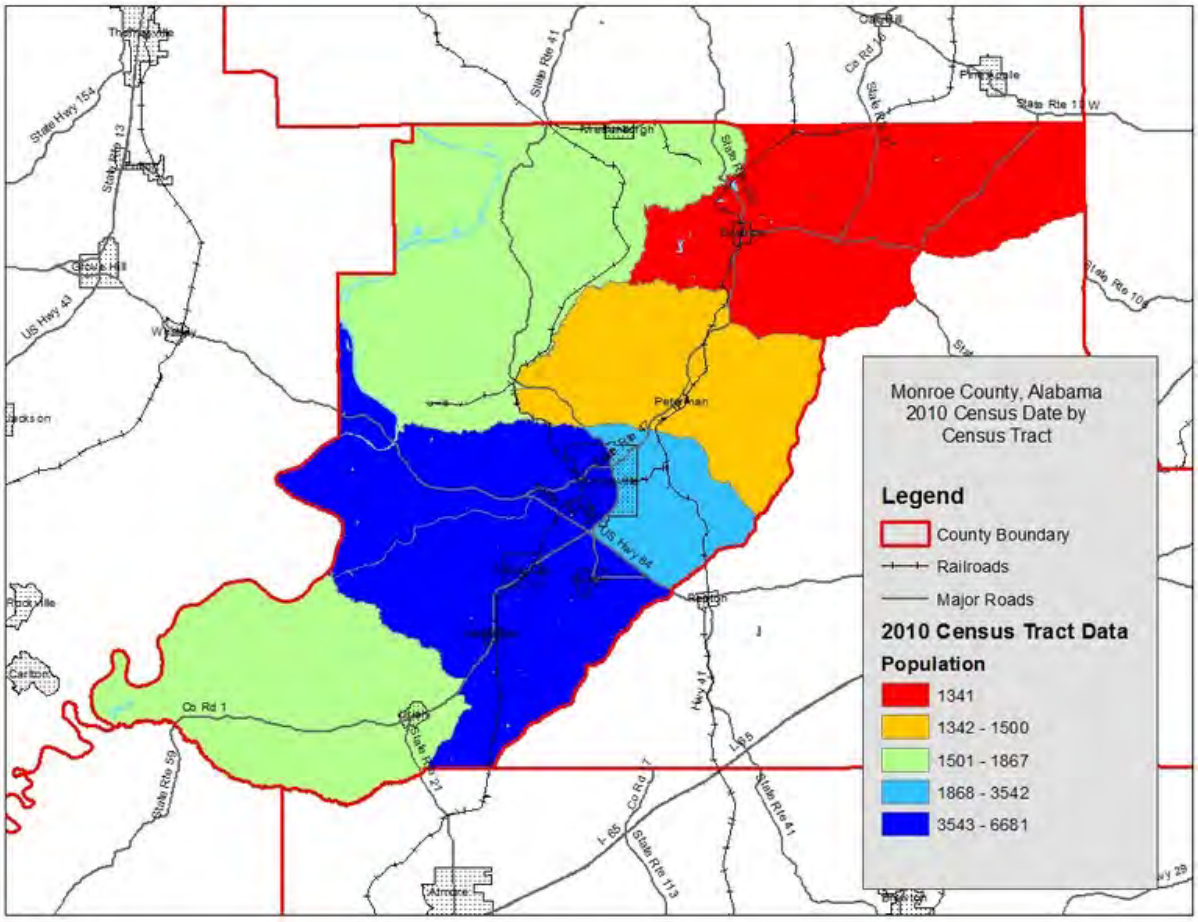


Chart 3. 2010 Monroe County Race Data. Source: U.S. Census Data www.census.gov

The population of the county is concentrated into six principal Census Tracts. Map 2 depicts the densest population of Monroe County in the area surrounding Monroeville. The area of Monroe County with the lowest density is located the northeastern section.



Map 2. 2010 Population by Census Tract in Monroe County, Alabama

d. Economy – According to the 2010 U.S. Census, 61% of Monroe County's population lives in unincorporated areas. This has remained relatively unchanged since the 2000 Census. The percentage of the population that has finished high school (74.7%) or better is lower than both the state average (82.1%). Monroe County also has below average median and per capita incomes. The median annual income in Monroe County is $28,877, lower than the state median income ($40,474). A significantly higher percentage of individuals and families live below the poverty line (24.8%) when compared to the state average (14.7%). Table 1 summarizes economic data of Monroe County using data from the U.S. Census.

Population	23,068
Male	11,109
Female	11,959
Median Age	40.1

Total Households	9,214
Total Housing Units	11,333
Population 3 years and over enrolled in school	5,705
Percent High school graduate or better	74.7%
Percent Bachelors' degree or higher	10.1%
Median Annual Household Income	$28,877
Per capita income	$17,399
Families below the poverty level	24.8%
Individual below the poverty level	27.6%

Table 1. Summary of economic data for Monroe County. Source: U.S. Census

The economy in Monroe County has been hard hit by the recession in the late 2000's. Graph 4 depicts the loss of jobs in Monroe County from 2005 to 2010. Specifically, Vanity Fair has reduced its workforce by over 50% and Medline Industries, located in Frisco City closed its doors in 2008.

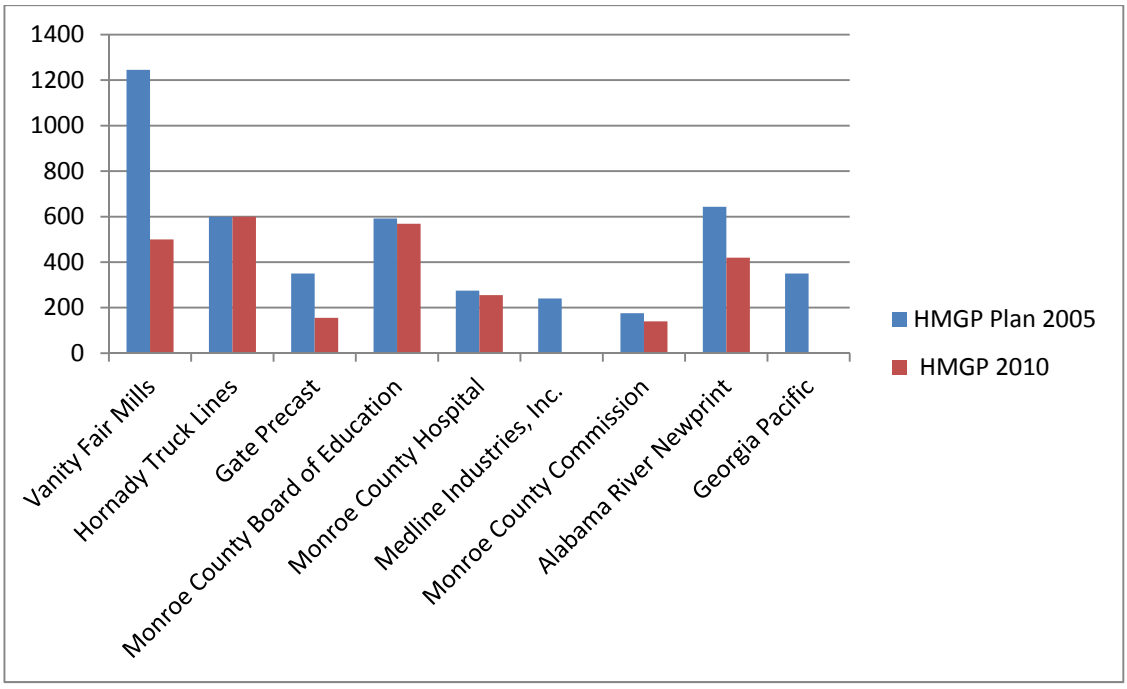


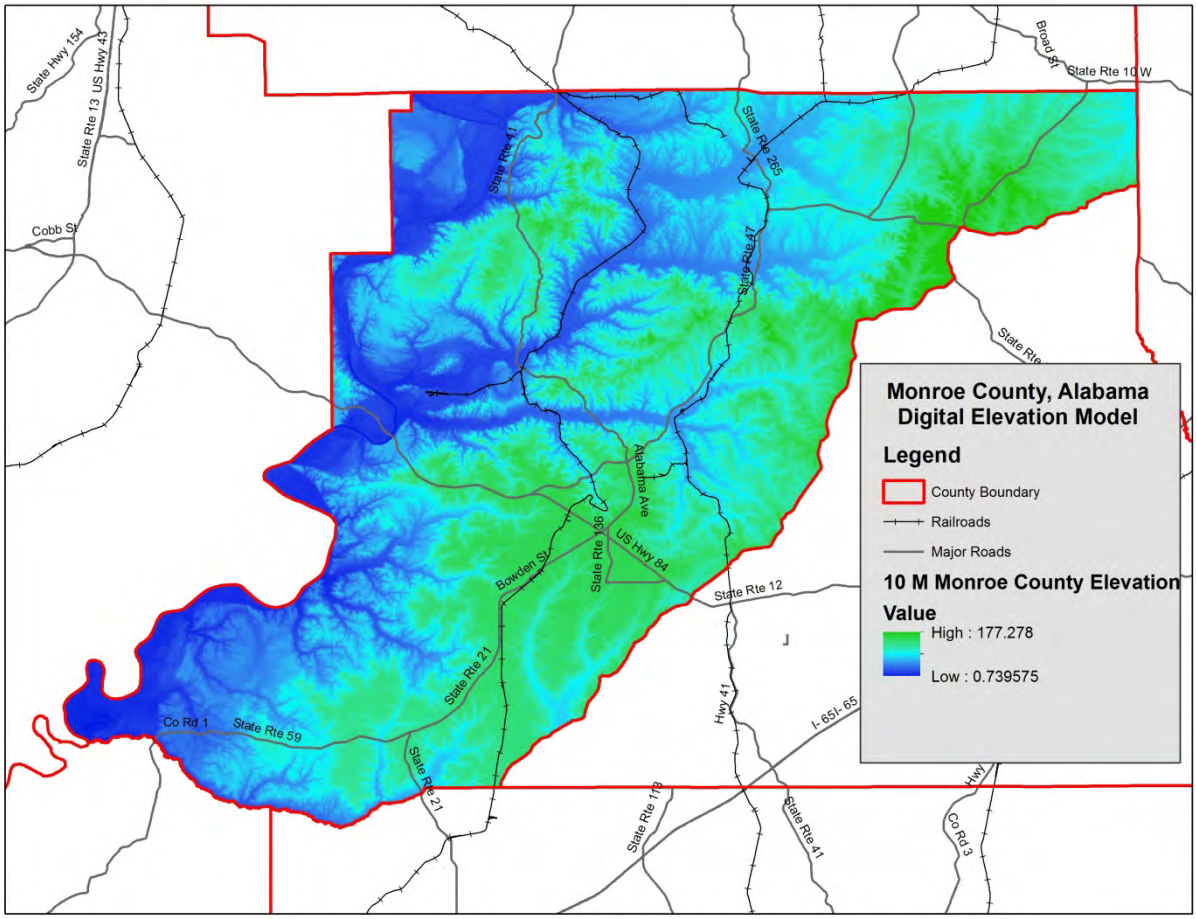
Chart 4. Largest Employers in Monroe County in 2005 and 2010. Source www.monroecountyal.com.

e. Climate - Monroe County has long, hot summers because moist tropical air from the Gulf of Mexico persistently covers the area. Winters are cool and fairly short. Cold waves are rare and generally moderate in 1 or 2 days. Precipitation is fairly heavy throughout the year, and prolonged droughts are rare. In winter the average temperature is 49 degrees F, and the average daily minimum temperature is 38 degrees. The lowest temperature on record, which occurred at Frisco City on January 19, 1977, is 4 degrees. In summer the average temperature is 80 degrees, and the average daily maximum temperature is 91 degrees. The highest recorded temperature, which occurred at Frisco City on August 14, 1954, is 107 degrees. The total annual precipitation is 59 inches. Of this, 31 inches, or 55 percent, usually falls in April through September. The growing season for most crops falls within this period. In 2 years out of 10, the rainfall in April through September is less than 24 inches. The heaviest 1-day rainfall during the period of record was 10.61 inches at Frisco City on September 8, 1974. Thunderstorms occur on about 61 days each year, and most occur in summer. Snowfall is rare. In 99 percent of the winters, there is no measurable snowfall. In 1 percent, the snowfall, usually of short duration, is less than 1 inch. The heaviest 1-day snowfall on record was 3 inches. The average relative humidity in midafternoon is about 55 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The sun shines 65 percent of the time possible in summer and 55 percent in winter. The prevailing wind is from the south. Average windspeed is highest, 9 miles per hour, in spring Severe local storms, including tornadoes, strike occasionally in or near the area. They are short in duration and cause variable and spotty damage. Every few years, in summer or autumn, a tropical depression or remnant of a hurricane that has moved inland causes extremely heavy rains for 1 to 3 days.

f. Physical features - Monroe County is located in the Southern Coastal Plain Land Resource Area. Topography is primarily hilly to gently rolling. The county is covered in more than 40 acres of water. Elevations in the county range from 20 feet in the southwest to 528 feet in the northeast near Midway. Geologic formations in Monroe County are of sedimentary origin and range in age from Eocene to Holocene. They consist mainly of gravel, sand, clay, sandstone, siltstone, clay stone, and limestone. Geologic map units in the county include, from oldest to youngest, the Nanafalia, Tuscahoma, Hatchetigbee, and Tallahatta Formations; the Lisbon Formation and Gosport Sand undifferentiated, and the Jackson Group in the Eocene Series; the Oligocene Series undifferentiated; the Miocene Series undifferentiated; the Citronelle Formation in the Pliocene Series; and alluvium and terrace deposits in the Pleistocene and Holocene Series. The Nanafalia Formation is in northeastern Monroe county. Arundel, Halso, and

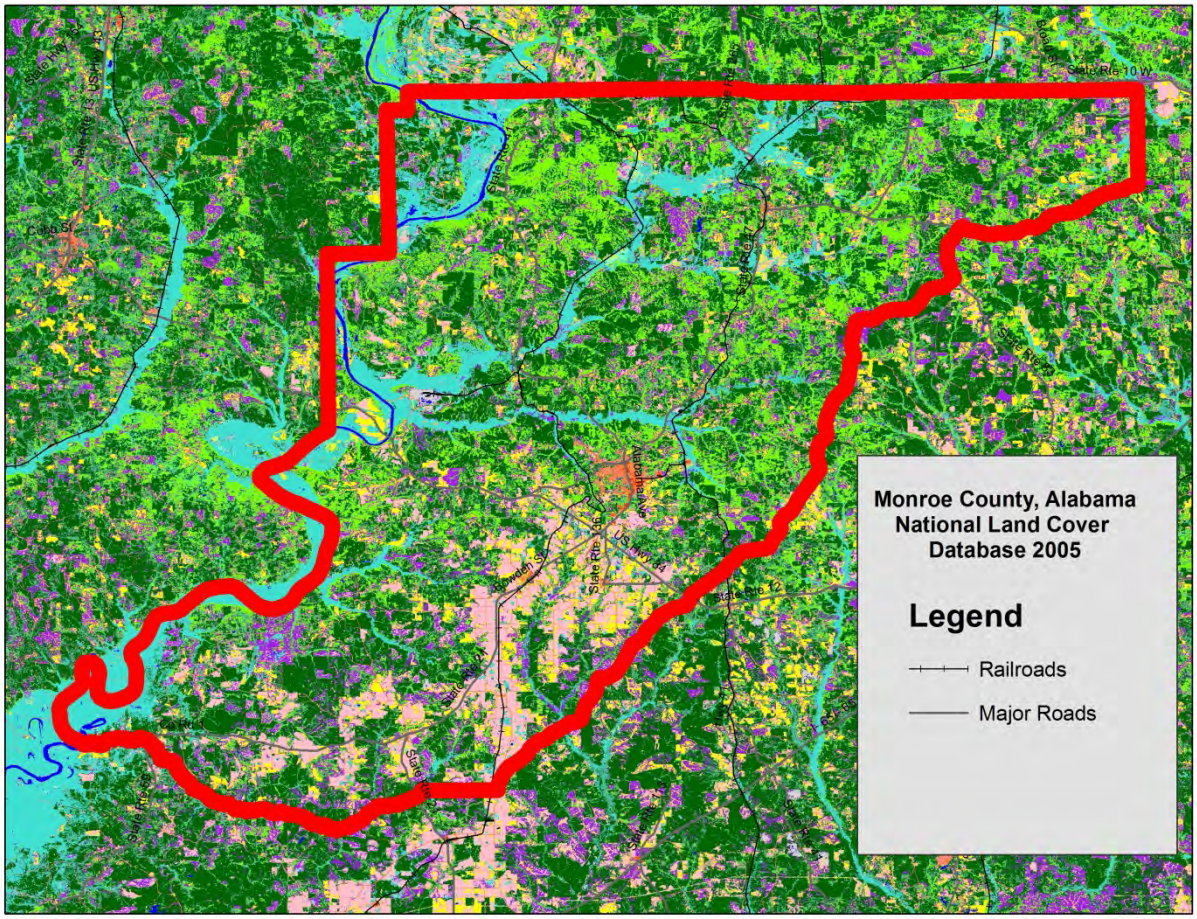
Luverne soils are the dominant soils on this formation. The formation is 200 to 225 feet thick at the surface, but only the upper 20 to 40 feet are exposed in Monroe County. The Tuscahoma Sand overlies the Nanafalia Formation and crops out in northern parts of the county. The formation is 250 to 275 feet thick in the outcrops. Beatrice and Luverne soils are the dominant soils. The Hatchetigbee Formation overlies the Tuscahoma Sand and crops out in a belt across the northern part of the county. It is very similar lithologically to the Tuscahoma Sand. Beatrice and Luverne soils are the dominant soils. The formation generally ranges from 135 feet thick in the eastern part of the county to 275 feet thick in the western part. The Tallahatta Formation overlies the Hatchetigbee Formation and forms a north- and east-facing escarpment across the northern part of the county. Arundel soils occur on this escarpment. This formation is less than 100 feet thick. It has a claystone or buhrstone base. The Gosport Sand and Lisbon Formation overlies the Tallahatta Formation and crops out in the central part of the county. Saffell, Lucy, and Greenville soils are the dominant soils. The Jackson Group crops out in the central part of the county. It ranges from 35 feet thick in updip areas to 125 feet thick in the western part of the county. Saffell, Lucy, and Greenville soils are the dominant soils. The Oligocene Series overlies the Jackson Group and crops out in the central and southwestern parts of Monroe County. Saffell, Bama, and Lucy soils are the dominant soils, but where the Mariann Limestone part of this series outcrops, Prim soils are dominant. The Miocene Series overlies the Oligocene Series and is exposed in the southern part of the county. Barna, Saffell, Malbis, and Lucy soils are the dominant soils. The Citronelle Formation overlies the Miocene Series in the southern part of the County. It is 5 to 50 feet thick. Lucedale, Malbis, and Escambia soils are the dominant soils. High terrace deposits of the Pleistocene Series cap upland areas along the Alabama River. The deposits are 5 to 50 feet thick. Malbis and Barna soils are the dominant soils. Alluvium of the Holocene Series are on flood plains. The dominant soils are Urbo, Chrysler, and Congaree soils along the Alabama River; luka and Mantachie soils along Limestone, Big Flat, Robinson, and Tallahatchee Creeks; and Bibb soils along Little River, Big Escambia and Gatley creeks, and other streams and creeks in the southern part of Monroe County.

Most of Monroe County's land area drains westward into the Alabama River. Big Escambia Creek drains the southeastern part of the county. Map 3 depicts a digital elevation model of Monroe County. The blue area depicts the lower elevations and the green depicts higher elevations.



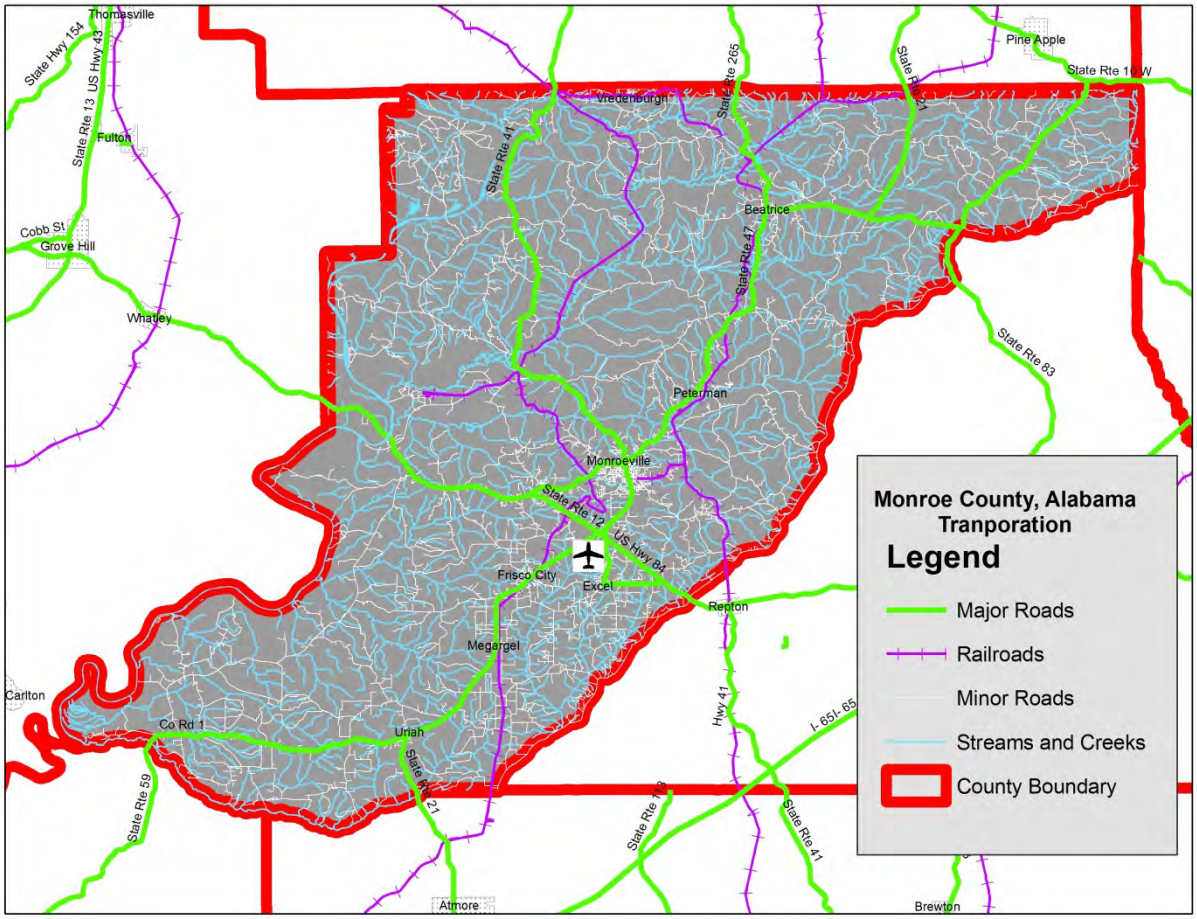
Map 3. Monroe County Digital Elevation Model

The land use of Monroe County is mostly agricultural or industrial forestry. Most of the intensive farming activities take place south of U.S. 84. Timber plantations are common throughout the County. There is a great deal of undeveloped bottomland hardwood swamps associated with the Alabama River and its major tributaries.



Map 4. National Land Cover Database for Monroe County. 2005.

g. Transportation - As depicted on Map 5, Monroe County is served by U.S. Highway 84 and three State Highways: 41, 21, 47 and 59. The Alabama and Gulf Coast Railroad runs through the north and western part of the county. There is only one commercial airport, located near Frisco City, providing service to small private and commercial aircraft.



Map 5. Major Transportation in Monroe County, Alabama. Source: U.S. Tiger Data 2010.

h. Utilities - Electric power is provided by the Alabama Power Company and Southern Pine Electric Cooperative. Natural gas is provided by the South Alabama Gas. Water service is provided by Monroeville Water System, Town of Beatrice, Southwest Alabama Water Authority, Uriah Water, and Wilcox County Water Authority. There are centralized sanitary sewer service offered in Monroeville and Frisco City. The Town of Beatrice is in the process of developing a sanity sewer collection and treatment system. Frontier Communications provides electronic communications. The Monroe Journal was founded in 1866 and has circulated ever since. It is published on Thursday of each week and is the major media outlet in Monroe County.

i. What has been updated in this section – Updated data was used to update the County profile. These data sets include 2010 Census, current land use maps, and recent economic data provide by Monroe County Chancer of Commerce.

3. Planning Process

CFR Title 44 201.6 (c) (1) requires the Local Hazard Mitigation Plan must include: "Documentation of the planning process used to develop the plan including how it was prepared, who was involved in the process, and how the public was involved". In order to facilitate this process, the Monroe County Commission hired a consultant to facilitate the plan update process. From August 2011 through January 2012, the Monroe County Hazard Mitigation Committee held three meetings. Agendas and sign in sheets from those meets are on file in the Monroe County EMA office and are included in the Appendix. Committee members unable to attend a meeting received agendas and Committee assignments via fax, email, telephone or personal meetings with the planning team.

a. Hazard Mitigation Planning Committee – In June of 2010, under the leadership of the Monroe County Emergency Management Director (Tommy Booker), the Hazard Mitigation Planning Committee was re-assembled. Since the original plan was developed in 2005, many of the elected officials have such left office or changed jobs. As such, it was determined to sponsor a Kick-Off meeting which would invite elected officials, EMA officials, and volunteer fire fighters, police officers, elected officials, school representatives, industry representative, interested citizens, and others. This meeting was held on August 24, 2011 and invited representatives from numerous public and private agencies throughout Monroe County. Table 1 lists the agencies invited to the Monroe County Hazard Mitigation Kickoff Meeting.

	Name of Organization Invited to Hazard Mitigation Kickoff Meeting on August 24, 2011
1	Alabama Cooperative Extension Service
2	Alabama Department of Environmental Management
3	Alabama Emergency Management Agency
4	Alabama Forestry Commission
5	Alabama National Guard
6	Alabama Power Corporation
7	Alabama Southern Community College
8	Alabama-Tombigbee Regional Planning Commission
9	American Red Cross
10	Baldwin County Commission
11	Town of Beatrice
12	Butler County Commission
13	Clarke County Commission
14	Conecuh County Commission
15	Town of Excel

16	Federal Emergency Management Agency
17	Town of Frisco City
18	Georgia Pacific Cellulose
19	City of Monroeville
20	Monroeville/Monroe County Economic Development Authority
21	Monroe County Board of Education
22	Monroe County Commission
23	Monroe County E-911
24	Monroe County Emergency Management Agency
25	Monroe County Health Department
26	Monroe County Heritage Museum
27	Monroe County Hospital
28	Monroe County Sherriff's Department
29	Monroe County Volunteer Fire Departments
30	Monroe Journal
31	Southern Pine Electrical Cooperative
32	South Alabama Gas
33	Southwest Alabama Water Authority
34	Uriah Water Department
35	US Army Corps of Engineers, Mobile District
36	US Fish and Wildlife Service
37	Town of Vrdenburgh
38	WFMC Radio Station

Table 2. List of Organizations Invited to Participate in Hazard Mitigation Planning Kickoff Meeting

There were over 50 attendees to at the Kickoff meeting representing numerous of the entities invited above. The Hazard Mitigation Planning Committee (HMPC) was formed. The committee's adopted mission statement is:

'To oversee and establish comprehensive hazard mitigation planning process that:

1. Engages public participation and support;
2. Facilitates Federal, state, regional and local coordinator
3. Constantly monitors and evaluates the potential risks of hazards to life and property;
4. Actively mobilizes all available community resources and measures to mitigate the threats of hazards; and
5. Results in programmed actions with specific results.'

At this meeting, the topics included an introduction to mitigation planning, a review of the 2005 plan, and preview of the plan update process. Each member was given a summary of the 2005 plan and asked to write down any changes to their jurisdiction's capabilities since 2005. Also, an inventory of critical infrastructure was conducted at this meeting along with identifying participants and agencies that weren't represented at the meeting. These specific participants were contacted and were asked to participate in the HMPC at the next meeting. Representatives from each of the participating jurisdictions were invited and/or represented at each of the meetings. The attendees were handed out a stakeholder survey that contained the following three questions:

1. Who should be involved in this process and is not at the meet kickoff meeting? The Update to the Monroe County Hazard Mitigation Plan should include all aspects- i.e. public agencies, private businesses, and non-profit organizations. Please include contact information if available.

2. What in your opinion are the vulnerable areas of Monroe County to a hazard? In other words, what should be protected?

    a. Building Stock
    b. Critical Facilities
    c. Transportation Systems
    d. Lifeline Utility Systems
    e. Communication Systems
    f. High Potential Loss Facility
    g. Hazardous Material Facility
    h. Economic Elements
    i. Historical, Environmental, and Cultural Resource Areas

3. In light of the tornadoes in April, what types of actions are necessary to improve Monroe County's response to hazard events?
    a. Prevention
    b. Property Protection
    c. Public Education and Awareness
    d. Natural Resource Protection
    e. Structural Projects – Safe Rooms, Drainage Projects, Culverts, etc...

These responses were tabulated on a spreadsheet and were used to develop the agenda for the second planning meeting. A second meeting was held on October

19, 2011 – a risk assessment was performed. At this meeting, the committee addressed the findings of the previous exercises and the planning team described in detail the different hazards and how their risks vary throughout Monroe County and its communities. Man-made hazards were introduced during this meeting and the committee was given a man-made hazard risk assessment exercise to fill out and return to EMA. The Risk Assessment questions are included below.

1. How concerned are you the following disasters will affect Monroe County? (please circle the corresponding number for each hazard)

Hurricane/Tropical Storm	1	2	3	4	5
Flood	1	2	3	4	5
Severe Weather	1	2	3	4	5
Tornadoes	1	2	3	4	5
Wildfires	1	2	3	4	5
Drought/Heat Waves	1	2	3	4	5
Winter Storm/Freeze	1	2	3	4	5
Levee Dam Failures	1	2	3	4	5
Landslides	1	2	3	4	5
Manmade Hazards	1	2	3	4	5
Other: _____	1	2	3	4	5

2. In the past 10 years, have you or your family experienced a natural disasters such as a hurricane/tropical storm, flood, tornadoes, wildfires, drought/heat wave, winter storm freezes, levee dam failure, landslide, or other?
   □ Yes □ No (If no skip to question 4.)

3. If yes, which disasters have your or your family experienced?

   □ Hurricane/Tropical Storm
   □ Severe Weather
   □ Wildfires
   □ Winter Storm/Freezes
   □ Landslides
   □ Other: _____
   □Flood
   □Tornadoes
   □ Drought/Heat Waves
   □ Levee/ Dam Failures
   □ Manmade Hazards

4. Please prioritize the likelihood of the following disasters impacting you in the next 5 years (1 – most likely – 10 – almost never)

   a. Hurricane/Tropical Storm _____

b. Flood _____
c. Severe Weather _____
d. Tornadoes _____
e. Wildfires _____
f. Drought/Heat Waves _____
g. Winter Storm/Freezes _____
h. Levee Dam Failures _____
i. Landslides _____
j. Manmade Hazards _____
k. Other: _____ _____

The results from this exercise were tallied and used in the risk assessment.

The final public meeting was held on December 6, 2011 and presented the results from the risk assessment along with mitigation strategies for each participating jurisdiction. Sign-in sheets from the three HMPC meetings are included in the Appendix B. All representatives who attended the meetings were participants on each committee. The consultant developed the meeting agendas following guidance provided by the most recent Hazard Mitigation Assistance Unified Guidance dated June 1, 2010. During the plan development, the Monroe County EMA Director (Tommy Booker) resigned. The County Commission hired J.T. Johnston as his replacement in November of 2011. The consultant developed the draft plan and it was reviewed by both EMA Directors along with other planning consultants. All meeting attendees were involved in the plan development process. Please find a detailed description below of the jurisdictions that are new, continuing, or no longer participating in the Hazard Mitigation planning process.

New Participating Jurisdictions

1. Monroe County Board of Education
2. Southwest Alabama Water Authority

Continuing Jurisdictions

1. Monroe County Commission
2. City of Monroeville
3. Town of Beatrice
4. Town of Excel
5. Town of Frisco City
6. Town of Vrdenburgh

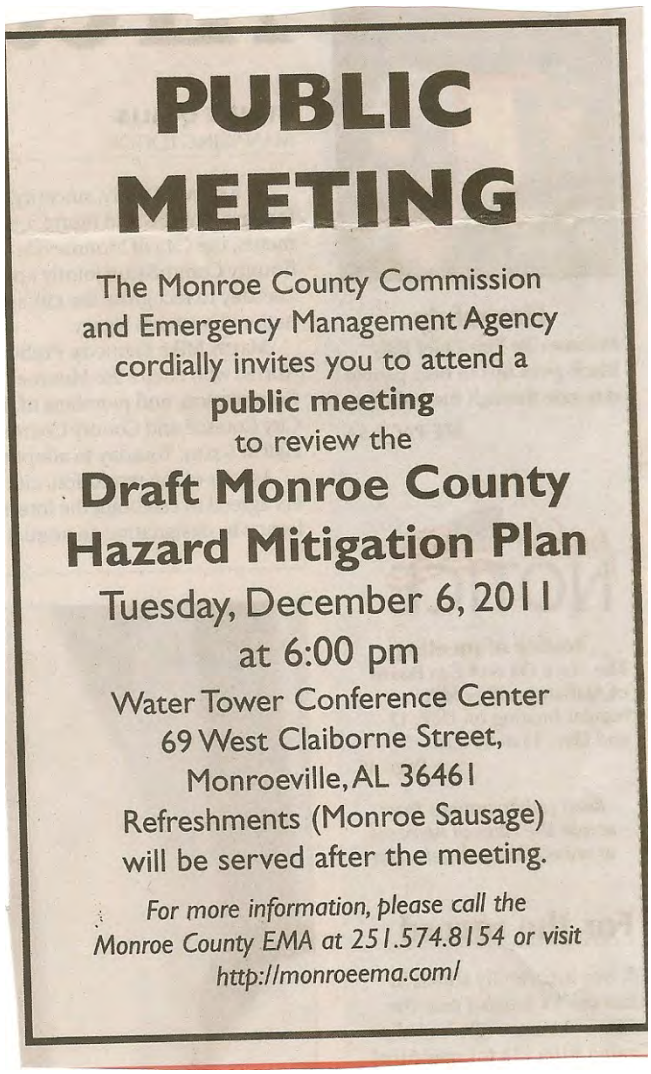
Jurisdictions that are no longer participating

1. None

Entities Notified of the Update, but Chose Not to Participate

1. Alabama Cooperative Extension Service
2. Alabama Department of Environmental Management
3. Alabama National Guard
4. Alabama Department of Conservation and Natural Resources – Wildlife and Freshwater Fisheries
5. Wilcox County
6. Baldwin County
7. Clarke County
8. Conecuh County
9. Gulf States Paper Corporation
10. Economic Development Administration
11. Natural Resource Conservation Service
12. US Army Corps of Engineers, Mobile District
13. US Fish and Wildlife Service
14. USDA Farm Service Center
15. USGS, Office of Water Resources

b. Public Involvement - The public was involved in every step of Monroe County's Hazard Mitigation Planning process. The HMPC solicited public input into the mitigation plan through public meetings, the local news media, and an internet web site. For each meeting, notices were posted in courthouse and City Halls throughout Monroe County. An ad was published in the Monroe Journal advertising the Public meeting held on December 6, 2011 (see figure below).



PUBLIC MEETING

The Monroe County Commission and Emergency Management Agency cordially invites you to attend a **public meeting** to review the

Draft Monroe County Hazard Mitigation Plan

Tuesday, December 6, 2011
at 6:00 pm

Water Tower Conference Center
69 West Claiborne Street,
Monroeville, AL 36461

Refreshments (Monroe Sausage) will be served after the meeting.

For more information, please call the Monroe County EMA at 251.574.8154 or visit http://monroeema.com/

Figure 1. Advertisement published in Monroe Journal on December 1, 2011.

Last, prior to adopting the plan, each jurisdiction will hold a public hearing at each of their Commission and Council meeting. These meetings will be held after Monroe County received its approval letter from FEMA.

c. Interagency and intergovernmental coordination – As stated in the part a above, numerous federal, state, regional and local agencies were invited to the kickoff meeting. Participation was encouraged through mailings, e-mail and follow-up

phone calls. In sum, there were over 25 agencies represented through the planning process either directly or indirectly.

d. Participating jurisdictions - All jurisdictions within Monroe County have participated in the planning process by direct representation on the planning committee and have committed to adopting the final plan by formal resolution. These jurisdictions include the municipalities of Monroeville, Beatrice, Excel, Frisco City, and Vredenburgh, and the Monroe County Commission and the Monroe County Board of Education. Also, the Southwest Alabama Water Authority participated in the development of the plan.

e. Integration with existing plans - This document will be incorporated into the Monroe County Emergency Operations Plan administered through the Emergency Management Agency office. Numerous other plans were identified throughout the planning process however, no plans have regulatory jurisdiction over any area countywide throughout Monroe County. For example, there are no building codes enforced in Monroe County nor any comprehensive or zoning plans. However, there are many plans that indirectly coordinate with the Monroe County Hazard Mitigation Plan. These plans were checked to make sure any of the proposed policies in the Monroe County Hazard Mitigation Plan does not conflict with these existing plans. These plans include:

- Monroe County Emergency Operations Plan
- U.S. 2010 Census
- Alabama State Data Center Population Projections 2000-2025
- NOAA and NWS records: past occurrence data
- Flood Insurance Rate Maps
- Forest Statistics for Alabama
- State of Alabama State Hazard Mitigation Plan
- Geological Hazards Information for the Geological Survey of Alabama
- Monroe County Soils Survey

f. What has been updated in this section - This section contains a variety of organizational and basic information that deals with the update process. This information had to be revised in order to document the update process. The Monroe County Commission reviewed this section and made all revisions. The revised areas include an Outlined Natural Hazards Steering Committee's involvement in update process, Outlined public involvement process in plan update, Updated Interagency and Intergovernmental Coordination Section, Updated participated jurisdictions, and updated reports and information sources that were consulted.

4. Risk Assessment

a. Risk Assessment Process - This risk assessment identifies all natural hazards affecting Monroe County. It provides information on the history and extent of hazards, evaluates the possible effects, identifies vulnerable populations and assets (buildings, critical facilities, and essential infrastructure), and estimates potential losses that might occur. The risk assessment process identifies the most critical problems and issues that require mitigation actions.

b. Identification of Risks - In the initial phase of the planning process, the HMPC identified potential natural hazards that could impact Monroe County. The HMPC decided to use the same hazards included in the 2005 approved Hazard Mitigation Plan. Each of these risks were evaluated by the HMPC and ranked based on previous experience with the hazard and probability or risk of impact by the event. This assessment resulted in the hurricanes/tropical storms and tornadoes to be the largest perceived likelihood of threat in the next 5 years. Table 3 below includes a list of each of the hazards assessed, and the percentage of HMPC members experience with the hazard and the perceived risk of the hazard in the future.

	Type of Hazard Impacting Monroe County	**HMPC Experience**	**HMPC perceived risk**
1	Hurricanes/Tropical Storms	85%	85%
2	Flood	80%	80%
3	Severe Storms	50%	71%
4	Tornadoes	25%	60%
5	Wildfire	10%	50%
6	Drought Heat Waves	10%	48%
7	Winter storms/Freezes	10%	39%
8	Levee/Dam Failures	0%	5%
9	Landslides	0%	0%
10	Earthquakes	0%	0%
11	Manmade Hazards (e.g. Oil Spills)	10%	80%

Table 3. Assessment of Perceived Risk of from Hazards

c. Federally-declared disasters - Monroe County has been included in a total of 11 federal disaster declarations from 1973 to date. Table 4 summarized the federal disaster declarations that have taken place in Monroe County since the 1970's.

	Disaster Number	Type	Date of Declaration
1	464	Flood	4/23/75
2	3045	Drought	7/20/1977
3	3064	Tornado	4/24/1978
4	598	Hurricane Frederik	9/13/1979
5	861	Severe Storm(s)	3/23/1990
6	3096	Snow	3/15/1993
7		Hurricane Georges	9/28/1998
8	1466	Severe Storms, Tornadoes and Flooding	5/12/2003
9	1549	Hurricane Ivan	9/15/2004
10	1593	Hurricane Dennis	7/10/2005
11	1971	Tornadoes	4/29/2011

Table 4. Summary of Federal Disasters in Monroe County, Alabama

d. Hurricane/Tropical Storm

Hazard Description - A "tropical cyclone" is a generic term for a cyclonic, low-pressure system over tropical or sub-tropical waters. Tropical cyclones with maximum sustained winds of less than 39 mph are called tropical depressions. A tropical storm is a cyclone with maximum sustained winds greater than 39 mph but less than 74 mph, and a tropical storm with winds that have reached a constant speed of 74 miles per hour or more is a hurricane. Coastal Alabama borders a part of the northern Gulf of Mexico that has a high incidence of hurricanes causing wind and water damage in Monroe County.

Though the center of Monroe County is located approximately 80 miles from the Gulf of Mexico, hurricanes and tropical storms sometimes bring high winds and heavy rains to the area as they move north. Table 5 lists the major hurricanes/tropical storms that have impacted Monroe County and Southwest Alabama over the 20 years. Damage estimates are for the entire region. In October of 1995, Hurricane Opal rushed across the panhandle of Florida and into Alabama, resulting in a presidential disaster declaration for 38 counties. Opal made landfall near Hurlburt Field, just east of Fort Walton Beach, Florida, on Wednesday, October 4, 1995, and eye passed just west of Montgomery, Alabama resulting in gusts of 90 mph wind. Heavy rains accompanying Opal caused inland flooding in Monroe County. The storm dumped of 8.54 inches in Monroeville.

Hurricane Ivan made landfall on September 16, 2004 in Gulf Shores, on the coast of Baldwin County, Alabama as a strong Category 3 hurricane with 130 mph winds and a storm surge estimated to be between 10 and 13 feet high. Ivan also caused flooding in inland Alabama Counties, including Monroe County. There was

excessive damage from high winds throughout Monroe County. Some of the rural areas were without power for over 3 weeks.

Hurricane Dennis made landfall on July 10, 2005 at the Santa Rosa Sound in Florida, approximately 25 miles from the Florida-Alabama state line, at this time, Alabama had already received significant rainfall from Tropical Storm Arlene and Hurricane Cindy. Because coastal Alabama was on the western side of the eye of Dennis, it was spared the worst of the storm surge; however, as much as 10 inches of rain fell in some areas causing flash flooding in inland Alabama counties, including Monroe County.

Hurricane Katrina made landfall along the Louisiana-Mississippi border on August 29, 2005, approximately 80 miles east of the Mississippi-Alabama border. Because Alabama was on the eastern side of the system, it experienced a significant storm surge (higher than in Ivan just the year before). Storm surge throughout coastal Mobile and Baldwin Counties ranged from 9-14 feet. AS Katrina moved inland, it dropped huge amounts of rain throughout causing significant flash flooding in Alabama counties, including Monroe County.

Location	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Southwest Alabama	08/03/1995	0900	Hurricane Erin	N/A	0	0	25.0M	1.0M
2 Southwest And South A	10/03/1995	1200	Hurricane Opal	N/A	0	0	48.0M	4.0M
3 ALZ051>053 - 055>064	09/25/1998	09:00 AM	Hurricane Georges	N/A	1	0	174.2M	5.0M
4 ALZ054>058 - 060	08/06/2001	04:00 AM	Tropical Storm Isadore	N/A	0	0	200K	0
5 ALZ051>064	09/13/2004	09:00 PM	Hurricane/typhoon Ivan	N/A	0	0	2.5B	25.0M
6 ALZ051>056 - 059 - 061>064	06/10/2005	03:00 AM	Hurricane Cindy	N/A	0	0	1.5M	0
7 ALZ051 - 053>056 - 059 - 061>064	07/09/2005	03:00 AM	Hurricane/typhoon Dennis	N/A	0	0	120.0M	100K
8 ALZ055	07/10/2005	04:45 PM	Hurricane/typhoon Dennis	N/A	0	0	0	0

				TOTALS:	1	0	2.869 B	35.1 00M

Table 5: Major hurricanes/tropical storms that have impacted Monroe County and Southwest Alabama over the 20 years. Souce: NCDB database.

Community Impacts - Risks associated with coastal storms include storm tide, inland flooding, water force, wind velocity and coastal erosion. A tropical storm can also produce numerous thunderstorms and tornadoes. Monroe County is susceptible to the effects of coastal storms. Since Monroe County is inland, the primary risk is the impact of high winds, the formation of tornadoes and flooding. Ten percent of deaths in the United States associated with hurricanes are due to the tornadoes.

Location and Extent - All of Monroe County is vulnerable to impacts from Hurricanes and Tropical Storms.

Probability of Future Occurrences - Monroe County is highly susceptible to hurricanes and tropical storms. Based on historical data, Monroe County can expect a hurricane once every two years, or 50% of the time. Another analysis was conducted by the Atlantic Oceanographic and Meteorological Laboratory. The organization analyzed hurricane activity from 1944-1999. This study resulted in a map showing probabilities of a strike that will affect the during the hurricane season. Figure 2 depicts the results of this analysis.

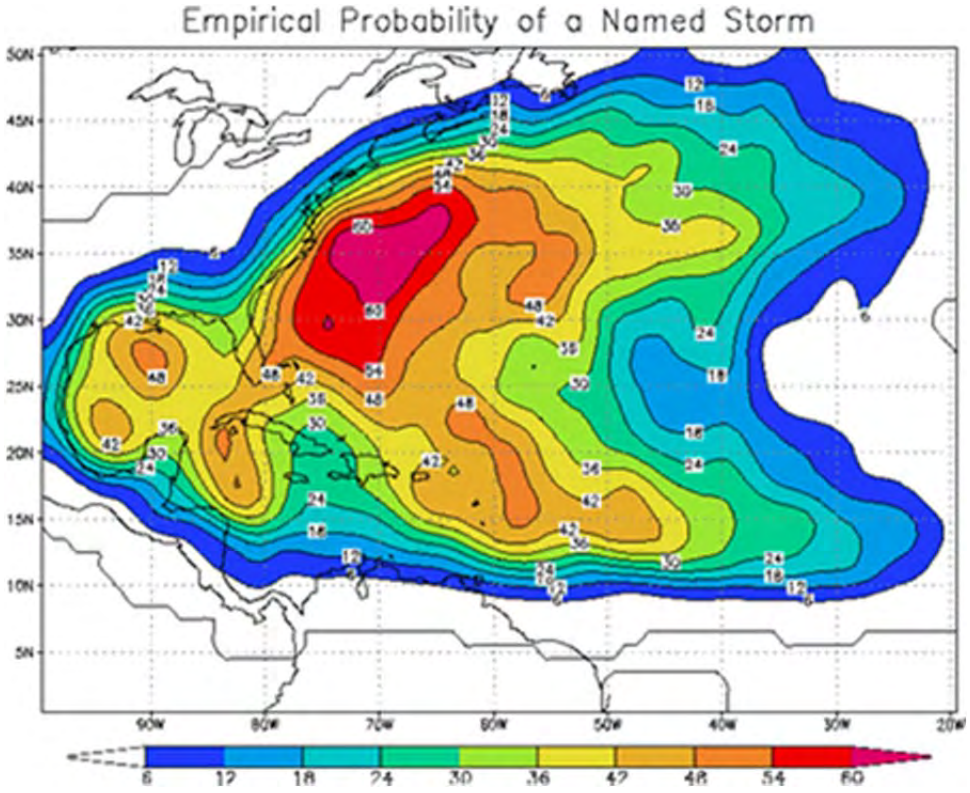


Figure 2. Empirical Probability of a Named Storm – note Monroe County is noted as having a 36% chance of being hit by a Named Storm.
http://www.aoml.noaa.gov/hrd/tcfaq/G12.html

e. Flood

Hazard description - Flooding is the accumulation of water within a water body (e.g., stream, river, lake, or reservoir) and the overflow of excess water onto adjacent floodplains. Floodplains are usually lowlands adjacent to water bodies that are subject to recurring floods. Monroe County is a slight risk to moderate risk of flooding. Flooding in large rivers usually results from large-scale weather systems that generate prolonged rainfall over wide areas. Small rivers and streams are susceptible to flooding from more localized weather systems that cause intense rainfall over small areas.

"Flash flood" is a term widely used by flood experts and the general population. However, there is no single definition and method to distinguish flash flooding from riverine and other floods. For the purpose of this plan, we will define flash flooding as flooding that occurs due to localized drainage and is outside the boundaries of the FIRM floodplain.

Local drainage floods may occur outside of recognized drainage channels or delineated floodplains for a variety of reasons, including concentrated local precipitation, a lack of infiltration, inadequate facilities for drainage and storm water conveyance, and/or increased surface runoff. Such events often occur in flat areas, particularly during winter and spring in areas with frozen ground, and also in urbanized areas with large impermeable surfaces. High groundwater flooding is a seasonal occurrence in some areas, but may occur in other areas after prolonged periods of above-average precipitation.

Hazard History - Since 1996, there have been 14 major flooding events in Monroe County according to the National Climate Data Center. Table 6 lists each of these events. The NCDC Storm Events Database provides the following details on a flood event in 1996: 'Rainfall of up to eight inches caused many roads in the northwest part of the county to be closed. The storm that caused the heavy rains remained almost stationary over southwest Wilcox, east Clarke and northwest Monroe counties for most of the morning then slowly moved southeast during the afternoon. Most of the roads that had to be closed were dirt roads. The roads remained closed into the early evening hours. The hardest hit areas were Hybart and Franklin (Source: NOAA Storm Events Database). Other flooding events were caused by slow moving thunderstorms resulting in heavy rain or rainfall associated with a hurricanes or tropical storms. Table 6 includes a list of the 14 recent flooding events in Monroe County (Source: NCDC database).

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Hybart	08/30/1996	09:30 AM	Flash Flood	N/A	0	0	15K	0
2 Northeast Portion	06/16/1999	12:00 PM	Flash Flood	N/A	0	0	2K	0
3 Countywide	03/03/2001	12:00 PM	Flash Flood	N/A	0	0	15K	0
4 Uriah	07/02/2003	06:40 PM	Flash Flood	N/A	0	0	0	0
5 Uriah	07/03/2003	04:15 PM	Flash Flood	N/A	0	0	0	0
6 Frisco City	07/22/2003	03:10 PM	Flash Flood	N/A	0	0	0	0
7 West Portion	07/15/2004	05:30 PM	Flash Flood	N/A	0	0	0	0

8 South Portion	09/16/2004	05:00 AM	Flash Flood	N/A	0	0	0	0
9 South Portion	07/06/2005	06:00 AM	Flash Flood	N/A	0	0	0	0
10 Countywide	07/10/2005	05:30 PM	Flash Flood	N/A	0	0	0	0
11 Countywide	08/29/2005	12:00 PM	Flash Flood	N/A	0	0	0	0
12 Uriah	11/15/2006	12:00 PM	Flash Flood	N/A	0	0	0K	0K
13 Claiborne	10/23/2007	00:00 AM	Flash Flood	N/A	0	0	0K	0K
14 Vredenburgh	08/02/2010	16:08 PM	Flash Flood	N/A	0	0	0K	0K
				TOTALS:	0	0	32K	0

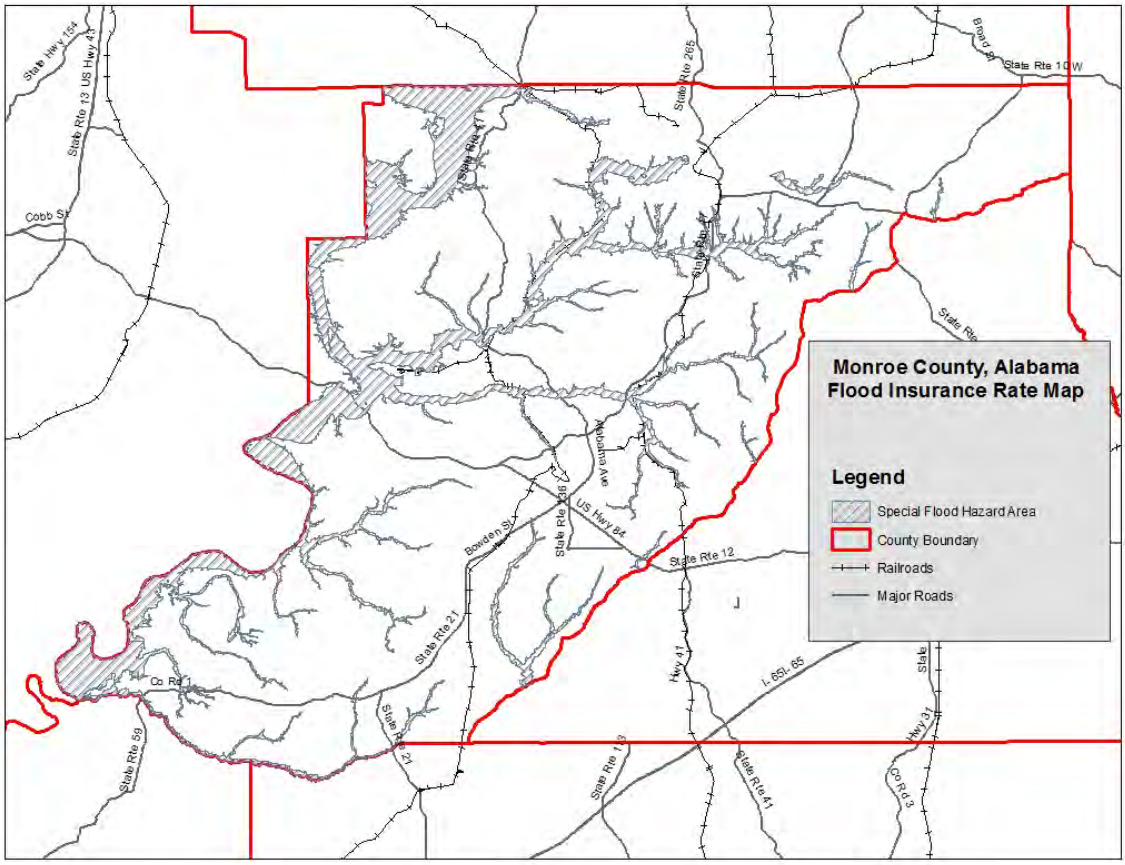
Table 6: Flooding events in Monroe County, Alabama. Sourch: www.ncdc.gov

Community Impact - Flooding caused by rainfall occurs to some extent almost every year in almost every part of Monroe County. Flooding occurs most frequently between November and April, with a peak from February through April. Alabama received more annual rainfall than any other state, creating a high potential for riverine and flash flooding in Monroe County. The measurement used to determine the limits of the floodplain was developed with the enactment of the National Flood Insurance Act of 1968 (NFIP). Under the NFIP it was determined that the base standard was the 100-year or "base flood". This means that the limits of the flood plain arc set by the limits of a rain event that has a 1% annual chance of occurrence. There are established techniques for determining the base flood limits. These techniques have been used to develop Flood Insurance Rate Maps or FIRMs. FIRMs illustrate elevation of the base flood and the 500-year event (0.2% annual chance of occurrence) in areas where a model has been developed.

The risks associated with flash flooding are the same as riverine flooding. One clear distinction is the element of surprise. Flash flooding, as the name implies, occurs quickly and without much warning. In riverine flooding, the time and height of the crest can be accurately predicted, and warnings can be issued several hours in advance. The National Flood Insurance Program's Flood Insurance Rate Maps (FIRMs) for the county were consulted to determine if there was a

flood risk. All areas in the county participate in the NFIP except the towns of Excel, Beatrice, Vrdenburgh and Frisco City. These municipalities are currently sanctioned. There are no repetitive loss properties in Monroe County.

Location and Extent - Most flooding occurs within the Alabama River floodplain, which runs along the western boundary of the County. Other rivers and creeks in the county include Tallatchee Creek, Conley Creek, Big Escambia Creek, Little River, Bailey's Creek, Lovett's Creek, Randons Creek, Big Flat Creek, Robinson Creek, Brushy Creek, Limestone Creek, Fletcher Branch, and Waller Creek. Monroe County has experienced some flood damages, however due to the rural nature of County, flooding is not a major problem. Most flooding is of flash type, along streams and tributaries. Flooding and heavy rain both have also been known to cause major road damage. Floodwaters that cover the surface of the road often result in the base of the road washing away and surface asphalt cracking or failing. Failure of the roads can lead to utility damages. As shown by the flood on August 30, 1996, Monroe County is susceptible to major damage from flooding. On March 3, 200la flood of similar nature caused an equal amount of damage but covered a larger area. Floods are capable of undermining buildings and bridges, eroding shorelines and riverbanks, tearing out trees, washing out access routes, and causing loss of life and injuries. Floods occur in all 50 states and FEMA estimates that 9 million households and $390 billion in property are at risk from flooding. The location of flood-prone areas are located within the 100-year floodplain as determined by the FEMA flood maps. The date of the most recent published FIRM maps is February 4, 2009. Map 6 is a map of the most recent 100-year floodplain data.



Map 6. Monroe County Special Flood Hazard Area (100-year floodplain)

Probability of Future Occurrences - Monroe County experienced 14 flood events over a 16 year period. This results in a probability of a flooding event once every 1-2 years. Based on the flood events since 1996 contained in the Storm Events Database, Monroe County may expect about 0.6 flash or riverine floods per year. Average annual damages are estimated at $4,300. Although we can extract data and probability of occurrence from historical information, they do not necessarily predict future occurrences.

f. Severe Storms

Hazard Description - A severe thunderstorm is a storm containing damaging winds of at least 58 miles per hour or hail that measures a minimum of three-fourths of an inch in diameter. All severe thunderstorms contain intense lightning and straight-line or downburst winds that can be extremely strong and concentrated. Falling rain and sinking air create these winds that can reach speeds as high as 125 mph.

Hazard History – The storm events database contains listing of storms with hail, thunderstorm wind, and lighting. Since 1950 there have been numerous reports of these types of storms. Table 7, Table 8 and Table 9 include summaries of these events in Monroe County.

Since 1968, there have been over 62 hail events resulting in over $200,000 damage to crops and property.

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 MONROE	04/24/1968	1345	Hail	2.00 in.	0	0	0	0
2 MONROE	04/22/1971	1145	Hail	2.00 in.	0	0	0	0
3 MONROE	03/22/1981	1550	Hail	1.00 in.	0	0	0	0
4 MONROE	03/25/1982	1545	Hail	1.75 in.	0	0	0	0
5 MONROE	05/03/1984	0450	Hail	2.25 in.	0	0	0	0
6 MONROE	04/15/1985	1220	Hail	0.75 in.	0	0	0	0
7 MONROE	04/15/1985	1247	Hail	0.75 in.	0	0	0	0
8 MONROE	03/16/1986	0123	Hail	0.75 in.	0	0	0	0
9 MONROE	05/10/1988	1410	Hail	0.75 in.	0	0	0	0
10 MONROE	05/24/1988	1135	Hail	1.50 in.	0	0	0	0
11 MONROE	05/24/1988	1217	Hail	1.75 in.	0	0	0	0
12 MONROE	05/24/1988	1243	Hail	0.75 in.	0	0	0	0
13 MONROE	04/01/1990	1630	Hail	1.00 in.	0	0	0	0
14 MONROE	06/25/1991	1606	Hail	1.75 in.	0	0	0	0
15 Monroeville	03/15/1995	1630	Hail	0.75 in.	0	0	0	0
16 Monroeville	04/23/1995	1820	Hail	1.00 in.	0	0	0	0
17 Monroeville	04/23/1995	1840	Hail	0.50 in.	0	0	0	0
18 Monroeville	02/19/1996	03:20 PM	Hail	0.75 in.	0	0	0	0
19 Tunnel Springs	03/17/1996	04:25 AM	Hail	0.75 in.	0	0	0	0
20 Perdue Hill	12/12/1996	05:25 PM	Hail	0.75 in.	0	0	0	0
21 Monroeville	12/12/1996	06:05	Hail	0.75 in.	0	0	0	0

		PM						
22 Midway	03/29/1997	05:00 PM	Hail	0.88 in.	0	0	0	0
23 Claiborne	03/30/1997	02:45 PM	Hail	0.75 in.	0	0	0	0
24 Hybart	03/30/1997	03:30 PM	Hail	0.75 in.	0	0	0	0
25 Uriah	04/21/1997	04:29 PM	Hail	1.00 in.	0	0	0	0
26 Claiborne	04/22/1997	06:35 PM	Hail	1.00 in.	0	0	0	0
27 Eliska	05/27/1997	10:10 PM	Hail	0.75 in.	0	0	0	0
28 Frisco City	04/17/1998	05:50 PM	Hail	2.75 in.	0	0	40K	20K
29 Uriah	04/17/1998	06:45 PM	Hail	1.75 in.	0	0	0	0
30 Nadawah	05/03/1998	02:45 PM	Hail	0.75 in.	0	0	0	0
31 Mineola	05/03/1998	06:50 PM	Hail	2.75 in.	0	0	50K	30K
32 Goodway	05/03/1998	06:54 PM	Hail	1.75 in.	0	0	0	0
33 Chrysler	05/03/1998	06:55 PM	Hail	2.75 in.	0	0	10K	0
34 Frisco City	05/03/1998	07:17 PM	Hail	1.75 in.	0	0	0	0
35 Monroeville	06/20/1998	02:10 PM	Hail	1.00 in.	0	0	0	0
36 Peterman	02/27/2001	04:40 PM	Hail	0.88 in.	0	0	0	0
37 Nadawah	05/27/2001	05:40 PM	Hail	0.75 in.	0	0	0	0
38 Goodway	03/13/2003	03:20 PM	Hail	0.75 in.	0	0	0	0
39 Finchburg	05/02/2003	04:20 PM	Hail	1.75 in.	0	0	0	0

40 Uriah	05/02/2003	05:55 PM	Hail	1.25 in.	0	0	0	0
41 Uriah	05/02/2003	06:45 PM	Hail	1.00 in.	0	0	0	0
42 Hybart	05/03/2003	02:15 AM	Hail	0.75 in.	0	0	0	0
43 Mexia	05/01/2004	02:41 PM	Hail	1.00 in.	0	0	0	0
44 Frisco City	07/15/2004	05:25 PM	Hail	0.75 in.	0	0	0	0
45 Monroeville	07/16/2004	01:55 PM	Hail	0.75 in.	0	0	0	0
46 Beatrice	10/19/2004	06:05 PM	Hail	0.75 in.	0	0	0	0
47 Monroeville	03/26/2005	09:45 PM	Hail	0.75 in.	0	0	0	0
48 Monroeville	04/21/2005	07:35 PM	Hail	0.75 in.	0	0	0	0
49 Monroeville	06/02/2005	01:30 PM	Hail	0.88 in.	0	0	0	0
50 Monroeville	05/10/2006	06:54 PM	Hail	0.88 in.	0	0	0	0
51 Uriah	08/30/2006	04:09 PM	Hail	0.88 in.	0	0	0	0
52 Frisco City	05/02/2007	16:20 PM	Hail	0.88 in.	0	0	0K	0K
53 Excel	05/02/2007	16:25 PM	Hail	1.25 in.	0	0	0K	0K
54 Megargel	08/23/2007	18:25 PM	Hail	0.75 in.	0	0	0K	0K
55 Peterman	12/20/2007	13:45 PM	Hail	0.75 in.	0	0	0K	0K
56 Monroeville	01/10/2008	20:00 PM	Hail	0.75 in.	0	0	0K	0K
57 Monroeville	02/26/2008	06:55 AM	Hail	0.75 in.	0	0	0K	0K
58 Peterman	04/19/2009	18:35	Hail	0.88 in.	0	0	0K	0K

		PM						
59 Buena Vista	04/15/2011	14:06 PM	Hail	0.75 in.	0	0	0K	0K
60 Buena Vista	04/15/2011	14:16 PM	Hail	0.75 in.	0	0	0K	0K
61 Finchberry	04/15/2011	20:55 PM	Hail	0.75 in.	0	0	0K	0K
62 Uriah	06/07/2011	15:43 PM	Hail	1.00 in.	0	0	0K	0K
TOTALS:					0	0	100K	50K

Table 7. Hail storms in Monroe County, Alabama (source: NCDC Database)

Table 8 summarizes events in Monroe County with high winds associated with thunderstorms. Since 1969, there has been over 2.048 million dollars in damages to crops and property.

Alabama								
Location or County	**Date**	**Time**	**Type**	**Mag**	**Dth**	**Inj**	**PrD**	**CrD**
1 MONROE	05/08/1969	1800	Tstm Wind	0 kts.	0	0	0	0
2 MONROE	11/14/1970	0210	Tstm Wind	0 kts.	0	0	0	0
3 MONROE	04/29/1971	1210	Tstm Wind	86 kts.	0	0	0	0
4 MONROE	11/13/1972	1300	Tstm Wind	0 kts.	0	0	0	0
5 MONROE	07/31/1977	1400	Tstm Wind	0 kts.	0	0	0	0
6 MONROE	04/18/1978	0650	Tstm Wind	0 kts.	0	0	0	0
7 MONROE	04/11/1979	2350	Tstm Wind	0 kts.	0	0	0	0
8 MONROE	03/17/1980	1015	Tstm Wind	0 kts.	0	0	0	0
9 MONROE	02/01/1983	0600	Tstm Wind	0 kts.	0	0	0	0

10 MONROE	02/01/1983	0600	Tstm Wind	0 kts.	0	0	0	0
11 MONROE	12/03/1983	1800	Tstm Wind	0 kts.	0	0	0	0
12 MONROE	12/03/1983	1810	Tstm Wind	0 kts.	0	0	0	0
13 MONROE	12/03/1983	1815	Tstm Wind	0 kts.	0	0	0	0
14 MONROE	12/03/1983	1830	Tstm Wind	0 kts.	0	0	0	0
15 MONROE	12/03/1983	1845	Tstm Wind	0 kts.	0	0	0	0
16 MONROE	05/03/1984	0510	Tstm Wind	0 kts.	0	0	0	0
17 MONROE	12/31/1985	1114	Tstm Wind	0 kts.	0	0	0	0
18 MONROE	02/17/1986	1730	Tstm Wind	0 kts.	0	0	0	0
19 MONROE	02/17/1986	1730	Tstm Wind	0 kts.	0	0	0	0
20 MONROE	07/28/1986	1700	Tstm Wind	0 kts.	0	0	0	0
21 MONROE	07/16/1989	1500	Tstm Wind	0 kts.	0	0	0	0
22 MONROE	02/16/1990	0850	Tstm Wind	0 kts.	0	0	0	0
23 MONROE	04/01/1990	1610	Tstm Wind	0 kts.	0	0	0	0
24 MONROE	04/01/1990	1630	Tstm Wind	0 kts.	0	0	0	0
25 MONROE	06/01/1990	1445	Tstm Wind	0 kts.	0	0	0	0
26 MONROE	08/19/1990	1530	Tstm Wind	0 kts.	0	0	0	0
27 MONROE	05/20/1991	1430	Tstm Wind	0 kts.	0	0	0	0
28 MONROE	03/10/1992	0430	Tstm Wind	0	0	0	0	0

				kts.				
29 MONROE	04/20/1992	1315	Tstm Wind	0 kts.	0	0	0	0
30 MONROE	06/03/1992	1735	Tstm Wind	0 kts.	0	0	0	0
31 MONROE	08/09/1992	1857	Tstm Wind	52 kts.	0	0	0	0
32 Monroeville	04/15/1994	1855	Thunderstorm Winds	0 kts.	0	0	5K	0
33 MONROE	05/15/1994	1930	Thunderstorm Winds	0 kts.	0	0	50K	0
34 MONROE	05/15/1995	1950	Thunderstorm Winds	0 kts.	0	0	1K	0
35 Beatrice	07/08/1995	1440	Thunderstorm Winds	0 kts.	0	0	2K	0
36 Excel	07/08/1995	1500	Thunderstorm Winds	0 kts.	0	0	1K	0
37 Excel	07/09/1995	1215	Thunderstorm Winds	0 kts.	0	0	3K	0
38 Frisco City	01/26/1996	05:40 PM	Tstm Wind	50 kts.	0	0	2K	0
39 Jeddo	01/26/1996	06:50 PM	Tstm Wind	55 kts.	0	0	2K	0
40 Frisco City	02/19/1996	03:00 PM	Tstm Wind	60 kts.	0	0	15K	0
41 Tunnel Spgs	02/19/1996	04:30 PM	Tstm Wind	55 kts.	0	0	5K	0
42 Monroeville	12/16/1996	08:00 PM	Tstm Wind	50 kts.	0	0	2K	0
43 Frisco City	01/24/1997	06:55 AM	Tstm Wind	50 kts.	0	0	2K	0
44 Uriah	01/24/1997	06:55 AM	Tstm Wind	55 kts.	0	0	10K	0
45 Ollie	01/24/1997	06:56 AM	Tstm Wind	55 kts.	0	0	25K	0
46 Monroeville	01/24/1997	07:00 AM	Tstm Wind	50 kts.	0	0	2K	0

47 Monroeville	04/22/1997	06:30 PM	Tstm Wind	50 kts.	0	0	1K	0
48 Peterman	04/22/1997	08:45 PM	Tstm Wind	50 kts.	0	0	1K	0
49 Hybart	11/01/1997	03:20 PM	Tstm Wind	50 kts.	0	0	2K	0
50 Excel	01/07/1998	08:35 AM	Tstm Wind	50 kts.	0	0	3K	0
51 Frisco City	04/17/1998	05:50 PM	Tstm Wind	60 kts.	0	0	10K	0
52 Countywide	06/05/1998	11:30 PM	Tstm Wind	60 kts.	0	0	50K	0
53 Monroeville	01/02/1999	11:25 AM	Tstm Wind	55 kts.	0	0	5K	0
54 Monroeville	04/06/1999	05:45 PM	Tstm Wind	55 kts.	0	0	5K	0
55 Claiborne	06/04/1999	07:40 PM	Tstm Wind	58 kts.	0	0	5K	0
56 Goodway	08/25/2000	02:00 PM	Tstm Wind	65 kts.	0	0	3K	0
57 Peterman	02/27/2001	04:45 PM	Tstm Wind	55 kts.	0	0	5K	0
58 Uriah	03/12/2001	11:57 AM	Tstm Wind	85 kts.	0	0	100K	0
59 Frisco City	10/13/2001	02:00 PM	Tstm Wind	60 kts.	0	0	15K	0
60 Claiborne	10/13/2001	06:45 PM	Tstm Wind	60 kts.	0	0	15K	0
61 Goodway	10/13/2001	12:35 PM	Tstm Wind	50 kts.	0	0	20K	0
62 Uriah	11/24/2001	05:10 PM	Tstm Wind	55 kts.	0	0	10K	0
63 Monroeville	01/19/2002	01:15 PM	Tstm Wind	60 kts.	0	0	25K	0
64 Monroeville	04/29/2002	03:00 PM	Tstm Wind	50 kts.	0	0	8K	0
65	08/02/2002	02:10	Tstm Wind	55	0	0	50K	0

Monroeville		PM		kts.				
66 Monroeville	12/19/2002	05:20 PM	Tstm Wind	50 kts.	0	0	5K	0
67 Tunnell Spgs	12/24/2002	04:05 AM	Tstm Wind	50 kts.	0	0	5K	0
68 Peterman	06/19/2003	02:15 PM	Tstm Wind	50 kts.	0	0	5K	0
69 Monroeville	07/22/2003	12:35 PM	Tstm Wind	58 kts.	0	0	5K	0
70 Excel	08/03/2003	12:20 PM	Tstm Wind	50 kts.	0	0	20K	0
71 Monroeville	08/27/2003	04:10 PM	Tstm Wind	50 kts.	0	0	5K	0
72 Frisco City	06/12/2004	02:45 PM	Tstm Wind	50 kts.	0	0	20K	0
73 Frisco City	06/26/2004	12:30 PM	Tstm Wind	50 kts.	0	0	10K	0
74 Frisco City	06/28/2004	01:15 PM	Tstm Wind	50 kts.	0	0	5K	0
75 Claiborne	06/28/2004	02:00 PM	Tstm Wind	50 kts.	0	0	5K	0
76 Excel	07/15/2004	06:00 PM	Tstm Wind	50 kts.	0	0	8K	0
77 Perdue Hill	07/16/2004	01:40 PM	Tstm Wind	50 kts.	0	0	8K	0
78 Tunnell Spgs	10/19/2004	06:55 PM	Tstm Wind	50 kts.	0	0	7K	0
79 Uriah	04/22/2005	07:25 PM	Tstm Wind	50 kts.	0	0	10K	0
80 Monroeville	04/30/2005	05:10 AM	Tstm Wind	50 kts.	0	0	10K	0
81 Megargel	05/09/2006	06:45 PM	Tstm Wind	50 kts.	0	0	15K	0
82 Monroeville	11/15/2006	07:25 AM	Thunderstorm Wind	50 kts.	0	0	10K	0K
83 Monroeville	11/15/2006	08:00 AM	Thunderstorm Wind	50 kts.	0	0	12K	0K

84 Monroeville	01/07/2007	15:55 PM	Thunderstorm Wind	50 kts.	0	0	10K	0K
85 Monroeville	04/14/2007	12:28 PM	Thunderstorm Wind	87 kts.	0	0	0K	1.0M
86 Hybart	01/31/2008	18:20 PM	Thunderstorm Wind	50 kts.	0	0	20K	0K
87 Frisco City	02/06/2008	06:53 AM	Thunderstorm Wind	50 kts.	0	0	20K	0K
88 Uriah	05/15/2008	10:45 AM	Thunderstorm Wind	50 kts.	0	0	40K	0K
89 Monroeville	12/24/2008	16:10 PM	Thunderstorm Wind	61 kts.	0	0	200K	0K
90 Frisco City	05/03/2009	13:18 PM	Thunderstorm Wind	52 kts.	0	0	15K	0K
91 Monroeville	05/03/2009	13:22 PM	Thunderstorm Wind	52 kts.	0	0	10K	0K
92 Burnt Corn	06/23/2009	16:48 PM	Thunderstorm Wind	52 kts.	0	0	15K	0K
93 Peterman	01/24/2010	11:25 AM	Thunderstorm Wind	50 kts.	0	0	0K	0K
94 Beatrice	06/01/2010	15:10 PM	Thunderstorm Wind	52 kts.	0	0	10K	0K
95 River Ridge	08/02/2010	15:31 PM	Thunderstorm Wind	52 kts.	0	0	10K	0K
96 Monroeville	04/15/2011	14:00 PM	Thunderstorm Wind	50 kts.	0	0	35K	0K
97 Uriah	06/05/2011	14:35 PM	Thunderstorm Wind	61 kts.	0	0	20K	0K
98 Uriah	06/07/2011	16:13 PM	Thunderstorm Wind	52 kts.	0	0	5K	0K
99 Monroeville	06/10/2011	15:00 PM	Thunderstorm Wind	60 kts.	0	0	5K	0K
100 Mexia	06/10/2011	15:15 PM	Thunderstorm Wind	52 kts.	0	0	5K	0K
101 Frisco City	06/21/2011	19:40 PM	Thunderstorm Wind	52 kts.	0	0	5K	0K
TOTALS:					0	0	1.048M	1.000M

Table 8. High wind events from thunderstorms in Monroe County, Alabama (source: NCDC Database)

Since 1994, there have been 5 major events resulting in damage from lightning. These damages have resulted in over 1.03 million in damage to property. Table 9 lists the events as described in the NGDC database.

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Monroeville	06/21/1994	1400	Lightning	N/A	0	0	500K	0
2 Tunnel Springs	07/03/1995	1400	Lightning	N/A	0	1	0	0
3 Frisco City	04/22/1997	06:40 PM	Lightning	N/A	0	0	30K	0
4 Beatrice	03/12/2001	06:40 AM	Lightning	N/A	0	0	500K	0
5 Franklin	08/07/2007	13:50 PM	Lightning	N/A	1	0	0K	0K
TOTALS:					1	1	1.030M	0

Table 9. Lightning events in Monroe County since 1994 (source: NCDC Database)

Community Impact - Since 1975 Monroe County has experienced 168 severe thunderstorms. Large hail, though very rare, can cause injury or loss of life. Normally it only causes damage to automobiles, trees and crops. Both lightning and high winds frequently cause loss of life and considerable property damage. The power of lightning's electrical charge and intense heat can electrocute on contact, split trees, ignite fires, and cause electrical failures.

Location and Extent – All of Monroe County is vulnerable to severe storms with strong winds, hail and/or lightning.

Probability of Future Occurrences: The historical occurrence and expected future occurrences of these events has led the county to rank severe storms as a high risk. The probability of a severe thunderstorm occurring depends on certain atmospheric and climatic conditions. Based on the number of damage- causing

severe storms since 1994 contained in the Storm Events Database, Monroe County can expect approximately four instances of lightning-, straight-line wind- or hail-induced damage per year. Average annual damages from severe storm events are estimated at $108,000. Although we can extract data and probability of occurrence from historical information, the risk of a thunderstorm occurring and the location of damage appear to be a random event.

g. Tornadoes

Hazard Description - A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm or hurricane and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. Tornado season is generally March through August, although tornadoes can occur at any time of year. They tend to occur in the afternoons and evenings: over 80 percent of all tornadoes strike between noon and midnight. The National Weather Service defines a tornado as, “A violently rotating column of air in contact with the ground and extending from the base of a thunderstorm.

Hazard History – There have been several tornados that have occurred in Monroe County. The earliest damage-causing event on record occurred in 1956 and the most recent occurred in 2011. Tornado magnitudes are measured on the enhanced Fujita Scale. Figure 3 is a depiction of the original and enhanced Fujita scale.

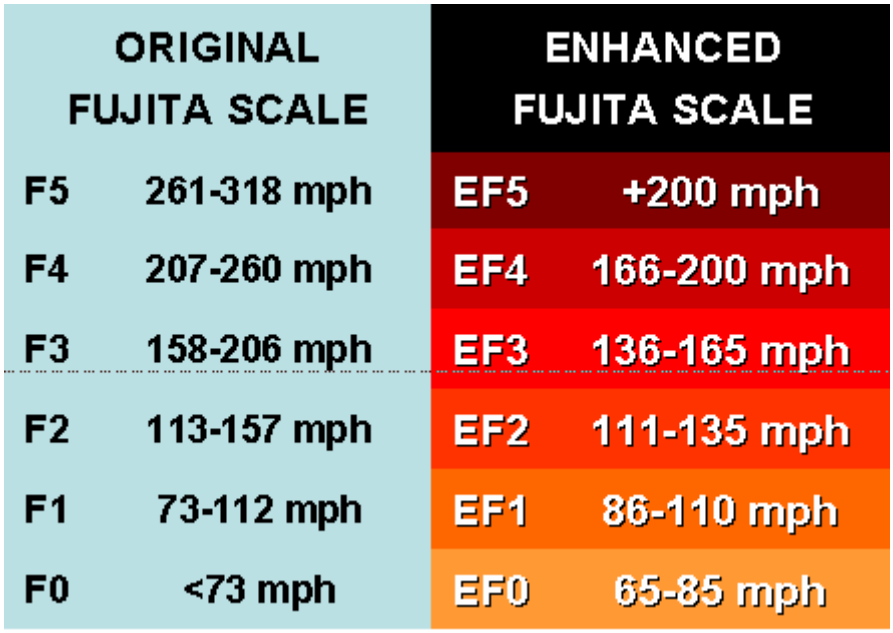


Figure 3. Original and Enhance Fujita Scale for U.S. tornadoes. Source: FEMA

Table 10 includes a list of all the torandoes greater than F0 that have occurred in Monroe County since 1956. There are 16 events that have caused

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 MONROE	12/23/1956	0050	Tornado	F2	0	0	0K	0
2 MONROE	06/28/1957	0955	Tornado	F2	0	4	250K	0
3 MONROE	03/29/1960	1700	Tornado	F2	0	0	25K	0
4 MONROE	12/02/1967	1545	Tornado	F2	0	0	250K	0
5 MONROE	04/23/1971	1140	Tornado	F4	0	0	25K	0
6 MONROE	12/20/1971	0330	Tornado	F3	0	1	250K	0
7 MONROE	05/08/1973	0657	Tornado	F1	0	2	250K	0
8 MONROE	04/18/1978	1700	Tornado	F3	0	30	2.5M	0
9 MONROE	01/03/1982	2345	Tornado	F1	0	0	25K	0
10 MONROE	03/29/1991	1000	Tornado	F1	0	0	0K	0

11 Claiborne	03/18/1996	06:07 PM	Tornado	F2	0	5	150K	0
12 Vredenburgh	04/14/2007	12:33 PM	Tornado	F1	0	0	750K	0K
13 Beatrice	04/15/2011	14:06 PM	Tornado	F1	0	0	0K	0K
14 Tunnell Spgs	04/15/2011	16:11 PM	Tornado	F2	0	0	200K	0K
15 Midway	04/15/2011	16:29 PM	Tornado	F2	0	0	300K	0K
16 Turnbull	04/15/2011	21:26 PM	Tornado	F2	0	0	400K	0K
TOTALS:					0	42	5.375M	0

Table 10. Tornadoes in Monroe County, Alabama. (source: NCDC Database)

According to the database, a total of 16 tornado events have caused 0 deaths, 42 injuries and approximately $5.27 million in property damage in the county since 1956. The worst tornado to strike the county was an F3 in April 1978 that caused 30 injuries and $2.5 million in damages. It cut a path of destruction 220 yards wide and 11 miles long, beginning at LAT/LON 31°32'N/87°27'W and ending at 31°35'N/87°17'W. Figure 3 depicts Monroe County historical tornado tracks to 2003.

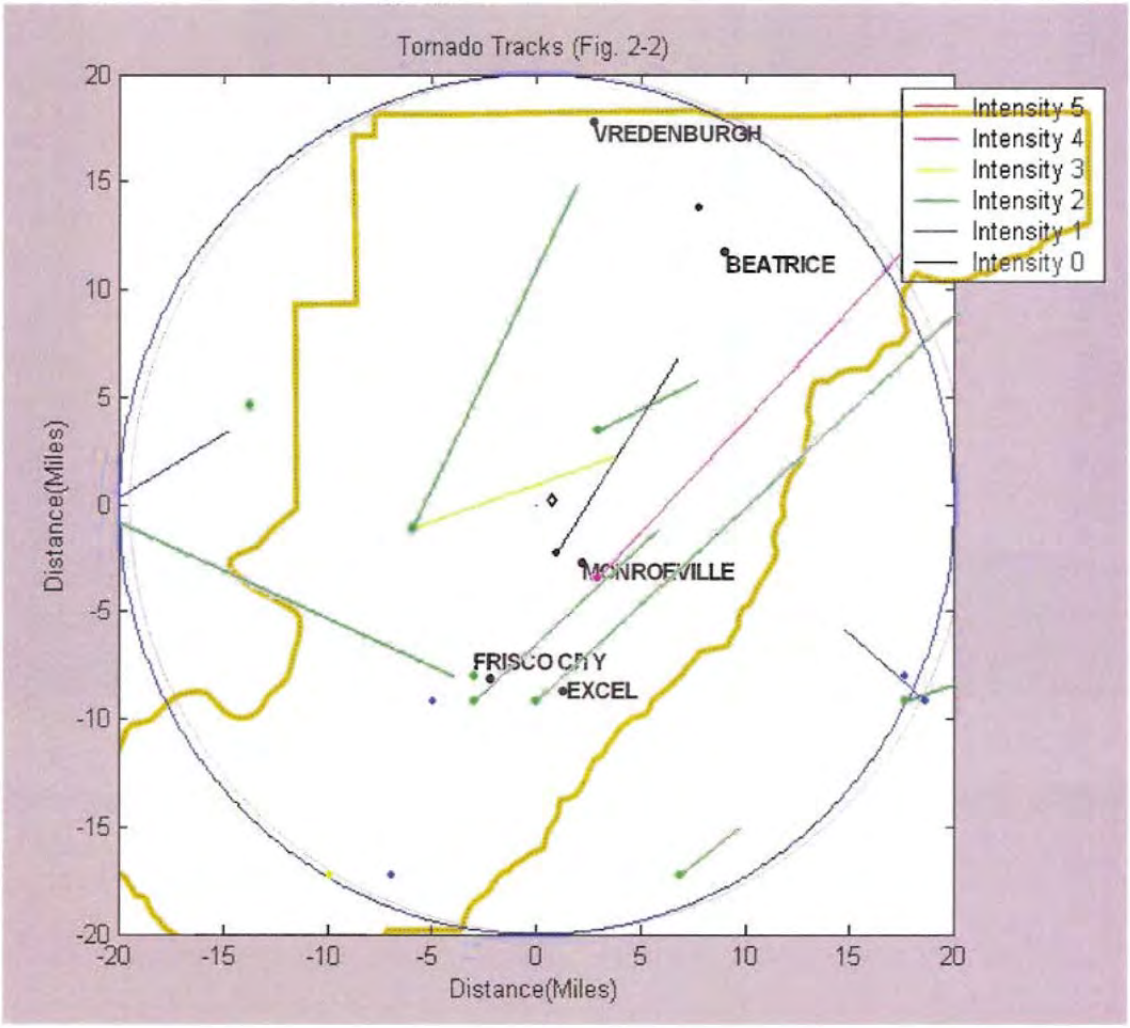


Figure 4. Historical Tornado Tracks in Monroe County

On April 15, 2011 three tornadoes caused impact in Monroe County. The first was a F2 located in Tunnel Springs between Monroeville and Beatrice. The entire roof of Amity Missionary Baptist Church was blown off. The second tornado was another F2 located in Midway. TThis tornado caused roof and shingle damage to 3 residences. One home had complete failure of roof and walls of garage. The path was 400 yards wide with numerous softwood and hardwood trees snapped or uprooted. The third tornado also occurred near Midway. All shingles and tarpaper covering as well as steeple was removed from Savannah Missionary Baptist Church.

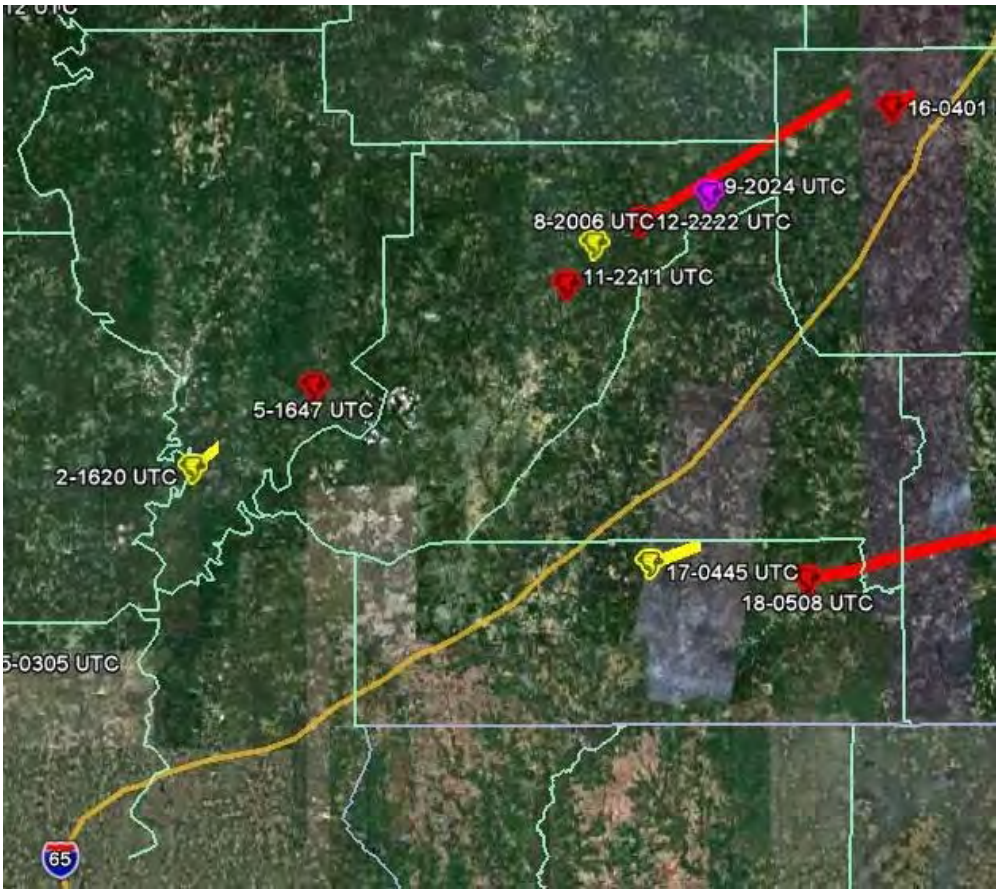


Figure 5. Monroe County tornado tracks in Monroe County, Alabama on April 15, 2011. (source: http://www.srh.noaa.gov/mob/?n=20110415_monroe_butler)

Community Impact - The damage from a tornado is a result of the high wind velocity and wind-blown debris. Tornado winds can approach speeds as high as 300 miles per hour, travel distances over 100 miles and reach heights over 60,000 feet above ground.

Location and Extent - Paths of tornadoes within a 20-mile radius of the center of Monroe County since 1950 are shown on Map 4-1. The entire county is equally susceptible to damage from tornadoes.

Probability of Future Occurrences - The occurrence of tornadoes cannot be predicted, but past occurrences and basic weather patterns can be used to identify areas that are more susceptible. Based on the information available from the Storm Events Database, it appears the county may expect a damage-causing tornado once every 5.5 years. A death- or injury- causing tornado has occurred, on average, once every 18 and 3.5 years, respectively. Average annual damages are estimated at $74,000 per year. Although we can extract data and probability of occurrence from historical information, the risk of a tornado occurring and the

location of damage appear to be a random event. Figure 6 shows the number of tornadoes that have occurred per one thousand square miles. Monroe County falls within the one to five tornadoes per one thousand square miles range.

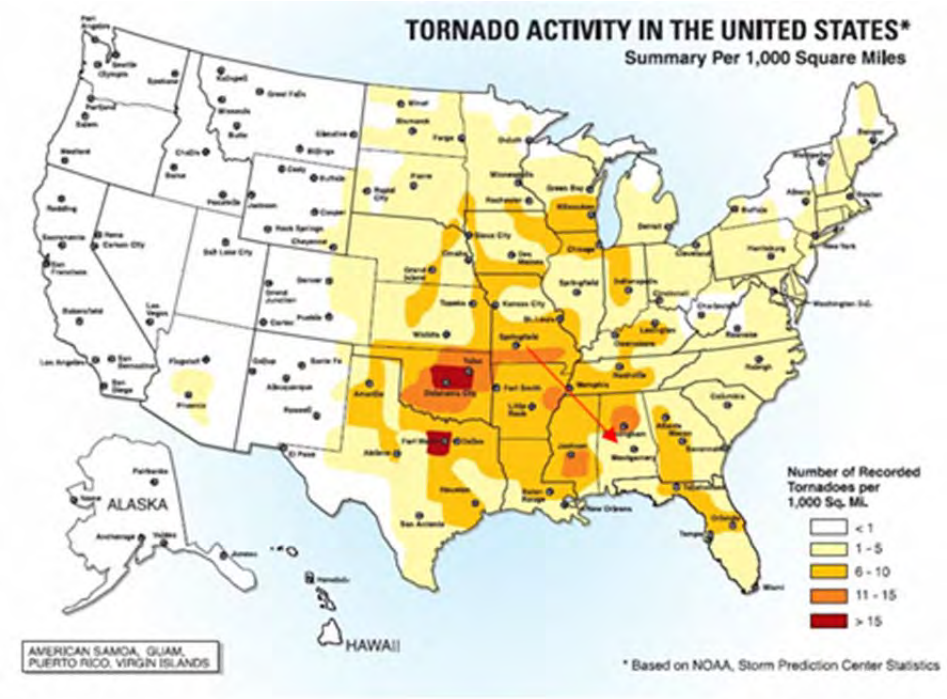


Figure 6. Tornadoes per 1,000 square miles. Source: http://www.fema.gov/pdf/library/2ismsec1.pdf

The United States Wind Zone map (Figure 7) shows how intense and frequent strong winds occur across the United States. Monroe County is located in Wind Zone II, which has a design wind speed of 200 miles per hour. Design wind speed is the wind speed that homes should be constructed to withstand. Locations within this zone have had the medium intensity and frequency of tornadoes and strong winds. Due to the county's historical occurrences, climate, and location the committee considers tornadoes a high risk hazard.

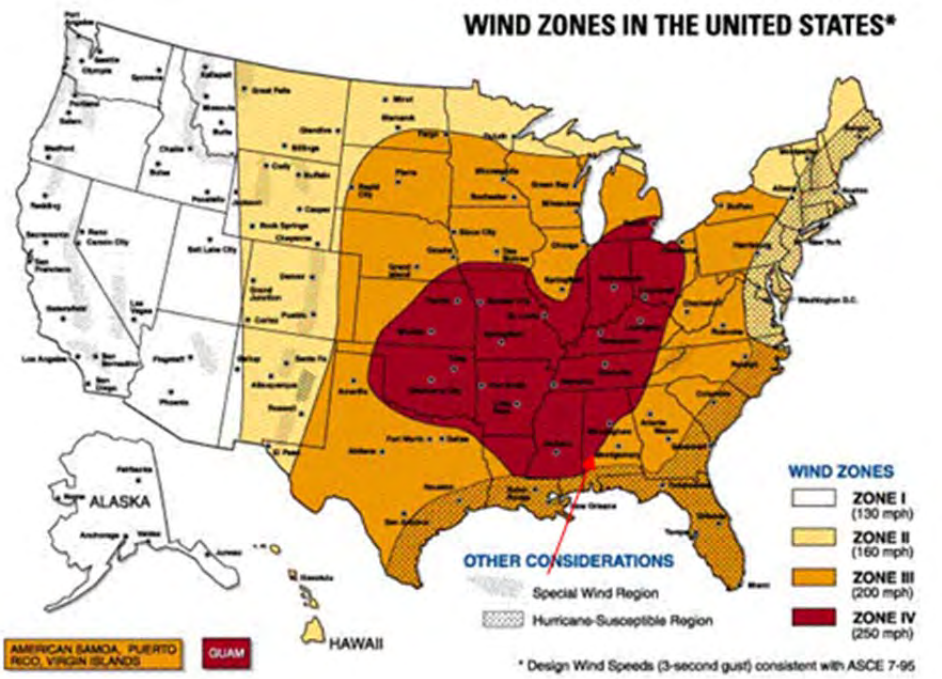


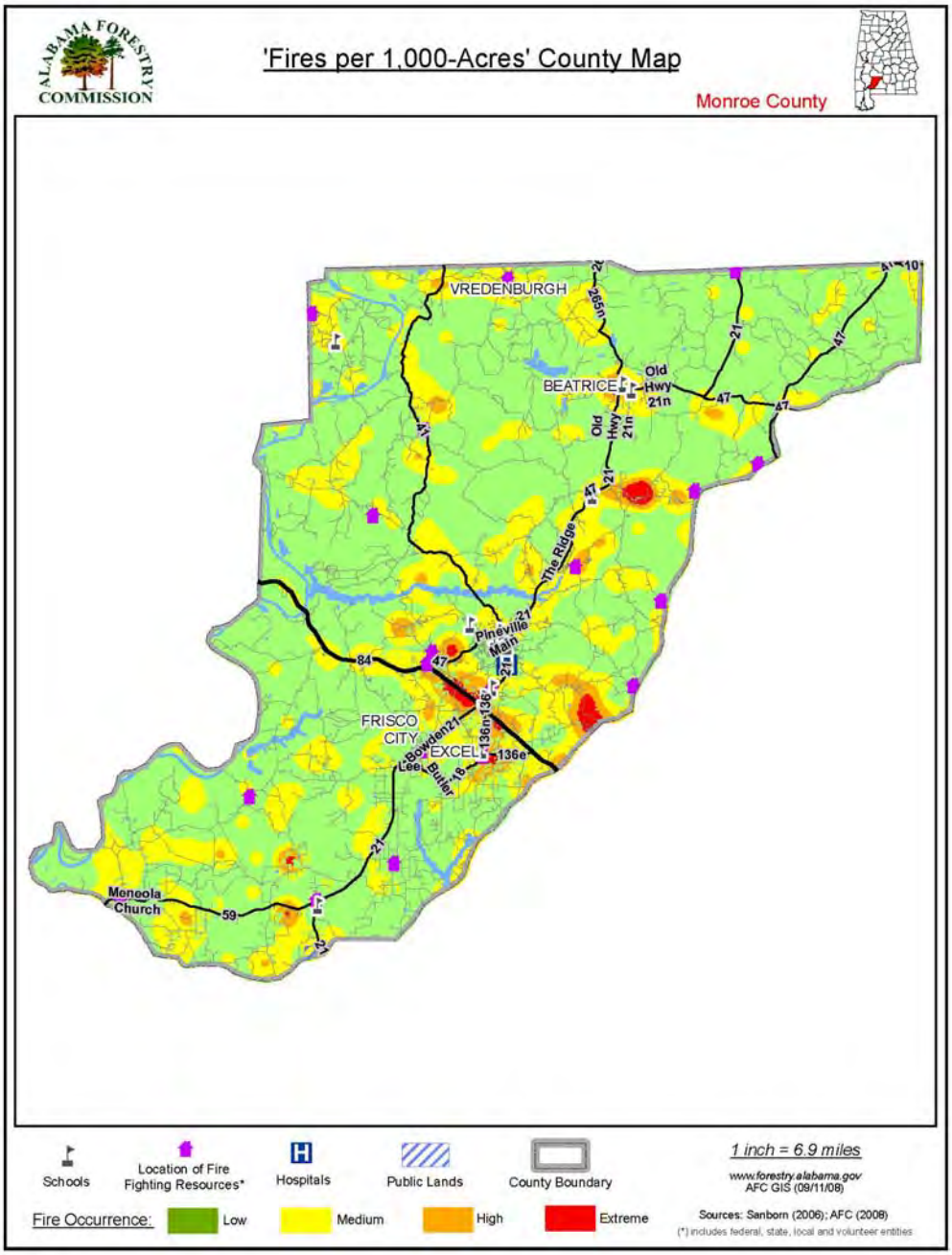
Figure 7. Wind Zones in the United States – Note Monroe County is in Zone III. Source: Federal Emergency Management Agency: http://www.fema.gov/graphics/fima/tsfsm01.gif

h. Wildfire

Hazard Description - There are four categories of wildfires that are experienced throughout the United States including: wildland fires, interface or intermix fires, firestorms, prescribed fires and prescribed natural fires. The primary categories of fires in Monroe County are wildland fires. Wildland fires are fueled exclusively by natural vegetation. The frequency and severity of wildfires is dependent on weather and on human activity. Nearly all wildfires in Monroe County are human caused (only a very small percent are caused by lightning), with arson and careless debris burning being the major causes of wildfires. If not promptly controlled, wildfires may grow into an emergency or disaster. Even small fires can threaten lives, damage forest resources, and destroy structures.

Hazard History – According the NCDC database, there has only been one significant fire in Monroe County. This fire was located in the Franklin community and took place on 8/27/2000. Historical fire data was obtained from the Alabama Forestry Commission. From 10/1/2008 to 9/30/2011, there were 150 reported fires for a total of 1054 acres burned. Map 7 depicts fire occurrence for every

1000 acres. This map depicts areas of low, medium, high and extreme fire location. There have been extreme fires in several locations throughout Monroe County, but overall the majority of the county's area has been low to medium fire occurrence.

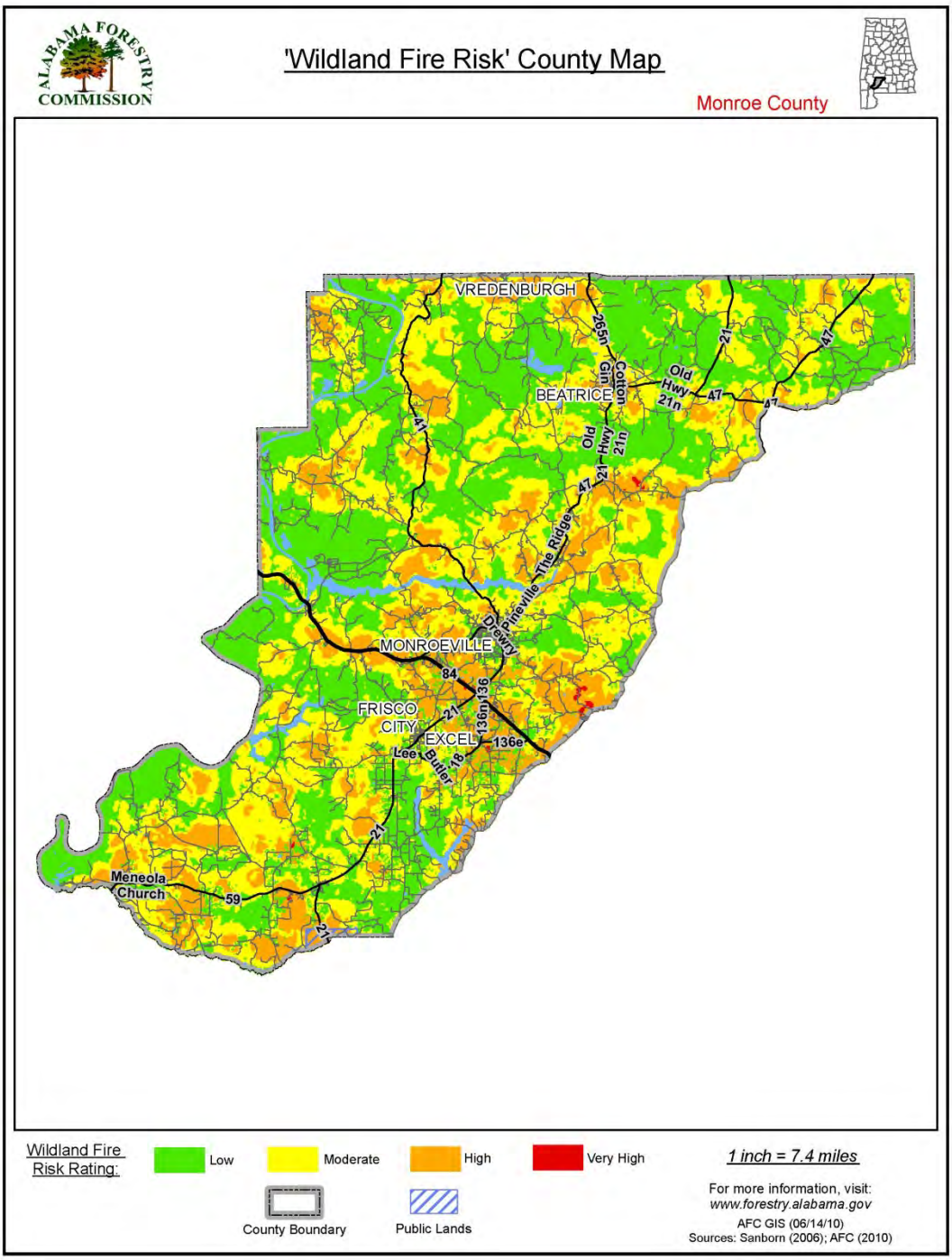


Map 7. Fires per 1000 acres in Monroe County, Alabama (source: Alabama Forestry Commission)

Community Impact - Wildfires can cause considerable damage and loss of life especially in areas where there is an interface between wild land and urban development. Monroe County has multiple fuel sources and is prone to drought and thunderstorms; therefore, wildfires are a significant risk. Furthermore, rural fire departments are almost exclusively made up of volunteers and usually have limited resources that are stretched during periods when numerous fires occur.

Location and Extent – Wildland fires can occur anywhere in Monroe County, however the risk is higher in rural forested areas.

Probability of Future Occurrences: Based on historical information, Monroe County can expect an average of 50 significant wildfires per year that damage or destroy an average of 21.08 acres per event. Although one can extract data and probability of occurrence from historical information, the risk of a wild fire occurring and the location of damage appear to be random.



Map 8 - Monroe County Fire Risk – Source Alabama Forestry Commission

i. Drought/Heat Waves

Hazard Description – Extreme summer heat is the combination of very high temperatures and exceptionally humid conditions. If such conditions persist for an extended period of time, it is called a heat wave. Heat stress can be indexed by combing the effects of temperature and humidity. Temperatures that hove 10 degrees or more above the average high temperature for the region and last for several weeks are defined as extreme heat. Humid or muggy conditions occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. The combined high temperatures and humid conditions increase the level of discomfort and the potential for danger to humans. Droughts occur when a long period passes without any substantial rainfall. A heat wave combined with ad drought is very dangerous to human life and the environment.

Hazard History - There have been 4 major extreme heat events since 2000 and no droughts in the National Climate Data Center database.

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 ALZ039 - 051>064	07/01/2000	12:01 AM	Excessive Heat	N/A	0	0	0	0
2 ALZ055	08/29/2000	01:48 PM	Excessive Heat	N/A	0	0	0	0
3 ALZ051>064	08/08/2007	08:00 AM	Heat	N/A	0	0	0K	0K
				TOTALS:	0	0	0	0

Table 11. Excessive Heat events in Monroe County, Alabama. (source: NCDC Database)

Community Impact – The human risks associated with extreme heat include heatstroke, heat exhaustion, and heat syncope, heat cramps. A description of each of these conditions follows:

- Heatstroke is considered a medical emergency and is often fatal. It exists when rectal temperature rises above 105°F as a result of environmental

temperatures. Patients may be delirious or comatose. The death-to-care ratio in reported cases averages about 15%.

- Heat Exhaustion is much less severe than heatstroke. The body temperature may be normal or slightly elevated. A person suffe1ing from heat exhaustion may complain of dizziness, weakness or fatigue. The primary cause of heat exhaustion is fluid and electrolyte imbalance. The normalization of fluids will typically alleviate the situation.
- Heat Syncope is typically associated with exercise by people who are not acclimated to exercise. The symptom is a sudden loss of consciousness. Consciousness returns promptly when the person lies down. The cause is primarily associated with circulatory instability as a result of heat. The condition typically causes little or no harm to the individual.
- Heat Cramps are typically a problem for individuals who exercise outdoors but arc unaccustomed to heat. Similar to heat exhaustion it is thought to be a result of a mild imbalance of t1uids and electrolytes.

Risks associated with drought include effects to the water supply, impact on agriculture, increase in wildfires, negative impact on hydroelectric power, and other activities dependent on water such as recreation and navigation. According to the U.S. Drought Monitor effective December 27, 2011, Monroe County is currently under a moderate drought condition.

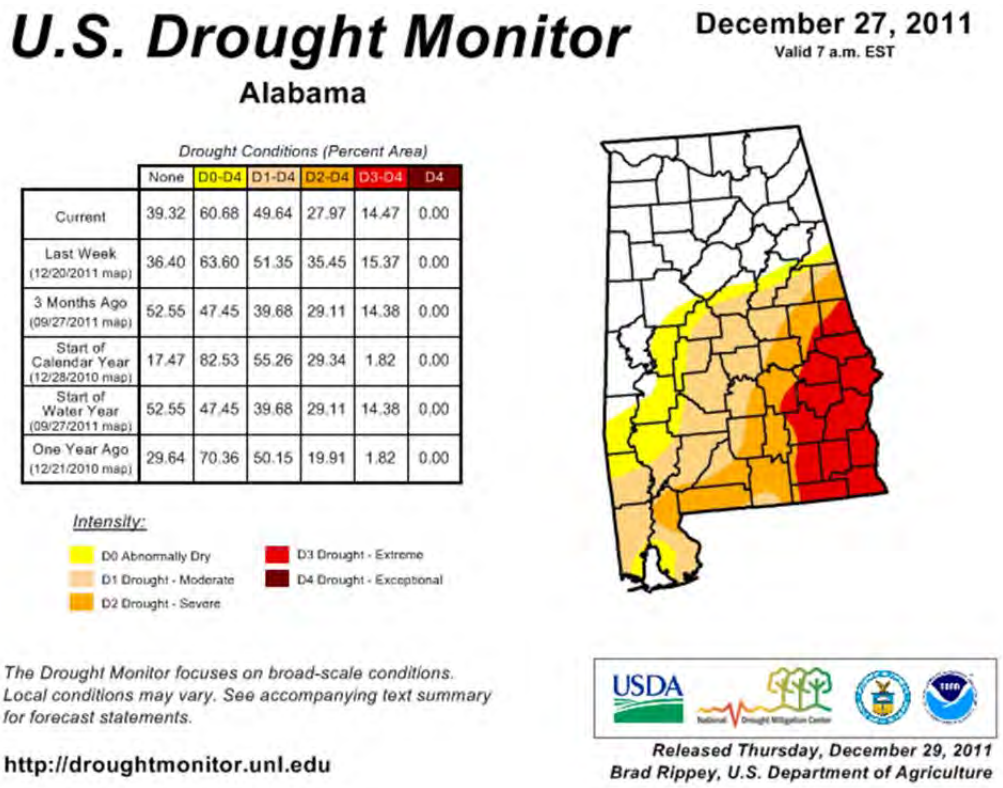


Figure 8 – U.S. Drought Monitor – December 27, 2011 Source: www.droughmonitor.unl.edu

Probability of Future Occurrences – Due to a lack of data, average annual occurrences and damage estimates cannot be made. Historically these events do not pose severe risk as the residents in these areas are well-adapted to heat and dry conditions. There have been 3 events in the past 11 years, resulting in a probability of 27% these events can occur on annual basis. There is not a summary of impact of costs as not data was collected during previous events, however losses are expected to be minimal.

j. Winter Storms/Freezes

Hazard Description – Winter storms vary in size and strength and include heavy snowstorms, blizzards, freezing rain, sleet, ice storms and blowing and drifting snow conditions. Extremely cold temperatures accompanied by strong winds can results in wind chills then cause bodily injury such as frostbite and death. Severe winter and ice storms can cause unusually heavy rain or snowfall, high wind, extreme cold and ice storms throughout Monroe County. Winter storms and blizzards originate as mid-latitude depressions or cyclonic weather systems, sometimes following the meandering path of the jet stream. A blizzard combines heavy snowfall, high winds, extreme cold, and ice storms. The origins of the weather patterns that cause severe winter storms arc primarily from four sources in the continental United States. Winter storms in the southeast region are usually a result of Canadian and Arctic cold fronts from the north and mid-western states combining with tropical cyclonic weather systems in the Gulf of Mexico.

Hazard History – According to the NCDC database, there have been 4 Winter Storm events since 2000.

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 ALZ039 - 051>056	12/21/2000	05:00 AM	Winter Storm	N/A	0	0	30K	0
2 ALZ039 - 051>055	01/01/2001	03:00 AM	Winter Storm	N/A	0	0	0	0
3 ALZ051>062	01/02/2002	12:00 AM	Winter Storm	N/A	0	0	0	0
4 ALZ052>062	02/12/2010	00:00 AM	Winter Storm	N/A	0	0	0K	0K

TOTALS:	0	0	30K	0

Table 12. Winter Storm events in Monroe County, Alabama. (source: NCDC Database)

Community Impact: Risks associated with winter storms are a direct correlation to the strength of the storm and the region's ability to handle a storm. The risks include loss of life due to cold and disruption of transportation routes, loss of electricity for extended periods, and impact on agriculture.

Location and Extent - All of Monroe County is susceptible to a winter storms or freezes.

Probability of Future Occurrences - Due to a lack of data, average annual occurrences and damage estimates cannot be made. However, Monroe County does not have a considerable risk of a winter storm occurring and it has a high threat of a winter storm adversely affecting the area. This is a direct result to the area's ability to handle a severe winter storm. Although they are rare, Monroe County is susceptible to winter storms.

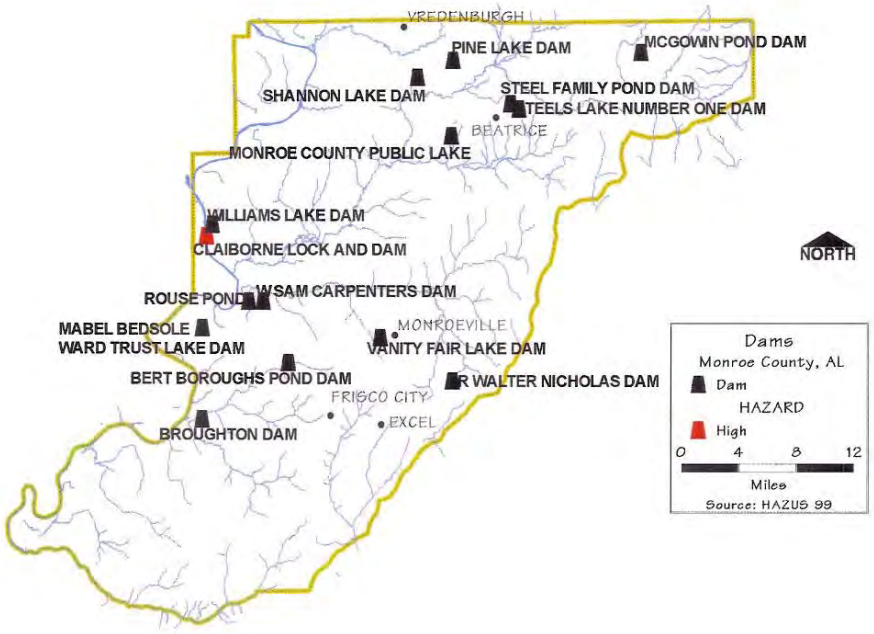
k. Levee/Dam Failures

Hazard Description – A dam is barriers constructed across a water course in order to store, control, or divert water. Dams are usually constructed of earth, rock, concrete, or mine tailings. The water impounded behind a dam is referred to as the reservoir and is measured in acre-feet, with one-afoot being the volume of water that covers one acre of land to a depth of one foot. Due to topography, even a small dam may have a reservoir containing many acre-feet of water. A dam failure is the collapse, breach or other failure of a dame that causes downstream flooding. Dam failures may result from natural events, human-caused events, or a combination thereof. Due to the lack of advance warning, failures resulting from natural events, such as hurricanes, earthquakes, or landslides, may be particularly severe. Prolonged rainfall that produces flooding is the most common cause of dame failure, according to FEMA.

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

Hazard History – No dam/levee failure events have ever been reported in Monroe County.

Community Impact – When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path. The area impacted by the water emitted by dame failure would encounter the same risks as those in a flood zone during periods of flooding. The area directly affected by the water released during a dam failure is not county wide. The only high risk dame is the Claiborne Lock and Dam on the Alabama River.



Map 9 – Dams in Monroe County

Probability of Future Occurrences - The risks associated with dam-levee failure are the same as those risks associated with flooding. Risks to Monroe County are minimal. The probability of future occurrences cannot be characterized on a countywide basis because of the lack of information available.

l. Landslides

Hazard Description - A "landslide" is the downward and outward movement of slopes. The terms refers various forming materials acting under the force of gravity. The term covers a broad category of events, including mudflows, mudslides, debris flows, rock falls, rockslides, debris avalanches, debris slides and earth flows. Landslides may consist of natural rock, soil, artificial fill, or combinations of these materials. Landslides are classified by type of movement, including; slides, flows, lateral spreads, falls and topples. A "landslide" is the downward and outward movement of slope - forming materials acting under the force of gravity. The term covers a broad category of events, including mudflows, mudslides, debris flows, rock falls, rockslides, debris avalanches, debris slides and earth flows. Landslides may consist of natural rock, soil, artificial fill, or combinations of these materials. Landslides are classified by type of movement, including; slides, flows, lateral spreads, falls and topples.

Almost any steep or rugged terrain is susceptible to landslide under the right conditions. The most hazardous areas are steep slopes on ridges, hill and mountains; incised stream channels; and slopes excavated for buildings and roads. Slid potentials are enhanced where slopes are destabilized by construction or river erosion. Road cut s and other altered ore excavated areas are particularly susceptible to landslides and debris flows. Rainfall and seismic shaking by earthquakes or blasting can trigger landslides.

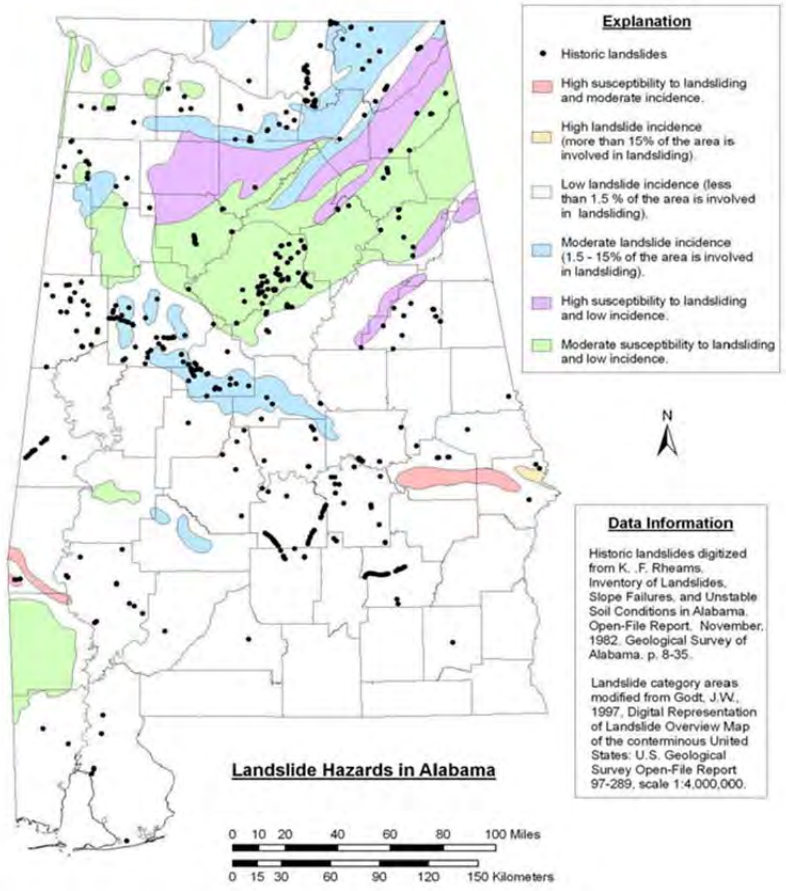
Debris flows (also referred to as mudslides) generally occur during intense rainfall on water saturated soils. They usually start on steep hillsides as soil slumps or slides that liquefy and accelerate to speeds as great as 35 miles per hour. Multiple debris flows may merge, gain volume and travel long distances from their source, making areas down slope particularly hazardous. Surface runoff channels along roadways and below culverts are common sites of debris flows and other landslides.

Hazard History - No instances of landslides were reported by the planning committee or revealed by an Internet search.

Community Impact - The effects of landslides are often misrepresented as being the result of the landslide's trigger event, such as a flood, earthquake, volcanic eruption, hurricane, or coastal storm. The impact from a landslide can include loss of life, damage to buildings, lost productivity, disruption in utilities and transportation systems, and reduced property values.

Location and Extent – Only one recorded landslide event has occurred in Monroe County. The northern area of the county lies in an area of moderate incidence, according to the Geological Survey of Alabama. This area is depicted on Map 10. The lack of landslide incidences in the county may be attributable to the lack of major development in this area. Also the steep slopes of the Red Hills areas in northern Monroe County could be susceptible landslides

Probability of Future Occurrences: The probability of future occurrences of landslides in Monroe County is extremely slight everywhere.



Map 10 – Statewide Landslide Incidence in and Susceptibility by County. Source: Geological Survey of Alabama

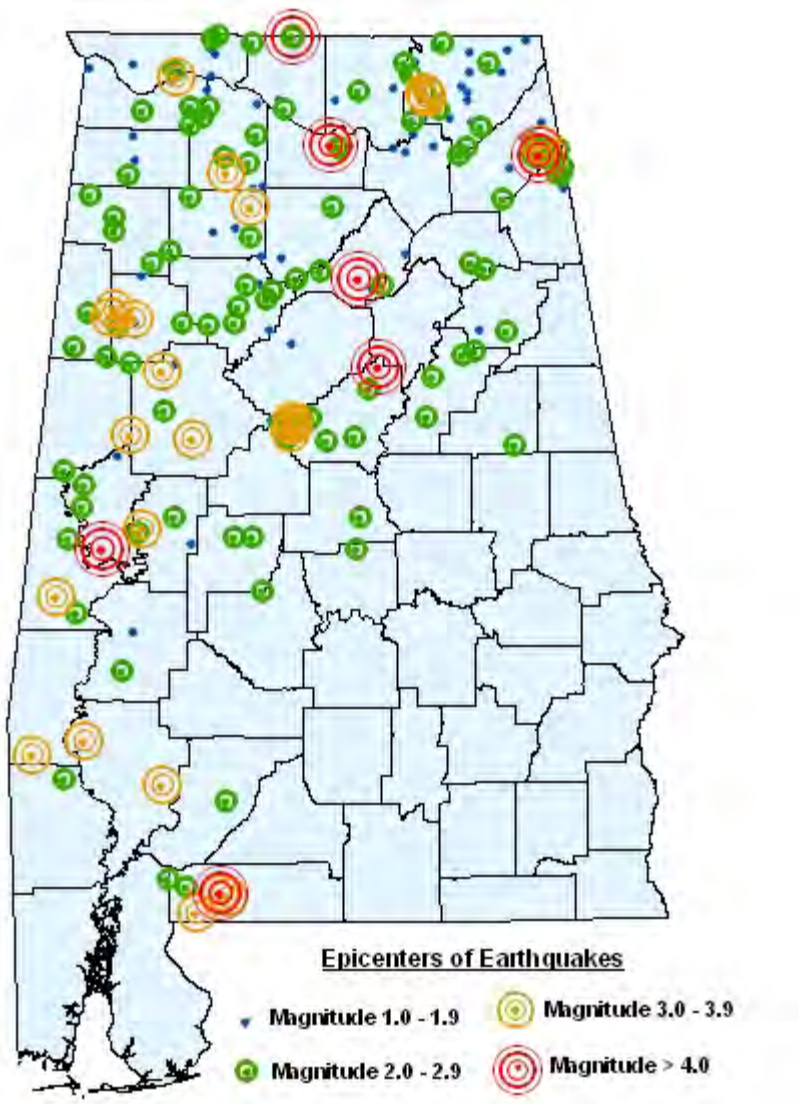
m. Earthquakes

Hazard Description - An earthquake is a sudden, rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. An earthquake is

"… a sudden motion or trembling caused by an abrupt release of accumulated strain in the tectonic plates that comprise the earth's crust". These rigid plates, known as tectonic plates, are some 5—60 miles in thickness and move slowly and continuously over the earth's interior. The plates meet along their edges were they move away, past or under each other at rates varying form less than a fraction of an inch up to five inches per year. While this sounds small, at a rate of two inches per year, a distance of 20 miles would be covered in approximately one million years.

The tectonic plates continually bump, slide, catch, and hold as they move past each other which causes stress to accumulate along faults. When this stress exceeds the elastic limit of the rock, an earthquake occurs, immediately causing sudden ground motion and seismic activity. Secondary hazards may also occur, such as surface faulting, sinkholes and landslides. While the majority of earthquake occur near the edges of the tectonic plates, eathquakes may also occur at the interior of plates.

Hazard History – The is only one recorded incident of an earthquake in Monroe County. Map 11 depicts historical earthquake occurences in Monroe County.

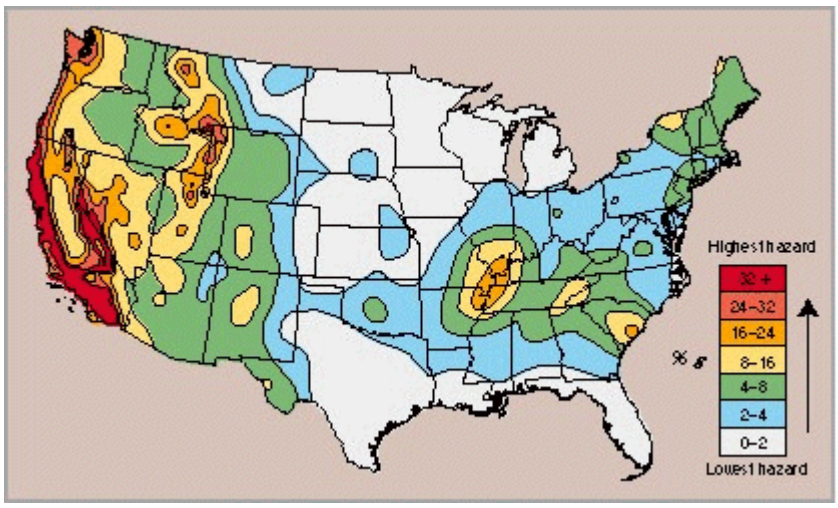


Map 11 – Historical Incidence of Earthquakes in Monroe County, Alabama
Source: Geological Survey of Alabama

Community Impact - The USGS has developed a methodology for identifying an area's vulnerability to the occurrence of an earthquake. Areas are identified by their relative seismic risk. Monroe County is located in an area with a probability of exceedence between 2% and 3% in 50 years. This is an area of slight risk as illustrated in Map 4-8.

Location and Extent - All of Monroe County is susceptible to an earthquake.

Probability of Future Occurrences - The risk of a significant, damage causing earthquake in the Monroe County is very small.



Map 12 – Probability of Incidences of Earthquakes.
Source: United States Geological Survey

n. Vulnerability Assessment and Identification of Assets

This section assesses vulnerability of types and numbers of existing buildings and critical facilities (including infrastructure) located within each identified hazard area. The only identified hazard, which is area specific within the county, is flooding. Consequently, all buildings and critical facilities are exposed to all remaining hazards. The building counts and values are taken from the HAZUS databases. These are not current counts, but data availability is limited. Dollar values are not adjusted to current values. Designation of a facility as critical is based on the HAZUS definitions, as follows:

- Essential Facilities. These facilities are critical to the health and welfare of the entire county population and are essential following hazard events, including emergency response facilities (police, fire, and emergency management), medical care facilities (hospitals and other care facilities), schools, and shelters for evacuation.

- Lifeline Utility Systems. These facilities are essential lifelines that include potable water, wastewater, natural gas, electric, and communications systems. HAZUS data is not available for this county.

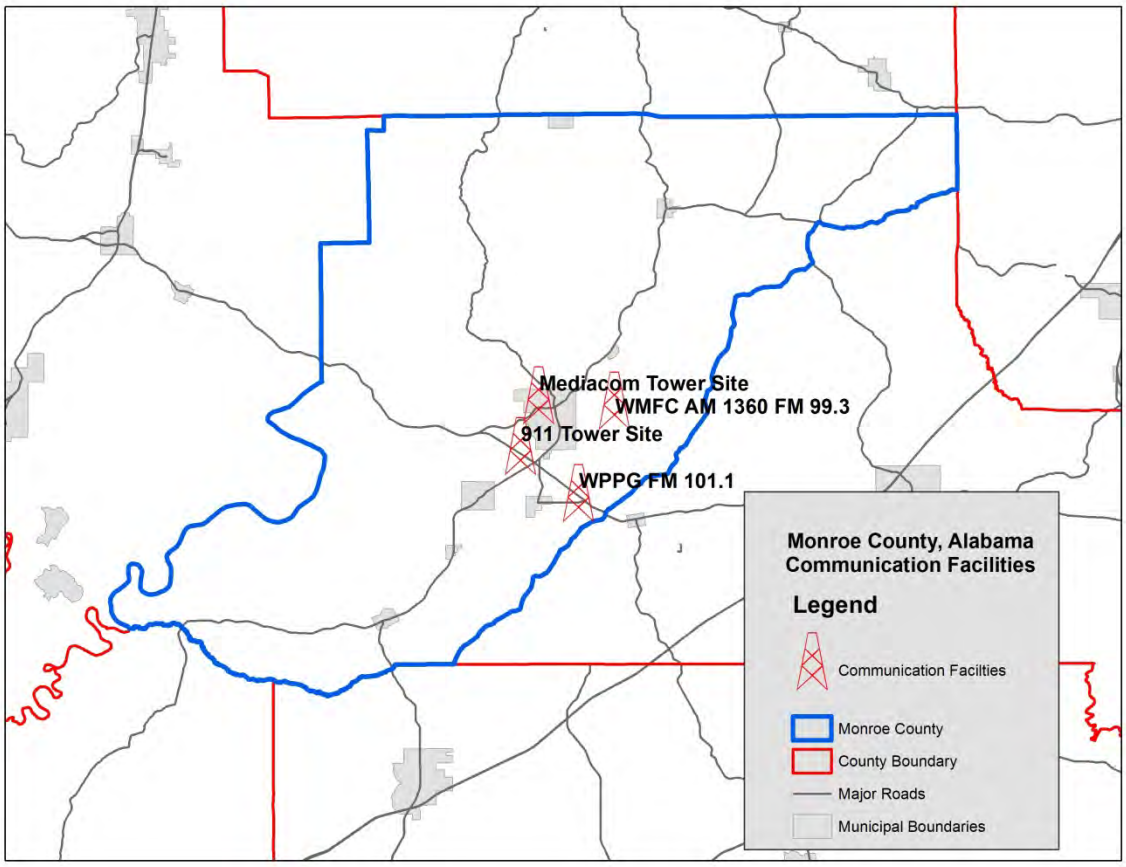
- Transportation Systems. These facilities include highways, bridges, railways, and waterways.
- High Potential Loss Facilities. These facilities include military installations and high potential loss dams.
- Hazardous Materials Facilities. These facilities may pose a threat if disrupted by natural hazards and include hazardous industrial chemicals, explosives, flammables, toxins, and radioactive materials.

i. Building Assets – Monroe County has over 8500 buildings valued at over $800 million. All of the buildings are at risk for natural hazards damages. According to HAZUS databases, there are a total of 9,373 buildings in Monroe County. The value of these structures is estimated to total almost $91,162,877.00.

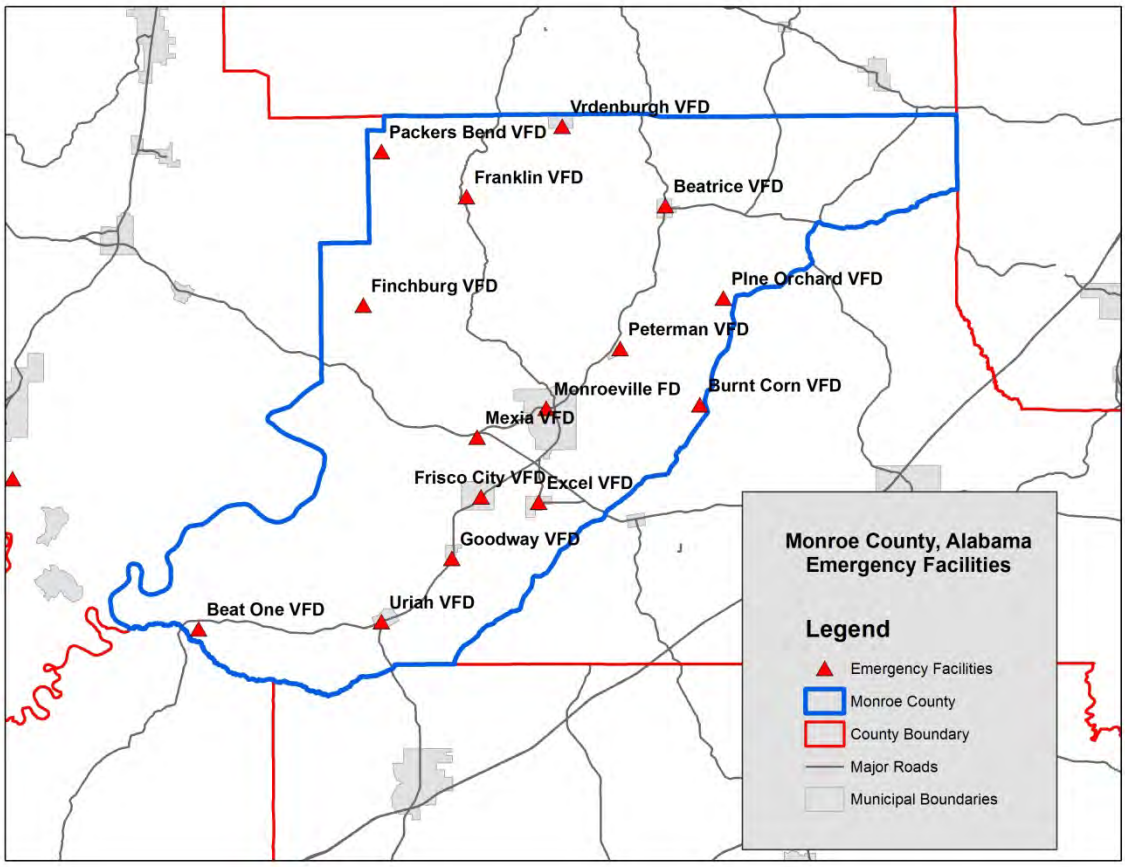
Number of Buildings by Type							
Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Total
9087	127	78	14	38	14	15	9373
Source: FEMA HAZUS and Monroe County Revenue Commission							

Value by Type of Building							
Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Total
$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00	$91,162,877.00
Source: FEMA HAZUS and Monroe County Revenue Commission							

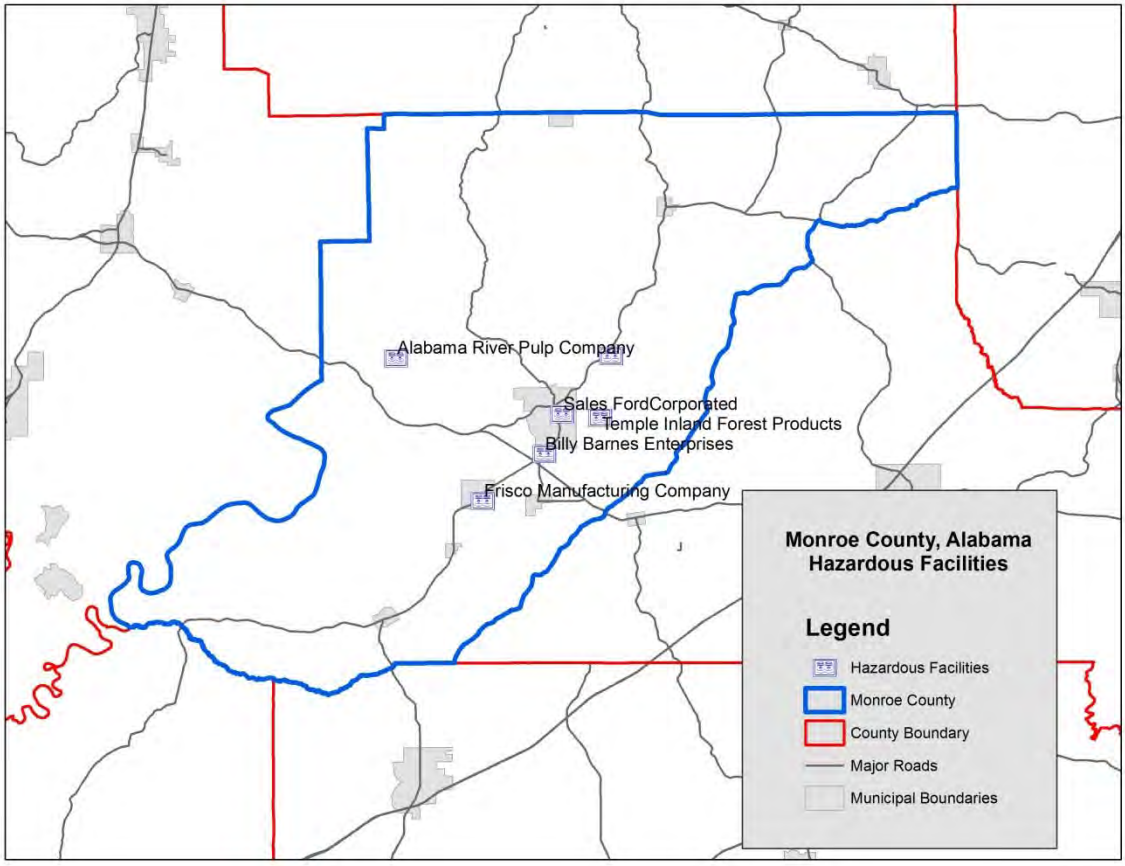
ii. Critical Facilities – The Hazard Mitigation Planning Committee updated this list of critical facilities in Monroe County included in the 2005 Hazard Mitigation Plan. The groups of critical facilities include communication facilities, emergency response facilities, hazardous material sites, medical care facilities, and schools. Other critical facilities identified were the Monroe County Ferry along with the Historic Monroe County Courthouse. Maps of each of these facilities are depicted in Maps 13-17.



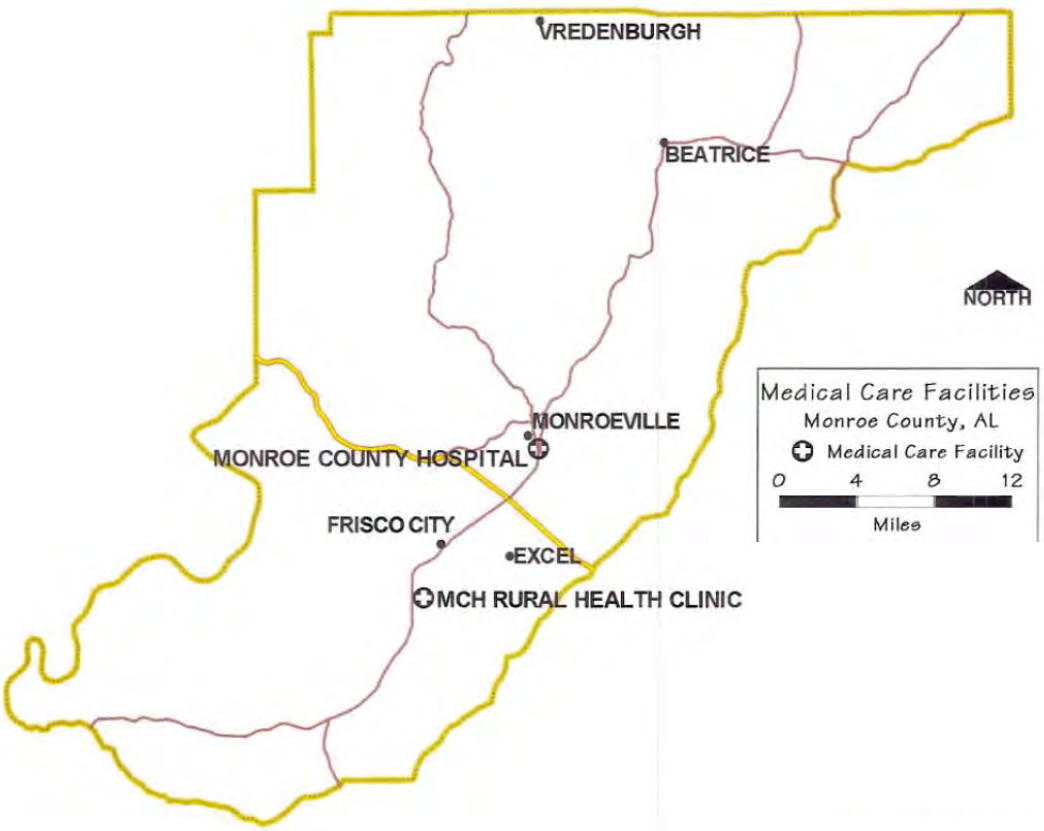
Map 13 – Monroe County Communication Facilities



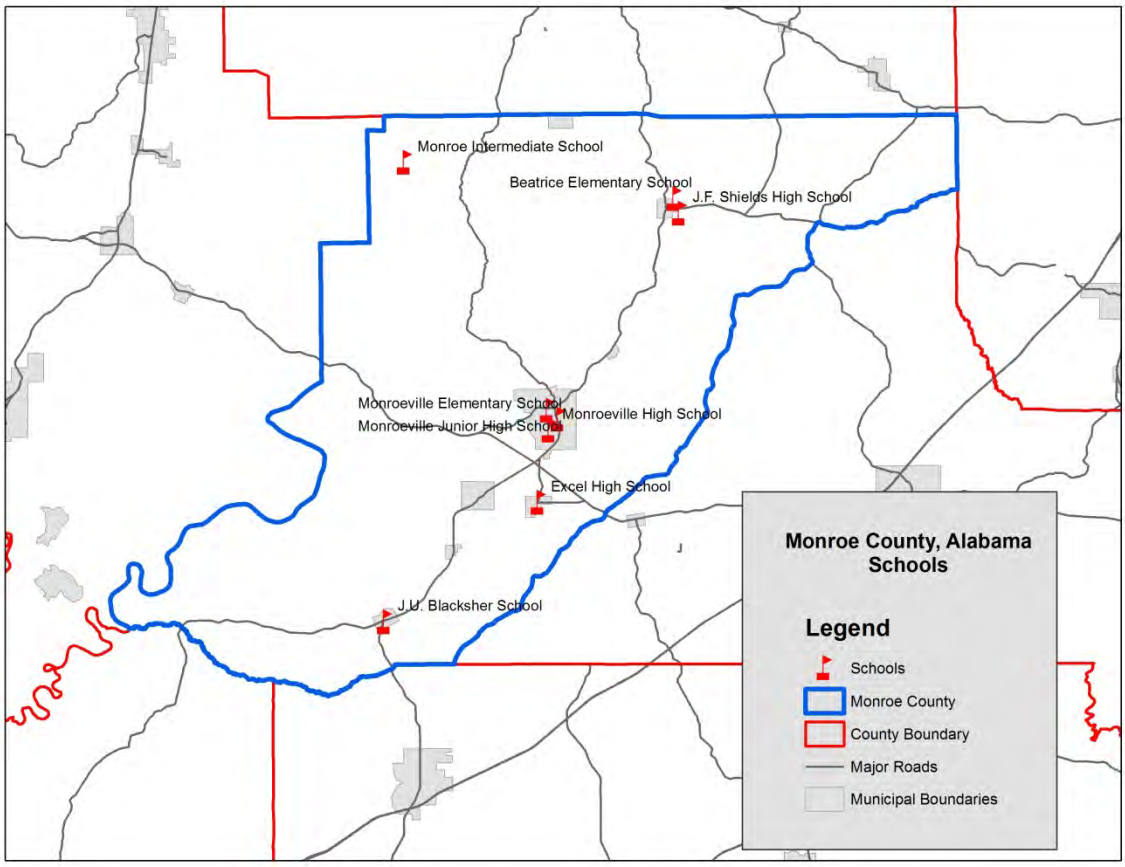
Map 14 – Monroe County Emergency Facilities



Map 15 – Monroe County Hazardous Materials



Map 16 – Monroe County Medical Facilities



Map 17 – Monroe County Schools

iii. Estimated Losses by Hazard – Table 13 list the population of each jurisdiction and the estimated number of people vulnerable to the hazard for each jurisdiction in Monroe County. Note it is estimated that 5% of the land area is in a flood zone in Monroe County. Therefore, it is assumed 5% of the population is vulnerable to flooding. Table 14 analyzes the number of building exposed to each hazard type and Table 15 lists the amount of value of property exposed to hazards. The methodology used to determine the value used data from the HAZUS database along the property assessments made available from the Monroe County Revenue Commission. Table 16 lists the number future buildings and Table 16 lists the value of future ;

Unincorporated Monroe County and Monroeville are the only jurisdictions that participate in the National Flood Insurance Program (NFIP), all the other jurisdictions (Beatrice, Frisco City, Excel and Vrdenburgh) are exempt. According to FEMA's Policy Statistics updated 1/31/2012, there have been 31 policies issued since 1978 for both Monroe County and Monroeville. The value of all the policies written in-force is $2,854,700 for Monroe County and $140,000 for the City of Monroeville. The in-force premiums are $17,242 for Monroe County and 274 for the City of Monroeville. There are no repetitive loss properties in Monroe County.

	Unincorporated Monroe County	Beatrice	Excel	Frisco City	Monroeville	Vrdenburgh
Hurricane/Tropical Storm	14089	301	723	1309	6319	327
Flood	704	15	36	65	316	16
Severe Storm	14089	301	723	1309	6319	327
Tornadoes	14089	301	723	1309	6319	327
Wildfire	14089	301	723	1309	6319	327
Drought/Heat Waves	14089	301	723	1309	6319	327
Winter Storms/Freezes	14089	301	723	1309	6319	327
Levee/Dam Failures	14089	301	723	1309	6319	327
Landslides	14089	301	723	1309	6319	327
Earthquakes	14089	301	723	1309	6319	327

Table 13. Population vulnerable to hazards in Monroe County, Alabama

Number of Buildings Exposed to Hazards							
	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education
Hurricane/Tropical Storm	9087	127	78	14	38	14	15
Flood	454	6	4	1	2	1	1
Severe Storm	9087	127	78	14	38	14	15
Tornadoes	9087	127	78	14	38	14	15
Wildfire	9087	127	78	14	38	14	15
Drought/Heat Waves	9087	127	78	14	38	14	15
Winter Storms/Freezes	9087	127	78	14	38	14	15
Levee/Dam Failures	9087	127	78	14	38	14	15
Landslides	9087	127	78	14	38	14	15
Earthquakes	9087	127	78	14	38	14	15

Table 14. Number of building exposed to hazards in Monroe County, Alabama. Source HAZUS database and Monroe County Commission.

Value of Property Exposed to Hazards							
	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education
Hurricane/Tropical Storm	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Flood	$3,925,600.00	$227,538.70	$171,282.80	$49,237.70	$162,937.25	$9,260.05	$12,287.35
Severe Storm	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Tornadoes	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Wildfire	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Drought/Heat Waves	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Winter Storms/Freezes	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Levee/Dam Failures	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Landslides	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Earthquakes	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00

Table 15 – Value of Property exposed to Hazards in Monroe County, Alabama (source HAZUS and Monroe County Commission (Note: There are no repetitive loss properties in Monroe County).

Number of Buildings Exposed to Hazards - Future							
	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education
Hurricane/Tropical Storm	9087	127	78	14	38	14	15
Flood	454	6	4	1	2	1	1
Severe Storm	9087	127	78	14	38	14	15
Tornadoes	9087	127	78	14	38	14	15
Wildfire	9087	127	78	14	38	14	15
Drought/Heat Waves	9087	127	78	14	38	14	15
Winter Storms/Freezes	9087	127	78	14	38	14	15
Levee/Dam Failures	9087	127	78	14	38	14	15
Landslides	9087	127	78	14	38	14	15
Earthquakes	9087	127	78	14	38	14	15

Table 16: Vulnerability of the types and number of future buildings, infrastructure, and critical facilities located in Hazard Areas (Note – this analysis assumes a 0% growth rate)

Value of Property Exposed to Hazards – Future Buildings							
	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education
Hurricane/Tropical Storm	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Flood	$3,925,600.00	$227,538.70	$171,282.80	$49,237.70	$162,937.25	$9,260.05	$12,287.35
Severe Storm	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Tornadoes	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Wildfire	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Drought/Heat Waves	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Winter Storms/Freezes	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Levee/Dam Failures	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Landslides	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00
Earthquakes	$78,512,000.00	$4,550,774.00	$3,425,656.00	$984,754.00	$3,258,745.00	$185,201.00	$245,747.00

Table 17 – Value of Future Property exposed to Hazards in Monroe County, Alabama (source HAZUS and Monroe County Commission (Note: There are no repetitive loss properties in Monroe County).

iv. Analysis of Development Trends – Development Trends, particularly population shifts and land use changes created by major economic development expansion and infrastructure improvements of countywide significance, are important considerations to effective mitigation planning. These trends must be continually monitored and analyzed to keep abreast of changing vulnerabilities of jurisdictions and the natural hazards. As growth and development patterns change over time, the risk to property damage and lives also change. This section examines the project growth trend and other impacts of countywide significance that are expected to affect the location and extent of natural hazard vulnerability overtime.

Monroe County is mostly rural with minor areas of development in Monroeville and Frisco City. This area has experienced very little growth over the past 20 years. There has been negative growth of industries and jobs. Specifically with the closing of most of the Vanity Fair mills. As shown in Table 4-19, Monroe County's population increased by 1.5% during the decade 1990-2000. Only the Town of Excel showed positive growth in population. Little population change in the county is forecast out to year 2025. New residential developments in Monroe County are minimal. However, growth and development could accelerate with the possible expansion of U.S. Highway 84 from two to four lanes. U.S. Highway 84 runs through Monroe County, and, with the expansion completed, would serve as a major east-west transportation route. In recent history, county initiatives have encouraged the growth of small businesses within Monroe County. Also, Monroe County heritage museums have advanced Monroe County's tourism industry.

v. Risk Assessment by Jurisdiction – Table 16 lists each jurisdiction in Monroe County ranked in terms of risk of natural hazards (1= highest risk, 1O=lowest risk). All jurisdictions are equally at risk for tornadoes, severe storms, earthquakes, wildfires, extreme cold, winter storms, drought and extreme heat. The jurisdictions have varying degrees of risk pertaining to flooding and landslides. Unincorporated Monroe County is most at risk for flooding and is the only jurisdiction with special flood hazard areas mapped. The risk associated with each of these hazards depends upon topography, geology and density of development.

	Unincorporated Monroe County	Beatrice	Excel	Frisco City	Monroeville	Vrdenburgh
Hurricane/Tropical Storm	1	1	1	1	1	1
Flood	2	n/a	n/a	n/a	2	2
Severe Storm	3	2	2	2	3	3
Tornadoes	4	3	3	3	4	4
Wildfire	5	4	4	4	5	5
Drought/Heat Waves	6	5	5	5	6	6
Winter Storms/Freezes	7	6	6	6	7	7
Levee/Dam Failures	8	7	7	7	8	8
Landslides	9	8	8	8	9	9
Earthquakes	10	9	9	9	10	10

Table 18 Multi-Jurisdictional Risk Assessment

o. What has changed in the Plan Update – the Risk Assessment used more available data available since 2005.

5. Mitigation Strategies

a. Purpose of Mitigation Goals Strategies - These mitigation strategies provide a blueprint for each participating jurisdiction to reduce the potential losses identified in the risk assessment through a comprehensive plan of goals, objectives, and policies. It guides the communities that have participated in its preparation through the Hazard Mitigation Planning Committee (HMPC). These communities have adopted this plan and committed their resources to achieve its goals.

b. Identification and Analysis of Mitigation Measures - The Hazard Mitigation Planning Committee guided the preparation of these strategies. The Committee first reviewed the risk assessment to determine the most critical hazard threats to each jurisdiction (see Chapter 4. Risk Assessment). Next, the Committee reviewed existing authorities, policies, programs, and resources through an exercise to rate the capabilities of each jurisdiction to implement mitigation measures. Finally, the HMPC analyzed a broad range of available mitigation measures. On this basis, the Committee evaluated the ability of each jurisdiction to expand on and improve these tools. The Committee recommends those measures that might best respond to the vulnerability concerns within the existing and potential capabilities of each jurisdiction.

c. Types of Mitigation Activities – The planning approach presented here follows the six categories of a comprehensive hazard mitigation program. These program categories have been developed by FEMA for managing a successful mitigation program and are used here as guidelines for identifying and selecting among alternative mitigation measures:

    1. Prevention. Adopting and administering ordinances, regulations, and programs that manage the development of land and buildings to minimize risks of loss due to natural hazards.
    2. Property Protection. Protecting structures and their occupants and contents from the damaging effects of natural hazard occurrences, including retrofitting existing structures to increase their resistance to damage and exposure of occupants to harm; relocating vulnerable structures and occupants from hazard locations; and conversion of

developed land to permanent open space through acquisition and demolition of existing structures.

3. Public Education and Outreach. Educating and informing the public about the risks of hazards and the techniques available to reduce threats to life and property.
4. Natural Resources Protection. Preserving and restoring the beneficial functions of the natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.
5. Emergency Services. Responding to and recovering from a natural hazard disaster.
6. Structural Projects. Engineering structural modifications to natural systems and public infrastructure to reduce the potentially damaging impacts of a hazard on a community.

d. Existing Hazard Mitigation Activities –This plan expands on and improves existing mitigation activities. To date, unincorporated Monroe County and Monroeville are the only jurisdictions that participate in the National Flood Insurance Program (NFIP) as shown in Table 17. The Town of Beatrice, Excel and Frisco City do not have any significant Special Flood Hazard Areas.

Community Name	Initial Identification Flood Hazard Boundary Map	Revisions	Effective Date FIRM	Revisions Date
Beatrice	n/a	n/a	n/a	n/a
Excel	n/a	n/a	n/a	n/a
Frisco City	n/a	n/a	n/a	n/a
Monroeville	08/18/1978	06/04/1990	2/4/2009	2/4/2009
Unincorporated Areas	08/18/1978	06/04/1990	2/4/2009	2/4/2009

The Monroe County Emergency Management Agency was established via a resolution of the Monroe County Commission. The AEMA was established through Section 4 of the Alabama Emergency Management Act of 1955 (Public Law 31-9), Act 47, June 1955. Section 10, Alabama Law, 1955 Act No. 47, directs the establishment of local organization for emergency management in accordance with the state emergency management plan and programs. The local organizations have the responsibility for coordinating the disaster preparedness,

mitigation, response and recovery efforts of local government. Under this legislation, each county is required to have an emergency management organization, either individual or jointly. Appropriate ordinance and/or resolution are required to establish each local organization and must provide for the organization, powers, duties, divisions, services and staff of the agency.

One of the most significant state enabling statutes related to hazard mitigation can be found in the Title 11, Chapter 52, Planning, Zoning, and Subdivision of the Code of Alabama. Section 11-52 et seq is the state planning enabling legislation for municipalities only. First enacted in 1935, the statue provides municipalities broad powers for comprehensive planning, capital improvements programming and the regulation of land use, development, and conservation of land areas through zoning ordinance and subdivision regulations. It permits municipalities to create planning commission to oversee planning and land use controls, and Boards of Adjustments to hear appeals. It is the basis for floodplain management regulations within all municipalities and provides additional powers to control the location and types of development activities that might be affected by other natural hazards, including landslides and land subsidence.

Unincorporated areas of the counties in Alabama are severely restricted by the lack of a state planning enabling statute. Only three counties statewide – Baldwin, Jefferson and parts of Shelby County – are permitted to establish zoning ordinance by special acts adopted by Title 11, Chapter 24 of the Code of Alabama. County commissions are permitted to regulate the subdivision of land and the construction of streets and utilities with the advice of an advisory board. Municipalities may enforce subdivision regulations with its police jurisdiction which can extend two miles beyond the municipal boundaries within unincorporated areas of a county. Code of Alabama, Title 11, Chapter 19 Sections 11-19-1 through 11-19-24, entitled the Comprehensive Land Use Management Act was enacted to prevent economic and human loss in flood-prone areas and permit counties to manage floodplain development within unincorporated areas. This act provides the established county commissions the authority to create a comprehensive land-use management program floodplain management, in accordance the NFIP criteria. As a result, unincorporated communities are eligible for flood insurance through the NFIP. This program helps mitigate damages cause by floods by controlling land use and development and improve the long-range management of flood prone areas. The statue authorizes each county commission to adopt floodplain management ordinance for unincorporated areas. County Planning Commissions are granted broad authority to control development in flood prone zone by adopting ordinances and Flood Insurance Rate Maps that delineate the various flood zones controlled by the adopted ordinances. Each

county must appoint and administrator of the program and provide for a Board of Adjustment to hear appeals to the ordinance requirements.

e. Mitigation Issues and Opportunities – The policies of this plan respond to the mitigation issues and opportunities presented in this section. These are derived from the findings of the risk assessment and capability assessment and discussions with members of the HMPC.

Prevention

- Tornadoes, severe storms and hurricanes are the most threatening hazards to Monroe County communities.
- No Monroe County municipalities practice comprehensive planning.
- The county expects a slight population increase of 1.1% out to year 2025.
- A large number of areas depicted on the Flood Insurance Rate Maps are designated "Approximate" zones where no detailed studies and flood elevation data exist.
- Unincorporated Monroe County and Monroeville are the only jurisdictions that participate in the NFIP.
- The municipalities of Frisco City, Excel, Beatrice and Vredenburgh do not participate in the NFIP.

Property Protection

- Standard homeowner and business insurance policies do not cover flood damages.
- Many older homes and buildings located in flood plains are not protected from flooding.

Public Education and Outreach

- Real estate agents and property owners have a continuing need for flood map information.
- The public is generally unaware of risks associated with hazards and the mitigation measures available for property protection.
- Local libraries are available to serve as repositories for information on hazards and methods of protection.
- Technical assistance materials are available through FEMA to assist property owners on alternative property protection measures.
- School environmental education programs provide excellent opportunities for public education on hazard mitigation alternatives.
- A multitude of public outreach opportunities and resources are available.

- Public information activities are among the least expensive mitigation measures but often the most effective.

Natural Resources Protection

- Stream and river banks and riparian zones help manage floods and filter runoff.
- Accidental or intentional dumping of household and commercial, such as household garbage, tires, shopping carts, and landscape debris, can obstruct flows.
- Storm-damaged trees - resulting from hurricanes, tornadoes, severe thunderstorms, and wind storms- can clog streets and access during periods of disaster response, obstruct the natural discharge of flood waters, disrupt utility services, increase debris removal, damage property, and increase disaster recovery costs.

Emergency Services

1. Weather radios in homes and businesses provide inexpensive means for advance warning.
2. Further, an extensive outdoor siren system should be installed in Monroe County due the high frequency and intensity of tornadoes.

Structural Projects

1. Regular maintenance of streams and drainage ways is critical to their effective operation for storm water discharge.

f. Mitigation Policies Plan

This section presents the long-term, comprehensive plan for mitigation of natural hazards. Each of these mitigation actions will be carried out by the Monroe County Emergency Management in coordination with local, state, federal, and other agencies. Priority mitigation projects carried over into the action program should only be implemented if the benefits are maximized and outweigh the associated costs of the proposed projects. The goals of this mitigation policies plan apply to all jurisdictions within the county. The communities' long-range vision for disaster resistance and the mission of the HMPC are restated here for reference.

Over the last 6 years, Monroe County has had success in implementing actions form the 2005 plan. Some of the actions have been completed; however most are processes and have not yet been completed. Also, some mitigation measures have been deleted from the plan as they were determined by the Hazard

Mitigation Planning Committee to be no longer relevant or current or have been completed.

Completed Mitigation Strategies from 2005 Plan

- Seek a countywide update of all FIRMs in digital format, with an emphasis on detailed studies of developed and developing areas with elevations provided and floodways delineated. Note FEMA published new FIRM maps for Monroe County on 2/4/2009

Mitigation Strategies deleted from 2012 Plan:

- Distribute FEMA Publication 320- Taking Shelter From the Storm: Building a Safe Room in Your House- to local homebuilders – the committee deleted this mitigation strategy as social media and internet based communication is more effective in 2012.
- Distribute hazard mitigation brochures to area schools for distribution to students– the committee deleted this mitigation strategy as social media and internet based communication is more effective in 2012.
- Obtain free publications from FEMA, NWS, USGS, and other federal and state agencies and deposit these materials with local libraries– the committee deleted this mitigation strategy as social media and internet based communication is more effective in 2012.
- Promote the purchase of flood insurance coverage by property owners and renters in high-risk flooding – the committee deleted this mitigation strategy as there are very few homes vulnerable to flooding in Monroe County.
- Seek funding sources, such as Community Development Block Grant funds, to assist low income home owners with building retrofits to protect against flood damage – The committee deleted this mitigation measure because CDBG funds are scarce and do not prioritize these types of projects.
- Promote mitigation and severe weather awareness, through an annual severe weather awareness event. – The committee deleted this mitigation strategy because they opted for internet based and social media to best communicate weather safety to the County's residents.

The following table is a listing of new and/or continued mitigation measures adopted for each jurisdiction.

i. Mitigation Measures for Unincorporated Monroe County (New and Continued from 2005 Plan)

Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	Responsible Department	Existing Potential Resources	Timeframe
Goal: Maintain a comprehensive database of hazard locations, socio economic data, infrastructure, and critical facilities inventories								
1	Prevention	All	Maintain a centralized countywide natural hazards and risk assessment database in GIS that is accessible to all personnel including flood zones, geohazards, major drainage structures, dams/levees; tornado tracks,	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	Virtual Alabama, GIS Data, HMGP	Ongoing
Goal: Manage the development of land and buildings to minimize the risks of loss due to natural hazards								
2	Prevention	Flood	Effectively administer and enforce local floodplain management regulations	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	FEMA flood maps, HMGP, ADECA	Ongoing
3	Prevention	Flood	Train local floodplain managers through programs offered at the State and Federal level.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing

4	Prevention	All	Continue to participate in the NFIP and participate in the future even if not a currently enrolled.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
5	Prevention	All	Maintain a library of technical assistance and guidance materials for local floodplain managers and use Monroe County EMA website for implementation	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
6	Prevention	All	Promote adoption of uniform flood hazard prevention ordinance among all of the NFIP communities in Monroe County.	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	HMGP and ADECA	Ongoing
7	Prevention	All	Acquire GIS software for marinating risk assessment data	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing
8	Prevention	High	Prepare and adopt a comprehensive plan	HMGP grants, General Fund, other grant funding	Low	Monroe County EMA	HMGP and ADECA	Ongoing
9	Prevention	High	Require the construction of Safe Rooms in new public buildings, such as new	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

			schools, libraries, community centers and other public buildings when feasible					
10	Prevention	All	Construct free-standing public Safe Rooms in existing vulnerable locations	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP ADECA	Ongoing
11	Prevention	All	Apply for funding to update/revise mitigation plan when needed	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
12	Prevention	All	Conduct special studies as needed to identify hazard risks and mitigation measures	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
Goal: Protect structures and their occupants and contents from damaging effects of natural hazards								
13	Property Protection	All	Encourage retrofits of older homes constructed before the enactment of floodplain regulations	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
14	Property Protection	All	Maintain insurance riders on existing properties	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
15	Property Protection	All	Provide back-up power for critical	HMGP grants, General Fund,	High	All jurisdictions	HMGP	Ongoing

			facilities and fire stations	other grant funding				
16	Property Protection	All	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
17	Property Protection	All	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
18	Property Protection	All	Retrofit public schools with community Safe Rooms.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
19	Property Protection	All	Increase access to Flood Insurance Rate Maps.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
20	Property	All	Promote the purchase	HMGP grants,	Medium	All	HMGP	Ongoing

	Protection		of flood insurance coverage by property owners and renters in high-risk flooding areas.	General Fund, other grant funding		jurisdictions		
21	Property Protection	All	Continue to send law enforcement and fire personnel to emergency response training	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
22	Property Protection	Fire	Install water infrastructure and Fire hydrants in rural areas	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
23	Property Protection	All	Encourage the construction of safe rooms in new and existing construction.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Education and inform the public about the risk of hazards and the techniques available to reduce threats to life and property.								
24	Public Education and Outreach	All	Maintain appropriate media relationships to ensure the public is informed of hazard threats and means to mitigate property damages and loss of life.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing

25	Public Education and Outreach	All	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
26	Public Education and Outreach	All	Conduct regular public meetings of hazards and mitigation measures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing
Goal: Preserve and restore the beneficial functions of natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.								
27	Natural Resource Protection	All	Maintain a healthy forest that can help mitigation the damaging impacts of flooding, erosion, landslides, and wild fires within urban and rural areas	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
28	Natural Resource Protection	All	Maintain a healthy forest that can help mitigate the damaging	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing

			impacts of flooding, erosion, landslides, and wild fires within urban areas.					
29	Natural Resource Protection	All	Seek technical assistance through the Alabama Cooperative Extension System and/or the Alabama Forestry Commission with Best Management Practices (BMPs) for channel and drainage system maintenance.	HMGP grants, General Fund, other grant	Medium	All jurisdictions	HMGP	Ongoing
30	Natural Resource Protection	All	Enact and enforce dumping regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
31	Natural Resource Protection	All	Enact and enforce erosion and sedimentation control regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
32	Natural Resource Protection	All	Seek technical assistance through hthe Alabama Cooperative Extension System with Best Management Practices (BMP) for channel and drainage	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing

			system maintenance.					
33	Natural Resource Protection	All	Encourage land acquisition programs to acquire habitat throughout Monroe County	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Apply engineered structural modifications to natural systems and public infrastructure to reduce potentially damaging impacts of hazards, where feasible, cost effective, and environmentally suitable								
34	Structural Projects	All	Improve maintenance programs for streams and drainage ways	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
35	Structural Projects	All	Implement drainage improvement in watersheds throughout Monroe County	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
36	Structural Projects	All	Continue to clear debris from roads and drainage ways		High	All jurisdictions	HMGP	Ongoing
37	Structural Projects	All	Continue to improve and maintain county road system	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
38	Structural Projects	All	Prepare and implement standard operation procedures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing

			for drainage system maintenance	funding				
Goal: Improve the Efficiency, timing, and effectiveness of response and recovery for natural hazard disasters								
39	Emergency Services	All	Improve public warning systems	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
40	Emergency Services	All	Improve public access to weather alerts	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
41	Emergency Services	All	Use social media to provide information about the public about dangerous weather	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
42	Emergency Services		Purchase emergency generators for post-disaster mitigation as needed. In particular for the Volunteer Fire Departments, Monroe County Courthouse, and all water and sewer facilities throughout Monroe County.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
43	Emergency Services		Install an automated weather monitoring system that transmit	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing

			data to the County EMA and the NWS, including all-weather stations, precipitation gauges, wind gauges, and temperature gauges	funding				
44	Emergency Services	All	Promote the use of weather radios in households and businesses.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
45	Emergency Services All	All	Upgrade Critical Communication Infrastructure	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

ii. Town of Beatrice Mitigation Measures (New and Continued from 2005 Plan)

Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	Responsible Department	Existing Potential Resources	Timeframe
Goal: Maintain a comprehensive database of hazard locations, socio economic data, infrastructure, and critical facilities inventories								
1	Prevention	All	Maintain a centralized countywide natural hazards and risk assessment database in GIS that is accessible to all personnel including flood zones, geohazards, major drainage structures, dams/levees; tornado tracks,	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	Virtual Alabama, GIS Data, HMGP	Ongoing
Goal: Manage the development of land and buildings to minimize the risks of loss due to natural hazards								
2	Prevention	Flood	Effectively administer and enforce local floodplain management regulations	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	FEMA flood maps, HMGP, ADECA	Ongoing
3	Prevention	Flood	Train local floodplain managers through programs offered at the State and Federal level.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing

4	Prevention	All	Continue to participate in the NFIP and participate in the future even if not a currently enrolled.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
5	Prevention	All	Maintain a library of technical assistance and guidance materials for local floodplain managers and use Monroe County EMA website for implementation	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
6	Prevention	All	Promote adoption of uniform flood hazard prevention ordinance among all of the NFIP communities in Monroe County.	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	HMGP and ADECA	Ongoing
7	Prevention	All	Acquire GIS software for marinating risk assessment data	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing
8	Prevention	High	Prepare and adopt a comprehensive plan	HMGP grants, General Fund, other grant funding	Low	Monroe County EMA	HMGP and ADECA	Ongoing
9	Prevention	High	Require the construction of Safe Rooms in new public buildings, such as new	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

			schools, libraries, community centers and other public buildings when feasible					
10	Prevention	All	Construct free-standing public Safe Rooms in existing vulnerable locations	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP ADECA	Ongoing
11	Prevention	All	Apply for funding to update/revise mitigation plan when needed	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
12	Prevention	All	Conduct special studies as needed to identify hazard risks and mitigation measures	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
Goal: Protect structures and their occupants and contents from damaging effects of natural hazards								
13	Property Protection	All	Encourage retrofits of older homes constructed before the enactment of floodplain regulations	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
14	Property Protection	All	Maintain insurance riders on existing properties	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
15	Property Protection	All	Provide back-up power for critical	HMGP grants, General Fund,	High	All jurisdictions	HMGP	Ongoing

			facilities and fire stations	other grant funding				
16	Property Protection	All	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
17	Property Protection	All	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
18	Property Protection	All	Retrofit public schools with community Safe Rooms.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
19	Property Protection	All	Increase access to Flood Insurance Rate Maps.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
20	Property	All	Promote the purchase	HMGP grants,	Medium	All	HMGP	Ongoing

	Protection		of flood insurance coverage by property owners and renters in high-risk flooding areas.	General Fund, other grant funding		jurisdictions		
21	Property Protection	All	Continue to send law enforcement and fire personnel to emergency response training	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
22	Property Protection	Fire	Install water infrastructure and Fire hydrants in rural areas	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
23	Property Protection	All	Encourage the construction of safe rooms in new and existing construction.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Education and inform the public about the risk of hazards and the techniques available to reduce threats to life and property.								
24	Public Education and Outreach	All	Maintain appropriate media relationships to ensure the public is informed of hazard threats and means to mitigate property damages and loss of life.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing

25	Public Education and Outreach	All	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
26	Public Education and Outreach	All	Conduct regular public meetings of hazards and mitigation measures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing
Goal: Preserve and restore the beneficial functions of natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.								
27	Natural Resource Protection	All	Maintain a healthy forest that can help mitigation the damaging impacts of flooding, erosion, landslides, and wild fires within urban and rural areas	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
28	Natural Resource Protection	All	Maintain a healthy forest that can help mitigate the damaging	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing

			impacts of flooding, erosion, landslides, and wild fires within urban areas.					
29	Natural Resource Protection	All	Seek technical assistance through the Alabama Cooperative Extension System and/or the Alabama Forestry Commission with Best Management Practices (BMPs) for channel and drainage system maintenance.	HMGP grants, General Fund, other grant	Medium	All jurisdictions	HMGP	Ongoing
30	Natural Resource Protection	All	Enact and enforce dumping regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
31	Natural Resource Protection	All	Enact and enforce erosion and sedimentation control regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
32	Natural Resource Protection	All	Seek technical assistance through hthe Alabama Cooperative Extension System with Best Management Practices (BMP) for channel and drainage	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing

			system maintenance.					
33	Natural Resource Protection	All	Encourage land acquisition programs to acquire habitat throughout Monroe County	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Apply engineered structural modifications to natural systems and public infrastructure to reduce potentially damaging impacts of hazards, where feasible, cost effective, and environmentally suitable								
34	Structural Projects	All	Improve maintenance programs for streams and drainage ways	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
35	Structural Projects	All	Implement drainage improvement in watersheds throughout Monroe County	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
36	Structural Projects	All	Continue to clear debris from roads and drainage ways		High	All jurisdictions	HMGP	Ongoing
37	Structural Projects	All	Continue to improve and maintain county road system	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
38	Structural Projects	All	Prepare and implement standard operation procedures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing

			for drainage system maintenance	funding				
Goal: Improve the Efficiency, timing, and effectiveness of response and recovery for natural hazard disasters								
39	Emergency Services	All	Improve public warning systems	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
40	Emergency Services	All	Improve public access to weather alerts	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
41	Emergency Services	All	Use social media to provide information about the public about dangerous weather	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
42	Emergency Services		Purchase emergency generators for post-disaster mitigation as needed. In particular for the Volunteer Fire Departments, Monroe County Courthouse, and all water and sewer facilities throughout Monroe County.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
43	Emergency Services		Install an automated weather monitoring system that transmit	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing

			data to the County EMA and the NWS, including all-weather stations, precipitation gauges, wind gauges, and temperature gauges	funding				
44	Emergency Services	All	Promote the use of weather radios in households and businesses.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
45	Emergency Services All	All	Upgrade Critical Communication Infrastructure	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

iii. Town of Excel Mitigation Measures (New and Continued from 2005 Plan)

Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	Responsible Department	Existing Potential Resources	Timeframe
Goal: Maintain a comprehensive database of hazard locations, socio economic data, infrastructure, and critical facilities inventories								
1	Prevention	All	Maintain a centralized countywide natural hazards and risk assessment database in GIS that is accessible to all personnel including flood zones, geohazards, major drainage structures, dams/levees; tornado tracks,	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	Virtual Alabama, GIS Data, HMGP	Ongoing
Goal: Manage the development of land and buildings to minimize the risks of loss due to natural hazards								
2	Prevention	Flood	Effectively administer and enforce local floodplain management regulations	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	FEMA flood maps, HMGP, ADECA	Ongoing
3	Prevention	Flood	Train local floodplain managers through programs offered at the State and Federal	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing

			level.					
4	Prevention	All	Continue to participate in the NFIP and participate in the future even if not a currently enrolled.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
5	Prevention	All	Maintain a library of technical assistance and guidance materials for local floodplain managers and use Monroe County EMA website for implementation	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
6	Prevention	All	Promote adoption of uniform flood hazard prevention ordinance among all of the NFIP communities in Monroe County.	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	HMGP and ADECA	Ongoing
7	Prevention	All	Acquire GIS software for marinating risk assessment data	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing
8	Prevention	High	Prepare and adopt a comprehensive plan	HMGP grants, General Fund, other grant funding	Low	Monroe County EMA	HMGP and ADECA	Ongoing
9	Prevention	High	Require the construction of Safe Rooms in new public	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing

			buildings, such as new schools, libraries, community centers and other public buildings when feasible	funding				
10	Prevention	All	Construct free-standing public Safe Rooms in existing vulnerable locations	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP ADECA	Ongoing
11	Prevention	All	Apply for funding to update/revise mitigation plan when needed	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
12	Prevention	All	Conduct special studies as needed to identify hazard risks and mitigation measures	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
Goal: Protect structures and their occupants and contents from damaging effects of natural hazards								
13	Property Protection	All	Encourage retrofits of older homes constructed before the enactment of floodplain regulations	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
14	Property Protection	All	Maintain insurance riders on existing properties	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
15	Property	All	Provide back-up	HMGP grants,	High	All	HMGP	Ongoing

	Protection		power for critical facilities and fire stations	General Fund, other grant funding		jurisdictions		
16	Property Protection	All	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
17	Property Protection	All	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
18	Property Protection	All	Retrofit public schools with community Safe Rooms.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
19	Property Protection	All	Increase access to Flood Insurance Rate Maps.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

20	Property Protection	All	Promote the purchase of flood insurance coverage by property owners and renters in high-risk flooding areas.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
21	Property Protection	All	Continue to send law enforcement and fire personnel to emergency response training	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
22	Property Protection	Fire	Install water infrastructure and Fire hydrants in rural areas	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
23	Property Protection	All	Encourage the construction of safe rooms in new and existing construction.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Education and inform the public about the risk of hazards and the techniques available to reduce threats to life and property.								
24	Public Education and Outreach	All	Maintain appropriate media relationships to ensure the public is informed of hazard threats and means to mitigate property damages and loss of	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing

			life.					
25	Public Education and Outreach	All	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
26	Public Education and Outreach	All	Conduct regular public meetings of hazards and mitigation measures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing
Goal: Preserve and restore the beneficial functions of natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.								
27	Natural Resource Protection	All	Maintain a healthy forest that can help mitigation the damaging impacts of flooding, erosion, landslides, and wild fires within urban and rural areas	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
28	Natural Resource	All	Maintain a healthy forest that can help	HMGP grants, General Fund,	Low	All jurisdictions	HMGP	Ongoing

	Protection		mitigate the damaging impacts of flooding, erosion, landslides, and wild fires within urban areas.	other grant				
29	Natural Resource Protection	All	Seek technical assistance through the Alabama Cooperative Extension System and/or the Alabama Forestry Commission with Best Management Practices (BMPs) for channel and drainage system maintenance.	HMGP grants, General Fund, other grant	Medium	All jurisdictions	HMGP	Ongoing
30	Natural Resource Protection	All	Enact and enforce dumping regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
31	Natural Resource Protection	All	Enact and enforce erosion and sedimentation control regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
32	Natural Resource Protection	All	Seek technical assistance through hthe Alabama Cooperative Extension System with Best Management Practices (BMP) for	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing

			channel and drainage system maintenance.					
33	Natural Resource Protection	All	Encourage land acquisition programs to acquire habitat throughout Monroe County	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Apply engineered structural modifications to natural systems and public infrastructure to reduce potentially damaging impacts of hazards, where feasible, cost effective, and environmentally suitable								
34	Structural Projects	All	Improve maintenance programs for streams and drainage ways	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
35	Structural Projects	All	Implement drainage improvement in watersheds throughout Monroe County	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
36	Structural Projects	All	Continue to clear debris from roads and drainage ways		High	All jurisdictions	HMGP	Ongoing
37	Structural Projects	All	Continue to improve and maintain county road system	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
38	Structural Projects	All	Prepare and implement standard	HMGP grants, General Fund,	Low	All jurisdictions	HMGP	Ongoing

			operation procedures for drainage system maintenance	other grant funding				
Goal: Improve the Efficiency, timing, and effectiveness of response and recovery for natural hazard disasters								
39	Emergency Services	All	Improve public warning systems	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
40	Emergency Services	All	Improve public access to weather alerts	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
41	Emergency Services	All	Use social media to provide information about the public about dangerous weather	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
42	Emergency Services		Purchase emergency generators for post-disaster mitigation as needed. In particular for the Volunteer Fire Departments, Monroe County Courthouse, and all water and sewer facilities throughout Monroe County.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
43	Emergency Services		Install an automated weather monitoring	HMGP grants, General Fund,	High	All jurisdictions	HMGP	Ongoing

			system that transmit data to the County EMA and the NWS, including all-weather stations, precipitation gauges, wind gauges, and temperature gauges	other grant funding				
44	Emergency Services	All	Promote the use of weather radios in households and businesses.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
45	Emergency Services All	All	Upgrade Critical Communication Infrastructure	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

iv. Town of Frisco City Mitigation Measures (New and Continued from 2005 Plan)

Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	Responsible Department	Existing Potential Resources	Timeframe
Goal: Maintain a comprehensive database of hazard locations, socio economic data, infrastructure, and critical facilities inventories								
1	Prevention	All	Maintain a centralized countywide natural hazards and risk assessment database in GIS that is accessible to all personnel including flood zones, geohazards, major drainage structures, dams/levees; tornado tracks,	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	Virtual Alabama, GIS Data, HMGP	Ongoing
Goal: Manage the development of land and buildings to minimize the risks of loss due to natural hazards								
2	Prevention	Flood	Effectively administer and enforce local floodplain management regulations	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	FEMA flood maps, HMGP, ADECA	Ongoing
3	Prevention	Flood	Train local floodplain managers through programs offered at the State and Federal level.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing
4	Prevention	All	Continue to	HMGP grants,	High	Monroe	HMGP and	Ongoing

			participate in the NFIP and participate in the future even if not a currently enrolled.	General Fund, other grant funding		County EMA and City of Monroeville	ADECA	
5	Prevention	All	Maintain a library of technical assistance and guidance materials for local floodplain managers and use Monroe County EMA website for implementation	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
6	Prevention	All	Promote adoption of uniform flood hazard prevention ordinance among all of the NFIP communities in Monroe County.	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	HMGP and ADECA	Ongoing
7	Prevention	All	Acquire GIS software for marinating risk assessment data	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing
8	Prevention	High	Prepare and adopt a comprehensive plan	HMGP grants, General Fund, other grant funding	Low	Monroe County EMA	HMGP and ADECA	Ongoing
9	Prevention	High	Require the construction of Safe Rooms in new public buildings, such as new schools, libraries,	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

			community centers and other public buildings when feasible					
10	Prevention	All	Construct free-standing public Safe Rooms in existing vulnerable locations	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP ADECA	Ongoing
11	Prevention	All	Apply for funding to update/revise mitigation plan when needed	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
12	Prevention	All	Conduct special studies as needed to identify hazard risks and mitigation measures	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
Goal: Protect structures and their occupants and contents from damaging effects of natural hazards								
13	Property Protection	All	Encourage retrofits of older homes constructed before the enactment of floodplain regulations	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
14	Property Protection	All	Maintain insurance riders on existing properties	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
15	Property Protection	All	Provide back-up power for critical facilities and fire	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing

			stations	funding				
16	Property Protection	All	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
17	Property Protection	All	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
18	Property Protection	All	Retrofit public schools with community Safe Rooms.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
19	Property Protection	All	Increase access to Flood Insurance Rate Maps.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
20	Property Protection	All	Promote the purchase of flood insurance	HMGP grants, General Fund,	Medium	All jurisdictions	HMGP	Ongoing

			coverage by property owners and renters in high-risk flooding areas.	other grant funding				
21	Property Protection	All	Continue to send law enforcement and fire personnel to emergency response training	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
22	Property Protection	Fire	Install water infrastructure and Fire hydrants in rural areas	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
23	Property Protection	All	Encourage the construction of safe rooms in new and existing construction.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Education and inform the public about the risk of hazards and the techniques available to reduce threats to life and property.								
24	Public Education and Outreach	All	Maintain appropriate media relationships to ensure the public is informed of hazard threats and means to mitigate property damages and loss of life.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
25	Public	All	Publicize the	HMGP grants,	Medium	All	HMGP	Ongoing

	Education and Outreach		availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.	General Fund, other grant funding		jurisdictions		
26	Public Education and Outreach	All	Conduct regular public meetings of hazards and mitigation measures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing
Goal: Preserve and restore the beneficial functions of natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.								
27	Natural Resource Protection	All	Maintain a healthy forest that can help mitigation the damaging impacts of flooding, erosion, landslides, and wild fires within urban and rural areas	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
28	Natural Resource Protection	All	Maintain a healthy forest that can help mitigate the damaging impacts of flooding,	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing

			erosion, landslides, and wild fires within urban areas.					
29	Natural Resource Protection	All	Seek technical assistance through the Alabama Cooperative Extension System and/or the Alabama Forestry Commission with Best Management Practices (BMPs) for channel and drainage system maintenance.	HMGP grants, General Fund, other grant	Medium	All jurisdictions	HMGP	Ongoing
30	Natural Resource Protection	All	Enact and enforce dumping regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
31	Natural Resource Protection	All	Enact and enforce erosion and sedimentation control regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
32	Natural Resource Protection	All	Seek technical assistance through hthe Alabama Cooperative Extension System with Best Management Practices (BMP) for channel and drainage system maintenance.	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing

33	Natural Resource Protection	All	Encourage land acquisition programs to acquire habitat throughout Monroe County	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Apply engineered structural modifications to natural systems and public infrastructure to reduce potentially damaging impacts of hazards, where feasible, cost effective, and environmentally suitable								
34	Structural Projects	All	Improve maintenance programs for streams and drainage ways	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
35	Structural Projects	All	Implement drainage improvement in watersheds throughout Monroe County	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
36	Structural Projects	All	Continue to clear debris from roads and drainage ways		High	All jurisdictions	HMGP	Ongoing
37	Structural Projects	All	Continue to improve and maintain county road system	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
38	Structural Projects	All	Prepare and implement standard operation procedures for drainage system	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing

			maintenance					
Goal: Improve the Efficiency, timing, and effectiveness of response and recovery for natural hazard disasters								
39	Emergency Services	All	Improve public warning systems	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
40	Emergency Services	All	Improve public access to weather alerts	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
41	Emergency Services	All	Use social media to provide information about the public about dangerous weather	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
42	Emergency Services		Purchase emergency generators for post-disaster mitigation as needed. In particular for the Volunteer Fire Departments, Monroe County Courthouse, and all water and sewer facilities throughout Monroe County.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
43	Emergency Services		Install an automated weather monitoring system that transmit data to the County	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

			EMA and the NWS, including all-weather stations, precipitation gauges, wind gauges, and temperature gauges					
44	Emergency Services	All	Promote the use of weather radios in households and businesses.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
45	Emergency Services All	All	Upgrade Critical Communication Infrastructure	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

v. City of Monroeville Mitigation Measures (New and Continued from 2005 Plan)

Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	Responsible Department	Existing Potential Resources	Timeframe
Goal: Maintain a comprehensive database of hazard locations, socio economic data, infrastructure, and critical facilities inventories								
1	Prevention	All	Maintain a centralized countywide natural hazards and risk assessment database in GIS that is accessible to all personnel including flood zones, geohazards, major drainage structures, dams/levees; tornado tracks,	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	Virtual Alabama, GIS Data, HMGP	Ongoing
Goal: Manage the development of land and buildings to minimize the risks of loss due to natural hazards								
2	Prevention	Flood	Effectively administer and enforce local floodplain management regulations	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	FEMA flood maps, HMGP, ADECA	Ongoing
3	Prevention	Flood	Train local floodplain managers through programs offered at the State and Federal level.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing

4	Prevention	All	Continue to participate in the NFIP and participate in the future even if not a currently enrolled.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
5	Prevention	All	Maintain a library of technical assistance and guidance materials for local floodplain managers and use Monroe County EMA website for implementation	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
6	Prevention	All	Promote adoption of uniform flood hazard prevention ordinance among all of the NFIP communities in Monroe County.	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	HMGP and ADECA	Ongoing
7	Prevention	All	Acquire GIS software for marinating risk assessment data	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing
8	Prevention	High	Prepare and adopt a comprehensive plan	HMGP grants, General Fund, other grant funding	Low	Monroe County EMA	HMGP and ADECA	Ongoing
9	Prevention	High	Require the construction of Safe Rooms in new public buildings, such as new	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

			schools, libraries, community centers and other public buildings when feasible					
10	Prevention	All	Construct free-standing public Safe Rooms in existing vulnerable locations	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP ADECA	Ongoing
11	Prevention	All	Apply for funding to update/revise mitigation plan when needed	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
12	Prevention	All	Conduct special studies as needed to identify hazard risks and mitigation measures	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
Goal: Protect structures and their occupants and contents from damaging effects of natural hazards								
13	Property Protection	All	Encourage retrofits of older homes constructed before the enactment of floodplain regulations	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
14	Property Protection	All	Maintain insurance riders on existing properties	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
15	Property Protection	All	Provide back-up power for critical	HMGP grants, General Fund,	High	All jurisdictions	HMGP	Ongoing

			facilities and fire stations	other grant funding				
16	Property Protection	All	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
17	Property Protection	All	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
18	Property Protection	All	Retrofit public schools with community Safe Rooms.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
19	Property Protection	All	Increase access to Flood Insurance Rate Maps.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
20	Property	All	Promote the purchase	HMGP grants,	Medium	All	HMGP	Ongoing

	Protection		of flood insurance coverage by property owners and renters in high-risk flooding areas.	General Fund, other grant funding		jurisdictions		
21	Property Protection	All	Continue to send law enforcement and fire personnel to emergency response training	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
22	Property Protection	Fire	Install water infrastructure and Fire hydrants in rural areas	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
23	Property Protection	All	Encourage the construction of safe rooms in new and existing construction.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Education and inform the public about the risk of hazards and the techniques available to reduce threats to life and property.								
24	Public Education and Outreach	All	Maintain appropriate media relationships to ensure the public is informed of hazard threats and means to mitigate property damages and loss of life.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing

25	Public Education and Outreach	All	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
26	Public Education and Outreach	All	Conduct regular public meetings of hazards and mitigation measures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing
Goal: Preserve and restore the beneficial functions of natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.								
27	Natural Resource Protection	All	Maintain a healthy forest that can help mitigation the damaging impacts of flooding, erosion, landslides, and wild fires within urban and rural areas	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
28	Natural Resource Protection	All	Maintain a healthy forest that can help mitigate the damaging	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing

			impacts of flooding, erosion, landslides, and wild fires within urban areas.					
29	Natural Resource Protection	All	Seek technical assistance through the Alabama Cooperative Extension System and/or the Alabama Forestry Commission with Best Management Practices (BMPs) for channel and drainage system maintenance.	HMGP grants, General Fund, other grant	Medium	All jurisdictions	HMGP	Ongoing
30	Natural Resource Protection	All	Enact and enforce dumping regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
31	Natural Resource Protection	All	Enact and enforce erosion and sedimentation control regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
32	Natural Resource Protection	All	Seek technical assistance through hthe Alabama Cooperative Extension System with Best Management Practices (BMP) for channel and drainage	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing

			system maintenance.					
33	Natural Resource Protection	All	Encourage land acquisition programs to acquire habitat throughout Monroe County	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Apply engineered structural modifications to natural systems and public infrastructure to reduce potentially damaging impacts of hazards, where feasible, cost effective, and environmentally suitable								
34	Structural Projects	All	Improve maintenance programs for streams and drainage ways	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
35	Structural Projects	All	Implement drainage improvement in watersheds throughout Monroe County	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
36	Structural Projects	All	Continue to clear debris from roads and drainage ways		High	All jurisdictions	HMGP	Ongoing
37	Structural Projects	All	Continue to improve and maintain county road system	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
38	Structural Projects	All	Prepare and implement standard operation procedures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing

			for drainage system maintenance	funding				
Goal: Improve the Efficiency, timing, and effectiveness of response and recovery for natural hazard disasters								
39	Emergency Services	All	Improve public warning systems	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
40	Emergency Services	All	Improve public access to weather alerts	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
41	Emergency Services	All	Use social media to provide information about the public about dangerous weather	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
42	Emergency Services		Purchase emergency generators for post-disaster mitigation as needed. In particular for the Volunteer Fire Departments, Monroe County Courthouse, and all water and sewer facilities throughout Monroe County.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
43	Emergency Services		Install an automated weather monitoring system that transmit	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing

			data to the County EMA and the NWS, including all-weather stations, precipitation gauges, wind gauges, and temperature gauges	funding				
44	Emergency Services	All	Promote the use of weather radios in households and businesses.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
45	Emergency Services All	All	Upgrade Critical Communication Infrastructure	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

vi. Town of Vrdenburgh Mitigation Measures (New and Continued from 2005 Plan)

Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	Responsible Department	Existing Potential Resources	Timeframe
Goal: Maintain a comprehensive database of hazard locations, socio economic data, infrastructure, and critical facilities inventories								
1	Prevention	All	Maintain a centralized countywide natural hazards and risk assessment database in GIS that is accessible to all personnel including flood zones, geohazards, major drainage structures, dams/levees; tornado tracks,	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	Virtual Alabama, GIS Data, HMGP	Ongoing
Goal: Manage the development of land and buildings to minimize the risks of loss due to natural hazards								
2	Prevention	Flood	Effectively administer and enforce local floodplain management regulations	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	FEMA flood maps, HMGP, ADECA	Ongoing
3	Prevention	Flood	Train local floodplain managers through programs offered at the State and Federal	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing

			level.					
4	Prevention	All	Continue to participate in the NFIP and participate in the future even if not a currently enrolled.	HMGP grants, General Fund, other grant funding	High	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
5	Prevention	All	Maintain a library of technical assistance and guidance materials for local floodplain managers and use Monroe County EMA website for implementation	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA and City of Monroeville	HMGP and ADECA	Ongoing
6	Prevention	All	Promote adoption of uniform flood hazard prevention ordinance among all of the NFIP communities in Monroe County.	HMGP grants, General Fund, other grant funding	Medium	Monroe County EMA	HMGP and ADECA	Ongoing
7	Prevention	All	Acquire GIS software for marinating risk assessment data	HMGP grants, General Fund, other grant funding	High	Monroe County EMA	HMGP and ADECA	Ongoing
8	Prevention	High	Prepare and adopt a comprehensive plan	HMGP grants, General Fund, other grant funding	Low	Monroe County EMA	HMGP and ADECA	Ongoing
9	Prevention	High	Require the construction of Safe Rooms in new public	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing

			buildings, such as new schools, libraries, community centers and other public buildings when feasible	funding				
10	Prevention	All	Construct free-standing public Safe Rooms in existing vulnerable locations	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP ADECA	Ongoing
11	Prevention	All	Apply for funding to update/revise mitigation plan when needed	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
12	Prevention	All	Conduct special studies as needed to identify hazard risks and mitigation measures	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
Goal: Protect structures and their occupants and contents from damaging effects of natural hazards								
13	Property Protection	All	Encourage retrofits of older homes constructed before the enactment of floodplain regulations	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
14	Property Protection	All	Maintain insurance riders on existing properties	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
15	Property	All	Provide back-up	HMGP grants,	High	All	HMGP	Ongoing

	Protection		power for critical facilities and fire stations	General Fund, other grant funding		jurisdictions		
16	Property Protection	All	Promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
17	Property Protection	All	Encourage the construction of safe rooms within new public buildings, such as new schools, libraries, community centers, and other public buildings where feasible.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
18	Property Protection	All	Retrofit public schools with community Safe Rooms.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
19	Property Protection	All	Increase access to Flood Insurance Rate Maps.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

20	Property Protection	All	Promote the purchase of flood insurance coverage by property owners and renters in high-risk flooding areas.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
21	Property Protection	All	Continue to send law enforcement and fire personnel to emergency response training	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
22	Property Protection	Fire	Install water infrastructure and Fire hydrants in rural areas	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
23	Property Protection	All	Encourage the construction of safe rooms in new and existing construction.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Education and inform the public about the risk of hazards and the techniques available to reduce threats to life and property.								
24	Public Education and Outreach	All	Maintain appropriate media relationships to ensure the public is informed of hazard threats and means to mitigate property damages and loss of	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing

			life.					
25	Public Education and Outreach	All	Publicize the availability of FIRM information to real estate agents, builders, developers, and homeowners through local trade publications and newspaper announcements.	HMGP grants, General Fund, other grant funding	Medium	All jurisdictions	HMGP	Ongoing
26	Public Education and Outreach	All	Conduct regular public meetings of hazards and mitigation measures	HMGP grants, General Fund, other grant	Low	All jurisdictions	HMGP	Ongoing
Goal: Preserve and restore the beneficial functions of natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.								
27	Natural Resource Protection	All	Maintain a healthy forest that can help mitigation the damaging impacts of flooding, erosion, landslides, and wild fires within urban and rural areas	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
28	Natural Resource	All	Maintain a healthy forest that can help	HMGP grants, General Fund,	Low	All jurisdictions	HMGP	Ongoing

	Protection		mitigate the damaging impacts of flooding, erosion, landslides, and wild fires within urban areas.	other grant				
29	Natural Resource Protection	All	Seek technical assistance through the Alabama Cooperative Extension System and/or the Alabama Forestry Commission with Best Management Practices (BMPs) for channel and drainage system maintenance.	HMGP grants, General Fund, other grant	Medium	All jurisdictions	HMGP	Ongoing
30	Natural Resource Protection	All	Enact and enforce dumping regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
31	Natural Resource Protection	All	Enact and enforce erosion and sedimentation control regulations	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing
32	Natural Resource Protection	All	Seek technical assistance through hthe Alabama Cooperative Extension System with Best Management Practices (BMP) for	HMGP grants, General Fund, other grant funding	Low	All jurisdictions	HMGP	Ongoing

			channel and drainage system maintenance.					
33	Natural Resource Protection	All	Encourage land acquisition programs to acquire habitat throughout Monroe County	HMGP grants, General Fund, other grant	High	All jurisdictions	HMGP	Ongoing
Mitigation Measure Number	Program Objective	Hazards Addressed	Mitigation Measure	Funding Resources	Priority	All jurisdictions	HMGP	Ongoing
Goal: Apply engineered structural modifications to natural systems and public infrastructure to reduce potentially damaging impacts of hazards, where feasible, cost effective, and environmentally suitable								
34	Structural Projects	All	Improve maintenance programs for streams and drainage ways	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
35	Structural Projects	All	Implement drainage improvement in watersheds throughout Monroe County	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
36	Structural Projects	All	Continue to clear debris from roads and drainage ways		High	All jurisdictions	HMGP	Ongoing
37	Structural Projects	All	Continue to improve and maintain county road system	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
38	Structural Projects	All	Prepare and implement standard	HMGP grants, General Fund,	Low	All jurisdictions	HMGP	Ongoing

			operation procedures for drainage system maintenance	other grant funding				
Goal: Improve the Efficiency, timing, and effectiveness of response and recovery for natural hazard disasters								
39	Emergency Services	All	Improve public warning systems	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
40	Emergency Services	All	Improve public access to weather alerts	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
41	Emergency Services	All	Use social media to provide information about the public about dangerous weather	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
42	Emergency Services		Purchase emergency generators for post-disaster mitigation as needed. In particular for the Volunteer Fire Departments, Monroe County Courthouse, and all water and sewer facilities throughout Monroe County.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
43	Emergency Services		Install an automated weather monitoring	HMGP grants, General Fund,	High	All jurisdictions	HMGP	Ongoing

			system that transmit data to the County EMA and the NWS, including all-weather stations, precipitation gauges, wind gauges, and temperature gauges	other grant funding				
44	Emergency Services	All	Promote the use of weather radios in households and businesses.	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing
45	Emergency Services All	All	Upgrade Critical Communication Infrastructure	HMGP grants, General Fund, other grant funding	High	All jurisdictions	HMGP	Ongoing

6. Plan Maintenance – The Monroe County Emergency Management Agency is responsible for maintaining the local Hazard Mitigation Plan, including all monitoring, evaluation, and updating activities. As part of this plan update process, the MC EMA reviewed the status detailed in the 2005 Plan for monitoring, evaluating, and updating the plan and compared it to the plan maintenance activities that took place since plan adoption in 2005.

   Regular plan monitoring will be achieved through MCEMA's efforts to track mitigation activities. The annual review will take place in June of each year and will be initiated by the MC EMA Director. The Director will e-mail a survey to each member of the Hazard Mitigation Planning Committee. The survey will request input on the following items:

   1. Changes in the level or risk to the county and its citizens
   2. Changes in laws, policies, or regulations at the local or state level
   3. Changes in the state or local agencies or their procedures that will affect how mitigation programs or funds are administered
   4. Significant changes in funding sources or capabilities
   5. Changes in the composition of Hazard Mitigation Planning Committee
   6. Progress on mitigation actions and new mitigation actions
   7. Major changes to the multi-jurisdictional hazard mitigation plan.

   The Monroe County Natural Hazards Mitigation Plan will be updated every five years as required by FEMA. At the beginning of the fifth year, the EMA director will begin making arrangements for the plan's update. The process of updating the plan will be undertaken in the same way as the development of the plan. The public participation component will also be included. At least two advertised public meetings will be held to involve the public in the update process. Drafts of the updated plan will also be available for public comment. Within the five-year cycle, a jurisdiction may request to update the plan. If the jurisdiction would like to update only a jurisdiction specific portion, such as mitigation goals/strategies it may do so. Any jurisdiction MUST contact the EMA director in order to ensure he has an amended copy of their part of the plan. Private citizens and/or local businesses may request an update within the five- year planning cycle also. All request made by private citizens and/or local businesses must be made directly to the EMA.

In the event modifications to the plan are warranted as a result of the annual review or other conditions, the Committee will oversee and approve all revisions to the plan. Before any revisions are submitted to the jurisdictions for adoption, a notice will be placed in the local newspaper, allowing an opportunity for the public to review the proposed amendments at the EMA offices, submit written comments, and present comments at a public meeting. The Committee will then submit all revisions for adoption by all of the jurisdictions. A copy of the plan revisions will be submitted to all holders of the original plan in a timely manner.

At the end of the five-year cycle of the Action Program, the Committee will oversee a major update to the plan that follows the federal planning criteria in effect at the time of the update. The updated plan will again be submitted to the AEMA and FEMA for approval.

A critical part of maintaining an effective and relevant natural hazards mitigation plan is ongoing public review and comment. Consequently, the Hazard Mitigation Planning Committee is dedicated to direct involvement of its citizens in providing feedback and comments on the plan throughout the five-year implementation cycle. To this end, a hard copy of the plan will be available for viewing at all appropriate agencies throughout the County; including, at a minimum, the Monroe County Emergency Management Agency Office, the office of the County Commission, the offices of the Mayors, and the main public library.

The Monroe County Hazard Mitigation Plan will be incorporated into existing planning mechanisms in all participating jurisdictions. However, since Monroe County is rural with negligible growth, there are few existing planning mechanisms available. Those jurisdictions with building codes or zoning ordinances will incorporate hazard mitigation strategies into existing codes. These updates will occur as budgets and time allow. Those jurisdictions without building codes or zoning ordinances, that decide to adopt new ordinances, will be required to reflect the goals and objectives they set forth in the plan. Those jurisdictions updating comprehensive plans will also have to reflect their hazard mitigation goals and objectives in their plan. The Monroe County EMA will also incorporate the plan in the Emergency Operations Plan at the next update. Since the original plan, the City of Monroeville has updated its comprehensive plan. The mitigation plan was reviewed to ensure that any proposed changes (i.e. land use) would not conflict with strategies identified in the plan. The mitigation plan will also be

consulted to ensure that no hazards (i.e. landslides, subsidence, and expansive soil) are present when permits or variances are granted. Strategies and goals identified in the mitigation plan will also be incorporated into other planning mechanisms' strategies and goals. As other jurisdictions update their plans, the same steps will be followed.

7. Approval and Adoption – After preliminary review by FEMA, each jurisdiction in Monroe County will adopt the plan via resolution. The Monroe County plan update applies to all local agencies, board, commission, and departments assigned mitigation responsibilities, and to others as deigned by the Monroe County Commission or Director or the Monroe County Emergency Management Agency.

   The Monroe County Multi-Hazard Mitigation Plan Update was prepared in compliance with Public Law 106-390, Disaster Mitigation Act of 2000, as amended. This plan update implements hazard mitigation measures intended to eliminate or reduce the effects of further disaster throughout Monroe County, and was developed in a joint and cooperate venture by members of the Monroe County Hazard Mitigation Planning Committee.

   Monroe County will comply with all application state and federal statutes and regulations in effect with respect to the periods for which it recievded grant funding, in compliance with 44 Code of Federal Regulations (CDF) 113.11c. Monroe County will amend its plan whenever necessary to reflect changes in local/state and/or federal laws and statutes required in 44 CFR, 12,11d. At a minimum, the Monroe County Emergency Management Agency will review and if necessary, update the plan every five years from the date of approval in accordance with 44 CRF, 201.6 (5) (d0 (3) in order to continue program eligibility.

7. Appendices
    a. Appendix A – 44 CFR 201 Hazard Mitigation Planning

SUBCHAPTER D—DISASTER ASSISTANCE

PART 200 [RESERVED]

PART 201—MITIGATION PLANNING

Sec.

AUTHORITY: Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 through 5207; Reorganization Plan No. 3 of 1978, 43 FR 41943, 3 CFR, 1978 Comp., p. 329; Homeland Security Act of 2002, 6 U.S.C. 101; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp., p. 376; E.O. 12148, 44 FR 43239, 3 CFR, 1979 Comp., p. 412; E.O. 13286, 68 FR 10619, 3 CFR, 2003 Comp., p. 166.

SOURCE: 67 FR 8848, Feb. 26, 2002, unless otherwise noted.

§201.1 Purpose.

(a) The purpose of this part is to provide information on the polices and procedures for mitigation planning as required by the provisions of section 322 of the Stafford Act, 42 U.S.C. 5165.

(b) The purpose of mitigation planning is for State, local, and Indian tribal governments to identify the natural hazards that impact them, to identify actions and activities to reduce any losses from those hazards, and to establish a coordinated process to implement the plan, taking advantage of a wide range of resources.

§201.2 Definitions.

Administrator means the head of the Federal Emergency Management Agency, or his/her designated representative.

Flood Mitigation Assistance (FMA) means the program authorized by section 1366 of the National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4104c, and implemented at parts 78 and 79.

Grantee means the government to which a grant is awarded, which is accountable for the use of the funds provided. The grantee is the entire legal entity even if only a particular component of the entity is designated in the grant award document. Generally, the State is the grantee. However, after a declaration, an Indian tribal government may choose to be a grantee, or may act as a subgrantee under the State. An Indian tribal government acting as grantee will assume the responsibilities of a "state", as described in this part, for the purposes of administering the grant.

Hazard mitigation means any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.

Hazard Mitigation Grant Program (HMGP) means the program authorized under section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5170c, and implemented at part 206, subpart N of this chapter.

Indian Tribal government means any Federally recognized governing body of an Indian or Alaska Native Tribe, band, nation, pueblo, village, or community that the Secretary of Interior acknowledges to exist as an Indian Tribe under the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a. This does not include Alaska Native corporations, the ownership of which is vested in private individuals.

Local government is any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

Managing State means a State to which FEMA has delegated the authority to administer and manage the HMGP under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c). FEMA may also delegate authority to tribal governments to administer and manage the HMGP as a Managing State.

Pre-Disaster Mitigation Program (PDM) means the program authorized under section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5133.

Regional Administrator means the head of a Federal Emergency Management Agency regional office, or his/her designated representative.

Repetitive Flood Claims (RFC) program means the program authorized under section 1323 of the National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4011, which provides funding to reduce flood damages to individual properties for which 1 or more claim payments for losses have been made under flood insurance coverage and that will result in the greatest savings to the National Flood Insurance Program (NFIP) in the shortest period of time.

Severe Repetitive Loss (SRL) program means the program authorized under section 1361(a) of the National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4102a, and implemented at part 79 of this chapter.

Severe Repetitive Loss properties are defined as single or multifamily residential properties that are covered under an NFIP flood insurance policy and:

(1) That have incurred flood-related damage for which 4 or more separate claims payments have been made, with the amount of each claim (including building and contents payments) exceeding $5,000, and with the cumulative amount of such claims payments exceeding $20,000; or

(2) For which at least 2 separate claims payments (building payments only) have been made under such coverage, with cumulative amount of such claims exceeding the market value of the property.

(3) In both instances, at least 2 of the claims must be within 10 years of each other, and claims made within 10 days of each other will be counted as 1 claim.

Small and impoverished communities means a community of 3,000 or fewer individuals that is identified by the State as a rural community, and is not a remote area within the corporate boundaries of a larger city; is economically disadvantaged, by having an average per capita annual income of residents not exceeding 80 percent of national, per capita income, based on best available data; the local unemployment rate exceeds by one percentage point or more, the most recently reported, average yearly national unemployment rate; and any other factors identified in the State Plan in which the community is located.

The Stafford Act refers to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended (42 U.S.C. 5121–5206).

State is any State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

State Hazard Mitigation Officer is the official representative of State government who is the primary point of contact with FEMA, other Federal agencies, and local governments in mitigation planning and implementation of mitigation programs and activities required under the Stafford Act.

Subgrantee means the government or other legal entity to which a subgrant is awarded and which is accountable to the grantee for the use of the funds provided. Subgrantees can be a State agency, local government, private nonprofit organizations, or Indian tribal government. Indian tribal governments acting as a subgrantee are accountable to the State grantee.

[67 FR 8848, Feb. 26, 2002, as amended at 72 FR 61747, Oct. 31, 2007; 74 FR 15344, Apr. 3, 2009; 74 FR 47481, Sept. 16, 2009]

§201.3 Responsibilities.

(a) *General.* This section identifies the key responsibilities of FEMA, States, and local/tribal governments in carrying out section 322 of the Stafford Act, 42 U.S.C. 5165.

(b) *FEMA.* The key responsibilities of the Regional Administrator are to:

(1) Oversee all FEMA related pre- and post-disaster hazard mitigation programs and activities;

(2) Provide technical assistance and training to State, local, and Indian tribal governments regarding the mitigation planning process;

(3) Review and approve all Standard and Enhanced State Mitigation Plans;

(4) Review and approve all local mitigation plans, unless that authority has been delegated to the State in accordance with § 201.6(d);

(5) Conduct reviews, at least once every three years, of State mitigation activities, plans, and programs to ensure that mitigation commitments are fulfilled, and when necessary, take action, including recovery of funds or denial of future funds, if mitigation commitments are not fulfilled.

(c) *State.* The key responsibilities of the State are to coordinate all State and local activities relating to hazard evaluation and mitigation and to:

(1) Prepare and submit to FEMA a Standard State Mitigation Plan following the criteria established in § 201.4 as a condition of receiving non-emergency Stafford Act assistance and FEMA mitigation grants. In addition, a State may choose to address severe repetitive loss properties in their plan as identified in § 201.4(c)(3)(v) to receive the reduced cost share for the Flood Mitigation Assistance (FMA) and Severe Repetitive Loss (SRL) programs, pursuant to § 79.4(c)(2) of this chapter.

(2) In order to be considered for the 20 percent HMGP funding, prepare and submit an Enhanced State Mitigation Plan in accordance with § 201.5, which must be reviewed and updated, if necessary, every three years from the date of the approval of the previous plan.

(3) At a minimum, review and update the Standard State Mitigation Plan every 3 years from the date of the approval of the previous plan in order to continue program eligibility.

(4) Make available the use of up to the 7 percent of HMGP funding for planning in accordance with § 206.434.

(5) Provide technical assistance and training to local governments to assist them in applying for HMGP planning grants, and in developing local mitigation plans.

(6) For Managing States that have been approved under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c), review and approve local mitigation plans in accordance with § 201.6(d).

(d) *Local governments.* The key responsibilities of local governments are to:

(1) Prepare and adopt a jurisdiction-wide natural hazard mitigation plan as a condition of receiving project grant funds under the HMGP, in accordance with § 201.6.

(2) At a minimum, review and update the local mitigation plan every 5 years from date of plan approval of the previous plan in order to continue program eligibility.

(e) *Indian tribal governments.* The key responsibilities of the Indian tribal government are to coordinate all tribal activities relating to hazard evaluation and mitigation and to:

(1) Prepare and submit to FEMA a Tribal Mitigation Plan following the criteria established in § 201.7 as a condition of receiving non-emergency Stafford Act assistance as a grantee. This plan will also allow Indian tribal governments to apply through the State, as a subgrantee, for any FEMA mitigation project grant. Indian tribal governments with a plan approved by FEMA on or before October 1, 2008 under § 201.4 or § 201.6 will also meet this planning requirement. All Tribal Mitigation Plans approved after that date must follow the criteria identified in § 201.7. In addition, an Indian Tribal government applying to FEMA as a grantee may choose to address severe repetitive loss properties as identified in § 201.4(c)(3)(v) as a condition of receiving the reduced cost share for the FMA and SRL programs, pursuant to § 79.4(c)(2) of this chapter.

(2) Review and update the Tribal Mitigation Plan at least every 5 years from the date of approval of the previous plan in order to continue program eligibility.

(3) In order to be considered for the increased HMGP funding, the Tribal Mitigation Plan must meet the Enhanced State Mitigation Plan criteria identified in § 201.5. The plan must be reviewed and updated at least every 3 years from the date of approval of the previous plan.

[67 FR 8848, Feb. 26, 2002, as amended at 67 FR 61515, Oct. 1, 2002; 69 FR 55096, Sept. 13, 2004; 72 FR 61748, Oct. 31, 2007; 74 FR 47482, Sept. 16, 2009]

§ 201.4 Standard State Mitigation Plans.

(a) *Plan requirement.* States must have an approved Standard State Mitigation Plans meeting the requirements of this section as a condition of receiving non-emergency Stafford Act assistance and FEMA mitigation grants. Emergency assistance provided under 42 U.S.C. 5170a, 5170b, 5173, 5174, 5177, 5179, 5180, 5182, 5183, 5184, 5192 will not be affected. Mitigation planning grants provided through the Pre-disaster Mitigation (PDM) program, authorized under section 203 of the Stafford Act, 42 U.S.C. 5133, will also continue to be available. The mitigation plan is the demonstration of the State's commitment to reduce risks from natural hazards and serves as a guide for State decision makers as they commit resources to reducing the effects of natural hazards.

(b) *Planning process.* An effective planning process is essential in developing and maintaining a good plan. The mitigation planning process should include coordination with other State agencies, appropriate Federal agencies, interested groups, and be integrated to the extent possible with other ongoing State planning efforts as well as other FEMA mitigation programs and initiatives.

(c) *Plan content.* To be effective the plan must include the following elements:

(1) Description of the *planning process* used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated.

(2) *Risk assessments* that provide the factual basis for activities proposed in the strategy portion of the mitigation plan. Statewide risk assessments must characterize and analyze natural hazards and risks to provide a statewide overview. This overview will allow the State to compare potential losses throughout the State and to determine their priorities for implementing mitigation measures under the strategy, and to prioritize jurisdictions for receiving technical and financial support in developing more detailed local risk and vulnerability assessments. The risk assessment shall include the following:

(i) An overview of the type and location of all natural hazards that can affect the State, including information on previous occurrences of hazard events, as well as the probability of future hazard events, using maps where appropriate;

(ii) An overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments as well as the State risk assessment. The State shall describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard events. State owned or operated critical facilities located in the identified hazard areas shall also be addressed;

(iii) An overview and analysis of potential losses to the identified vulnerable structures, based on estimates provided in local risk assessments as well as the State risk assessment. The State shall estimate the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities located in the identified hazard areas.

(3) A *Mitigation Strategy* that provides the State's blueprint for reducing the losses identified in the risk assessment. This section shall include:

(i) A description of State goals to guide the selection of activities to mitigate and reduce potential losses.

(ii) A discussion of the State's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas; a discussion of State funding capabilities for hazard mitigation projects; and a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

(iii) An identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to local

plans, where specific local actions and projects are identified.

(iv) Identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.

(v) A State may request the reduced cost share authorized under §79.4(c)(2) of this chapter for the FMA and SRL programs, if it has an approved State Mitigation Plan meeting the requirements of this section that also identifies specific actions the State has taken to reduce the number of repetitive loss properties (which must include severe repetitive loss properties), and specifies how the State intends to reduce the number of such repetitive loss properties. In addition, the plan must describe the strategy the State has to ensure that local jurisdictions with severe repetitive loss properties take actions to reduce the number of these properties, including the development of local mitigation plans.

(4) A section on the *Coordination of Local Mitigation Planning* that includes the following:

(i) A description of the State process to support, through funding and technical assistance, the development of local mitigation plans.

(ii) A description of the State process and timeframe by which the local plans will be reviewed, coordinated, and linked to the State Mitigation Plan.

(iii) Criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs, which should include consideration for communities with the highest risks, repetitive loss properties, and most intense development pressures. Further, that for non-planning grants, a principal criterion for prioritizing grants shall be the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated costs.

(5) A *Plan Maintenance Process* that includes:

(i) An established method and schedule for monitoring, evaluating, and updating the plan.

(ii) A system for monitoring implementation of mitigation measures and project closeouts.

(iii) A system for reviewing progress on achieving goals as well as activities and projects identified in the Mitigation Strategy.

(6) A *Plan Adoption Process.* The plan must be formally adopted by the State prior to submittal to us for final review and approval.

(7) *Assurances.* The plan must include assurances that the State will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c) of this chapter. The State will amend its plan whenever necessary to reflect changes in State or Federal statutes and regulations as required in 44 CFR 13.11(d) of this chapter.

(d) *Review and updates.* Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities and resubmitted for approval to the appropriate Regional Administrator every three years. The Regional review will be completed within 45 days after receipt from the State, whenever possible. We also encourage a State to review its plan in the post-disaster timeframe to reflect changing priorities, but it is not required.

[67 FR 8848, Feb. 26, 2002, as amended at 67 FR 61515, Oct. 1, 2002; 69 FR 55096, Sept. 13, 2004; 72 FR 61565, 61738, Oct. 31, 2007]

§201.5 Enhanced State Mitigation Plans.

(a) A State with a FEMA approved Enhanced State Mitigation Plan at the time of a disaster declaration is eligible to receive increased funds under the HMGP, based on twenty percent of the total estimated eligible Stafford Act disaster assistance. The Enhanced State Mitigation Plan must demonstrate that a State has developed a comprehensive mitigation program, that the State effectively uses available mitigation funding, and that it is capable of managing the increased funding. In order for the State to be eligible for the 20 percent HMGP funding, FEMA must have approved the plan within three years prior to the disaster declaration.

(b) Enhanced State Mitigation Plans must include all elements of the Standard State Mitigation Plan identified in

§201.4, as well as document the following:

(1) Demonstration that the plan is integrated to the extent practicable with other State and/or regional planning initiatives (comprehensive, growth management, economic development, capital improvement, land development, and/or emergency management plans) and FEMA mitigation programs and initiatives that provide guidance to State and regional agencies.

(2) Documentation of the State's project implementation capability, identifying and demonstrating the ability to implement the plan, including:

(i) Established eligibility criteria for multi-hazard mitigation measures.

(ii) A system to determine the cost effectiveness of mitigation measures, consistent with OMB Circular A–94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, and to rank the measures according to the State's eligibility criteria.

(iii) Demonstration that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, including a record of the following:

(A) Meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation;

(B) Preparing and submitting accurate environmental reviews and benefit-cost analyses;

(C) Submitting complete and accurate quarterly progress and financial reports on time; and

(D) Completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation.

(iv) A system and strategy by which the State will conduct an assessment of the completed mitigation actions and include a record of the effectiveness (actual cost avoidance) of each mitigation action.

(3) Demonstration that the State effectively uses existing mitigation programs to achieve its mitigation goals.

(4) Demonstration that the State is committed to a comprehensive state mitigation program, which might include any of the following:

(i) A commitment to support local mitigation planning by providing workshops and training, State planning grants, or coordinated capability development of local officials, including Emergency Management and Floodplain Management certifications.

(ii) A statewide program of hazard mitigation through the development of legislative initiatives, mitigation councils, formation of public/private partnerships, and/or other executive actions that promote hazard mitigation.

(iii) The State provides a portion of the non-Federal match for HMGP and/or other mitigation projects.

(iv) To the extent allowed by State law, the State requires or encourages local governments to use a current version of a nationally applicable model building code or standard that addresses natural hazards as a basis for design and construction of State sponsored mitigation projects.

(v) A comprehensive, multi-year plan to mitigate the risks posed to existing buildings that have been identified as necessary for post-disaster response and recovery operations.

(vi) A comprehensive description of how the State integrates mitigation into its post-disaster recovery operations.

(c) *Review and updates.* (1) A State must review and revise its plan to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities, and resubmit it for approval to the appropriate Regional Administrator every three years. The Regional review will be completed within 45 days after receipt from the State, whenever possible.

(2) In order for a State to be eligible for the 20 percent HMGP funding, the Enhanced State Mitigation plan must be approved by FEMA within the three years prior to the current major disaster declaration.

§ 201.6 Local Mitigation Plans.

The local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to

reducing the effects of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding.

(a) *Plan requirements.* (1) A local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants. The Administrator may, at his discretion, require a local mitigation plan for the Repetitive Flood Claims Program. A local government must have a mitigation plan approved pursuant to this section in order to apply for and receive mitigation project grants under all other mitigation grant programs.

(2) Plans prepared for the FMA program, described at part 79 of this chapter, need only address these requirements as they relate to flood hazards in order to be eligible for FMA project grants. However, these plans must be clearly identified as being flood mitigation plans, and they will not meet the eligibility criteria for other mitigation grant programs, unless flooding is the only natural hazard the jurisdiction faces.

(3) Regional Administrator's may grant an exception to the plan requirement in extraordinary circumstances, such as in a small and impoverished community, when justification is provided. In these cases, a plan will be completed within 12 months of the award of the project grant. If a plan is not provided within this timeframe, the project grant will be terminated, and any costs incurred after notice of grant's termination will not be reimbursed by FEMA.

(4) Multi-jurisdictional plans (*e.g.* watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan. State-wide plans will not be accepted as multi-jurisdictional plans.

(b) *Planning process.* An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;

(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and

(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

(c) *Plan content.* The plan shall include the following:

(1) Documentation of the *planning process* used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

(2) A *risk assessment* that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. The risk assessment shall include:

(i) A description of the type, location, and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

(ii) A description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. All plans approved after October 1, 2008 must also address NFIP insured structures that have been repetitively damaged by floods. The plan should describe vulnerability in terms of:

(A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;

(B) An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate;

(C) Providing a general description of land uses and development trends within the community so that mitigation

options can be considered in future land use decisions.

(iii) For multi-jurisdictional plans, the risk assessment section must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

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

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

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

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

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

(4) A *plan maintenance process* that includes:

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

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

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

(5) *Documentation* that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council). For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.

(d) *Plan review.* (1) Plans must be submitted to the State Hazard Mitigation Officer (SHMO) for initial review and coordination. The State will then send the plan to the appropriate FEMA Regional Office for formal review and approval. Where the State point of contact for the FMA program is different from the SHMO, the SHMO will be responsible for coordinating the local plan reviews between the FMA point of contact and FEMA.

(2) The Regional review will be completed within 45 days after receipt from the State, whenever possible.

(3) A local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval within 5 years in order to continue to be eligible for mitigation project grant funding.

(4) Managing States that have been approved under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c) will be delegated approval authority for local mitigation plans, and the review will be based on the criteria in this part. Managing States will review the plans within 45 days of receipt of the plans, whenever possible, and provide a copy of the approved plans to the Regional Office.

[67 FR 8843, Feb. 26, 2002, as amended at 67 FR 61515, Oct. 1, 2002; 68 FR 61370, Oct. 28, 2003; 69 FR 55096, Sept. 13, 2004; 72 FR 61748, Oct. 31, 2007 ; 74 FR 47482, Sept. 16, 2009]

§ 201.7 Tribal Mitigation Plans.

The Indian Tribal Mitigation Plan is the representation of the Indian tribal government's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.

(a) *Plan requirement.* (1) Indian tribal governments applying to FEMA as a grantee must have an approved Tribal

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Mitigation Plan meeting the requirements of this section as a condition of receiving non-emergency Stafford Act assistance and FEMA mitigation grants. Emergency assistance provided under 42 U.S.C. 5170a, 5170b, 5173, 5174, 5177, 5179, 5180, 5182, 5183, 5184, 5192 will not be affected. Mitigation planning grants provided through the PDM program, authorized under section 203 of the Stafford Act, 42 U.S.C. 5133, will also continue to be available.

(2) An Indian Tribal government applying to FEMA as a grantee may choose to address severe repetitive loss properties in their plan, as identified in §201.4(c)(3)(v), to receive the reduced cost share for the FMA and SRL programs.

(3) Indian Tribal governments applying through the State as a subgrantee must have an approved Tribal Mitigation Plan meeting the requirements of this section in order to receive HMGP project grants and, the Administrator, at his discretion may require a Tribal Mitigation Plan for the Repetitive Flood Claims Program. A Tribe must have an approved Tribal Mitigation Plan in order to apply for and receive FEMA mitigation project grants, under all other mitigation grant programs. The provisions in §201.6(a)(3) are available to Tribes applying as subgrantees.

(4) Multi-jurisdictional plans (*e.g.* county-wide or watershed plans) may be accepted, as appropriate, as long as the Indian tribal government has participated in the process and has officially adopted the plan. Indian tribal governments must address all the elements identified in this section to ensure eligibility as a grantee or as a subgrantee.

(b) An effective planning process is essential in developing and maintaining a good plan. The mitigation planning process should include coordination with other tribal agencies, appropriate Federal agencies, adjacent jurisdictions, interested groups, and be integrated to the extent possible with other ongoing tribal planning efforts as well as other FEMA mitigation programs and initiatives.

(c) *Plan content.* The plan shall include the following:

(1) Documentation of the *planning process* used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved. This shall include:

(i) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval, including a description of how the Indian tribal government defined "public;"

(ii) As appropriate, an opportunity for neighboring communities, tribal and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and nonprofit interests to be involved in the planning process;

(iii) Review and incorporation, if appropriate, of existing plans, studies, and reports; and

(iv) Be integrated to the extent possible with other ongoing tribal planning efforts as well as other FEMA programs and initiatives.

(2) A *risk assessment* that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Tribal risk assessments must provide sufficient information to enable the Indian tribal government to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. The risk assessment shall include:

(i) A description of the type, location, and extent of all natural hazards that can affect the tribal planning area. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

(ii) A description of the Indian tribal government's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the tribe. The plan should describe vulnerability in terms of:

(A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;

(B) An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the

methodology used to prepare the estimate;

(C) A general description of land uses and development trends within the tribal planning area so that mitigation options can be considered in future land use decisions; and

(D) Cultural and sacred sites that are significant, even if they cannot be valued in monetary terms.

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

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

(ii) A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

(iii) An action plan describing how the actions identified in paragraph (c)(3)(ii) of this section will be prioritized, implemented, and administered by the Indian Tribal government.

(iv) A discussion of the Indian tribal government's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: An evaluation of tribal laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas; and a discussion of tribal funding capabilities for hazard mitigation projects.

(v) Identification of current and potential sources of Federal, tribal, or private funding to implement mitigation activities.

(vi) An Indian Tribal government applying to FEMA as a grantee may request the reduced cost share authorized under §79.4(c)(2) of this chapter of the FMA and SRL programs if they have an approved Tribal Mitigation Plan meeting the requirements of this section that also identifies actions the Indian Tribal government has taken to reduce the number of repetitive loss properties (which must include severe repetitive loss properties), and specifies how the Indian Tribal government intends to reduce the number of such repetitive loss properties.

(4) A *plan maintenance process* that includes:

(i) A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan.

(ii) A system for monitoring implementation of mitigation measures and project closeouts.

(iii) A process by which the Indian tribal government incorporates the requirements of the mitigation plan into other planning mechanisms such as reservation master plans or capital improvement plans, when appropriate.

(iv) Discussion on how the Indian tribal government will continue public participation in the plan maintenance process.

(v) A system for reviewing progress on achieving goals as well as activities and projects identified in the mitigation strategy.

(5) *Plan Adoption Process.* The plan must be formally adopted by the governing body of the Indian tribal government prior to submittal to FEMA for final review and approval.

(6) *Assurances.* The plan must include assurances that the Indian tribal government will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with §13.11(c) of this chapter. The Indian tribal government will amend its plan whenever necessary to reflect changes in tribal or Federal laws and statutes as required in §13.11(d) of this chapter.

(d) *Plan review and updates.* (1) Plans must be submitted to the appropriate FEMA Regional Office for formal review and approval. Indian tribal governments who would like the option of being a subgrantee under the State must also submit their plan to the State Hazard Mitigation Officer for review and coordination.

(2) The Regional review will be completed within 45 days after receipt from the Indian tribal government, whenever possible.

(3) Indian tribal governments must review and revise their plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval within 5 years in order to continue to be eligible for non-emergency Stafford Act assistance and FEMA mitigation grant funding, with the exception of the Repetitive Flood Claims program.

[72 FR 61749, Oct. 31, 2007, as amended at 74 FR 47482, Sept. 16, 2009]

PARTS 202–203 [RESERVED]

PART 204—FIRE MANAGEMENT ASSISTANCE GRANT PROGRAM

Subpart A—General

Subpart B—Declaration Process

Subpart C—Eligibility

Subpart D—Application Procedures

Subpart E—Grant Administration

AUTHORITY: Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121–5207; Reorganization Plan No. 3 of 1978, 43 FR 41943; 3 CFR, 1978 Comp., p. 329; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp., p. 376; E.O. 12148, 44 FR 43239, 3 CFR, 1979 Comp., p. 412; and E.O. 12673, 54 FR 12571, 3 CFR, 1989 Comp., p. 214.

SOURCE: 66 FR 57347, Nov. 14, 2001, unless otherwise noted.

Subpart A—General

§ 204.1 Purpose.

This part provides information on the procedures for the declaration and grants management processes for the Fire Management Assistance Grant Program in accordance with the provisions of section 420 of the Stafford Act. This part also details applicant eligibility and the eligibility of costs to be considered under the program. We (FEMA) will actively work with State and Tribal emergency managers and foresters on the efficient delivery of fire management assistance as directed by this part.

§ 204.2 Scope.

This part is intended for those individuals responsible for requesting declarations and administering grants under the Fire Management Assistance Grant Program, as well as those applying for assistance under the program.

§ 204.3 Definitions used throughout this part.

Applicant. A State or Indian tribal government submitting an application to us for a fire management assistance grant, or a State, local, or Indian tribal government submitting an application to the Grantee for a subgrant under an approved fire management assistance grant.

Declared fire. An uncontrolled fire or fire complex, threatening such destruction as would constitute a major disaster, which the Administrator has approved in response to a State's request for a fire management assistance declaration and in accordance with the criteria listed in § 204.21.

b. Appendix B – Sign in sheets and agendas for each meeting

Monroe County Hazard Mitigation Plan Update

Kickoff meeting

August 24, 2011 at 10:30 am

Please sign in

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
1	Larry Ryland	EMA	Larry Ryland 234 Cunningham Dr, Evergreen, Al 36401 larryryland@Att.net
2	Michael Castophany		5668 Blackmon Rd Vredenburgh Al 36481
3	Sr. Kathy Navarre	Vredenburgh	P.O. Box 266 Vred. 36481 kanav@Lycos.com.
4	Faye Palumbo	ASDF	Ray & Faye PaLumbo 95 Kelley Ln. monroeville, AL 36460 fayepa@frontiernet.net
5	Ray Palumbo	"	"
6	Mac Adalard		Lowery T. Ala 3215 Lambert R
7	Robert I Henderson	ASCC	RHENDERSON@ASCC.EDU
8	MAH Jernigan	MCSO	65 North Alabama Av M'ville AL
9	Tom Boatwright	Beatrice PD	PO Box 56 Beatrice Al. 36425
10	Darlene Johnson	City of Monroeville Wastewater	hudsunbr1000@yahoo.com

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
11	Billy Thames	Beatrice Town Council	P.O. Box 316 Beatrice, AL 36425 Thames@frontiernet.net
12	Paul Darnell	DMD Engrs.	P.O. Box 610, Andalusia, AL paul@dmdengineers.com
13	Jeremy McMath	DMD	jeremy@dmdengineers.com
14	Cathy Daily	SWAWA	PO Box 117 Petrey AL cmdaily@frontiernet.net
15	Mary O Smith	SWAWA	1627 Perryville Rd Monroeville, AL 36460
16	Yolanda Jackson	SWAWA	1627 " "
17	Michael Bryant	SWAWA	
18	Trenton Agee	EMA	5c tcagee1940@yahoo.com
19	Bob Steward	M.C. E-911	P.O. Box 117 Monroeville, AL 36461
20			
21	Lena White	Monroe Co. Comm.	P.O. Box 8 Minimum, AL. Courthouse
22	Donna Jordan	MCC	Courthouse
23		Town of Beatrice	bcwatson@frontiernet.net

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
24	David Stewart	WMFC Radio	wmfc@frontiernet.net 575-3281
25	Bob Crawford	City of Monroeville	bob.crawford@yahoo.com 575-2081
26	Norman Gholston	EMA	
24	Cakkie Gholston		Jesseisman@frontiernet.Net
28	Paul Lindsey/ Jersey Countryman	Excel Town Police Dept	765-2558
29		MMCEDA	(251) 564-1610
30		MMCEDA	251/743.1372 ghaab@mmceda.com
31		ADPH	251-212-0053
32		Monroe Co. Heritage Museum	251-575-7433
33	Mike Stoops	MCEMA	
34	Robert English	Monroe County	(251) 743-3672
35	Katie Tucker	EMA	251-743-3259 secretary@monroeema.com
36	Thomas Booker	Director EMA	

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
37	Christi Dunn	Town of Beatrice	
38	David Steele	Attorney Town of Beatrice	
39	Thelma McDaniel	Council member	
40	Tommy Booker	MONROE Co EMA & BEATRICE FIRE DEPT	888-211-3840
41	Alicia Steele	Council	
42		Monroe County Commission	
43	Barbara Turner	MCBOE City Council	251-575-7897
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Monroe County Hazard Mitigation Plan Update

October 19, 2011 at 10:30 am

Please sign in

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
1	Mary O Smith	South West ala Water	251-564-2727
2	Katie Tucker	EMA	251-743-3259
3	Tom Boatwright	Beatrice P.D.	1888-201-9507
4	Jerry Courtyne	Mayor Excel	251 765-2558
5	J.T. Johnston	FEMA	251-238-5289
6	Lena Keith	Co. Comm	251 743-4107
7	Donna Jordan	CO. Comm	251-743-4107
8	Henry McCant	South west ala Water	251-282-4928
9	Bob Steward	E911	251-575-9216
10	Stan Watson	Town of Beatrice Water Dept	888-258-7542
11	Greg Norris	Monroe County	251-743-4107

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
11	Jenny Countryman	Mayor Town of Excel	251 765- 2558 Town of Excel@conexus wireless. Net
12	David Day	Asst. Fire Chief Monroe Co.	P.O. Box 336 Mexia, H. Frisco 36458 SQ hot. .com 251-267-2527
13	Donna Jordan	MCcomm	
14	Greg Norris	MC Commission	
15	Mary Hawthorne	American Red Cross	
16	Beverly Knight	American RedCross	
17	George Austin	American Red Cross	austing@redcrossalcoast.org
18	Jim Boatright	Beatrice PD	
19	Ryan Lowell	Monroeville Fire Dept.	251-5752084
20	Wan Tanner	Monroe EMA	
21	Dale Sims	Temple Inland	dalesims@templeinland.com
22	Keith White	Monroeville Police Dept	
23	Christi Dunn	Beatrice Town Hall	251-789-2241

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
24	Mike Skaggs	MCEMA	
25	Gwendolyn Richardson	MCC	mccomm@frontiernet.net
26	Allison Steele	Town of Beatrice	allisonhsteele@gmail.com
24	David Steele	"	davidfsteele2@gmail.com
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Monroe County Hazard Mitigation Plan date

Public Meeting

December 6, 2011

Please sign in

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
1	ROBERT ENGLISH	MONROE CO ENGINEER	P.O. Box 6 Monroeville, AL rme@frontiernet.net (251) 743-3672
2	TRENTON WHEE	Monroe Co. EMA	544 Clairmont Ave 251-564-6542 Acgee1940@yahoo.com
3	GENE RAMER	SOUTHAIL WATER	1041 Robinson CR Rd PETERMAN, AL 36471 251-564-4958
4	Tom Lomenick	Monroeville City Council	251-575-4982 LOMENICK@IRBY.COM
5	Marya Smith	South West Alabama	
6	J. Johnston	EMA	
7	Lina Welch	Co. Comm.	
8	Jason A. Well	Co. Engineering	redwelch@frontier.net
9	Cathy Day	SWA Water Authority	
10	Marvin Day	11	

Please Sign In

	Name	Organization/ Affiliation	Contact Information (address, e-mail address and telephone)
12	Mike Stoops	MCEMA	PO Box 35 Excel, AL mws@frontiernet.net
13	ROBERT ENGLISH	MONROE COUNTY	rme@frontiernet.net (251) 743-3672
14	BILLY THAMES	TOWN OF BEATRICE	(251)-789-2687
15	Christi Dunn	Town of Beatrice	PO Box 56 Beatrice AL 36425
16	Cathy Daley	SWAWR	PO Box 117 Peterman AL 36471
17	PAUL Lindsey	Town of Excel	3199 Hwy 136 West Monroeville, AL. 36460
18	David Steele	Town of Beatrice	501 Basel St Beatrice, AL 36425
19	ALLISON STEELE	Town of Beatrice	501 Basel St Beatrice, AL 36425
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c. Appendix C – Resolutions by each entity adopting the Plan Update

RESOLUTION # 06042012

Adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan

Whereas, the Town of Beatrice recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments;

Whereas, an adopted Local Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the Town of Beatrice fully participated in the FEMA-prescribed mitigation planning process to prepare this local hazard mitigation plan; and

Whereas, the Alabama Emergency Management Agency and Federal Emergency Management Agency, Region IV officials have reviewed the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan and approved it contingent upon this official adoption of the participating governing body;

Whereas, the Town of Beatrice desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Monroe County Local Hazard Mitigation Plan;

Whereas, adoption by the governing body for the Town of Beatrice, demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan.

Whereas, adoption of this legitimacies the plan and authorizes responsible agencies to carry out their responsibilities under the plan.

Now, therefore, be it resolved, that the Town of Beatrice adopts the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan; and

Be it further resolved, the Town of Beatrice will submit this adoption resolution to the Alabama Emergency Management Agency officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000.

APPROVED AND ADOPTED by the Town of Beatrice on June 4, 2012.

Alan Bishop 6.4.12

Alan Bishop, Mayor Date

Christi Dunn 6.4.12

Christi Dunn, Clerk Date

RESOLUTION # 06112012

Adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan

Whereas, the Town of Excel recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments;

Whereas, an adopted Local Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the Town of Excel fully participated in the FEMA-prescribed mitigation planning process to prepare this local hazard mitigation plan; and

Whereas, the Alabama Emergency Management Agency and Federal Emergency Management Agency, Region IV officials have reviewed the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan and approved it contingent upon this official adoption of the participating governing body;

Whereas, the Town of Excel desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan;

Whereas, adoption by the governing body for the Town of Excel, demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan.

Whereas, adoption of this legitimacies the plan and authorizes responsible agencies to carry out their responsibilities under the plan.

Now, therefore, be it resolved, that the Town of Excel adopts the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan; and

Be it further resolved, the Town of Excel will submit this adoption resolution to the Alabama Emergency Management Agency officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000.

APPROVED AND ADOPTED by the Town of Excel on June 11, 2012.

Jenny Countryman, Mayor Date

Loretta Bradley 6/11/12

Loretta Bradley, Clerk Date

Expiration
1-22-15

RESOLUTION # _____

Adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan

Whereas, the Town of Frisco City recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments;

Whereas, an adopted Local Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the Town of Frisco City fully participated in the FEMA-prescribed mitigation planning process to prepare this local hazard mitigation plan; and

Whereas, the Alabama Emergency Management Agency and Federal Emergency Management Agency, Region IV officials have reviewed the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan and approved it contingent upon this official adoption of the participating governing body;

Whereas, the Town of Frisco City desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan;

Whereas, adoption by the governing body for the Town of Frisco City, demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan.

Whereas, adoption of this legitimacies the plan and authorizes responsible agencies to carry out their responsibilities under the plan.

Now, therefore, be it resolved, that the Town of Frisco City adopts the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan; and

Be it further resolved, the Town of Frisco City will submit this adoption resolution to the Alabama Emergency Management Agency officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000.

APPROVED AND ADOPTED by the Town of Frisco City on June 12, 2012.

Sue Starr 6-12-2012

Sue Starr, Mayor Date

Charlene Harrison 6-12-2012

Charlene Harrison, Clerk Date

RESOLUTION # 06122012

Adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan

Whereas, the Monroe County Commission recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments;

Whereas, an adopted Local Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the Monroe County Commission fully participated in the FEMA-prescribed mitigation planning process to prepare this local hazard mitigation plan; and

Whereas, the Alabama Emergency Management Agency and Federal Emergency Management Agency, Region IV officials have reviewed the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan and approved it contingent upon this official adoption of the participating governing body;

Whereas, the Monroe County Commission desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan;

Whereas, adoption by the governing body for the Monroe County Commission, demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan.

Whereas, adoption of this legitimacies the plan and authorizes responsible agencies to carry out their responsibilities under the plan.

Now, therefore, be it resolved, that the Monroe County Commission adopts the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan; and

Be it further resolved, the Monroe County Commission will submit this adoption resolution to the Alabama Emergency Management Agency officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000.

APPROVED AND ADOPTED by the Monroe County Commission on June 12, 2012.

Greg Norris, Probate Judge — 6/12/2012 Date

Gwendolyn D Richardson — 6/12/2012

Gwen Richardson, County Administrator — Date

RESOLUTION # 12-06-002

Adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan

Whereas, the City of Monroeville recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments;

Whereas, an adopted Local Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the City of Monroeville fully participated in the FEMA-prescribed mitigation planning process to prepare this local hazard mitigation plan; and

Whereas, the Alabama Emergency Management Agency and Federal Emergency Management Agency, Region IV officials have reviewed the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan and approved it contingent upon this official adoption of the participating governing body;

Whereas, the City of Monroeville desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan;

Whereas, adoption by the governing body for the City of Monroeville, demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan.

Whereas, adoption of this legitimacies the plan and authorizes responsible agencies to carry out their responsibilities under the plan.

Now, therefore, be it resolved, that the City of Monroeville adopts the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan; and

Be it further resolved, the City of Monroeville will submit this adoption resolution to the Alabama Emergency Management Agency officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000.

APPROVED AND ADOPTED by the City of Monroeville on June 5, 2012.

Mike Kennedy, Mayor — 6/5/12 Date

Toni McKelvey, Clerk — 6/5/12 Date

RESOLUTION # _____

Adopting the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan

Whereas, the Town of Vredenburgh recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments;

Whereas, an adopted Local Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the Town of Vredenburgh fully participated in the FEMA-prescribed mitigation planning process to prepare this local hazard mitigation plan; and

Whereas, the Alabama Emergency Management Agency and Federal Emergency Management Agency, Region IV officials have reviewed the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan and approved it contingent upon this official adoption of the participating governing body;

Whereas, the Town of Vredenburgh desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Sacramento County Local Hazard Mitigation Plan;

Whereas, adoption by the governing body for the Town of Vredenburgh, demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan.

Whereas, adoption of this legitimacies the plan and authorizes responsible agencies to carry out their responsibilities under the plan.

Now, therefore, be it resolved, that the Town of Vredenburgh adopts the Monroe County Multi-Jurisdiction Natural Hazards Mitigation Plan; and

Be it further resolved, the Town of Vredenburgh will submit this adoption resolution to the Alabama Emergency Management Agency officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000.

APPROVED AND ADOPTED by the Town of Vredenburgh on June 12, 2012.

Delois Adams 6-12-12

Delois Adams, Mayor Date

Pricilla M. Castophney 6-12-12

Pricilla M. Castophney, Clerk Date

d. Appendix D– Completed Local Mitigation Crosswalk

U.S. Department of Homeland Security
FEMA Region IV
3003 Chamblee Tucker Road
Atlanta, GA 30341

FEMA

May 23, 2012

Ms. Debbie Peery
State Hazard Mitigation Officer
Preparedness Division
Alabama Emergency Management Agency
Post Office Drawer 2160
Clanton, Alabama 35046

Reference: Multi-jurisdictional Hazard Mitigation Plan Update: Monroe County

Dear Ms. Peery:

This is to confirm that we have completed a Federal/State review of the Monroe County Hazard Mitigation Plan Update for compliance with the federal hazard mitigation planning standards contained in 44 CFR 201.6(b)-(d). We have determined that the Monroe County Hazard Mitigation Plan Update is compliant with federal standards, subject to formal community adoption.

In order for our office to issue formal approval of the plan, Monroe County must submit adoption documentation and document that the final public meeting occurred. Upon submittal of these items to our office, we will issue formal approval of the Monroe County Hazard Mitigation Plan.

For further information, please do not hesitate to contact Jerry Gereaux, of the Hazard Mitigation Assistance Branch, at (770) 220-5372 or Linda L. Byers, of my staff, at (770) 220-5498.

Sincerely,

Robert E. Lowe, Chief
Risk Analysis Branch
Mitigation Division

INSTRUCTIONS FOR USING THE PLAN REVIEW CROSSWALK FOR REVIEW OF LOCAL MITIGATION PLANS

Attached is a Plan Review Crosswalk based on the ***Local Multi-Hazard Mitigation Planning Guidance***, published by FEMA in July, 2008. This Plan Review Crosswalk is consistent with the *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (Stafford Act), as amended by Section 322 of the *Disaster Mitigation Act of 2000* (P.L. 106-390), the *National Flood Insurance Act of 1968,* as amended by the *National Flood Insurance Reform Act of 2004* (P.L. 108-264) and *44 Code of Federal Regulations (CFR) Part 201 – Mitigation Planning,* inclusive of all amendments through October 31, 2007.

SCORING SYSTEM
N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.
S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Each requirement includes separate elements. All elements of a requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a summary score of "Satisfactory." A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing.

When reviewing single jurisdiction plans, reviewers may want to put an N/A in the boxes for multi-jurisdictional plan requirements. When reviewing multi-jurisdictional plans, however, all elements apply. States that have additional requirements can add them in the appropriate sections of the *Local Multi-Hazard Mitigation Planning Guidance* or create a new section and modify this Plan Review Crosswalk to record the score for those requirements. Optional matrices for assisting in the review of sections on profiling hazards, assessing vulnerability, and identifying and analyzing mitigation actions are found at the end of the Plan Review Crosswalk.

The example below illustrates how to fill in the Plan Review Crosswalk.:

Assessing Vulnerability: Overview

Requirement §201.6(c)(2)(ii): *[The risk assessment **shall** include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description **shall** include an overall summary of each hazard and its impact on the community.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan include an **overall summary** description of the jurisdiction's **vulnerability** to each hazard?	Section II, pp. 4-10	The plan describes the types of assets that are located within geographically defined hazard areas as well as those that would be affected by winter storms.		
B. Does the **new or updated** plan address the **impact** of each hazard on the jurisdiction?	Section II, pp. 10-20	The plan does not address the impact of two of the five hazards addressed in the plan. **Required Revisions:** • Include a description of the impact of floods and earthquakes on the assets. **Recommended Revisions:** This information can be presented in terms of dollar value or percentages of damage.		
		SUMMARY SCORE		

LOCAL MITIGATION PLAN REVIEW SUMMARY

The plan cannot be approved if the plan has not been formally adopted. Each requirement includes separate elements. All elements of the requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a score of "Satisfactory." Elements of each requirement are listed on the following pages of the Plan Review Crosswalk. A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing. Reviewer's comments must be provided for requirements receiving a **"Needs Improvement"** score.

Prerequisite(s) (Check Applicable Box)	**NOT MET**	**MET**
1. Adoption by the Local Governing Body: §201.6(c)(5) OR	N/A	
2. Multi-Jurisdictional Plan Adoption: §201.6(c)(5) **AND**	X	
3. Multi-Jurisdictional Planning Participation: §201.6(a)(3)		X

Planning Process	**N**	**S**
4. Documentation of the Planning Process: §201.6(b) and §201.6(c)(1)	X	

Risk Assessment	**N**	**S**
5. Identifying Hazards: §201.6(c)(2)(i)		X
6. Profiling Hazards: §201.6(c)(2)(i)		X
7. Assessing Vulnerability: Overview: §201.6(c)(2)(ii)		X
8. Assessing Vulnerability: Addressing Repetitive Loss Properties. §201.6(c)(2)(ii)		X
9. Assessing Vulnerability: Identifying Structures, Infrastructure, and Critical Facilities: §201.6(c)(2)(ii)(B)		X
10. Assessing Vulnerability: Estimating Potential Losses: §201.6(c)(2)(ii)(B)		X
11. Assessing Vulnerability: Analyzing Development Trends: §201.6(c)(2)(ii)(C)		X
12. Multi-Jurisdictional Risk Assessment: §201.6(c)(2)(iii)		X

*States that have additional requirements can add them in the appropriate sections of the *Local Multi-Hazard Mitigation Planning Guidance* or create a new section and modify this Plan Review Crosswalk to record the score for those requirements.

SCORING SYSTEM

Please check one of the following for each requirement.

N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Mitigation Strategy	**N**	**S**
13. Local Hazard Mitigation Goals: §201.6(c)(3)(i)		X
14. Identification and Analysis of Mitigation Actions: §201.6(c)(3)(ii)		X
15. Identification and Analysis of Mitigation Actions: NFIP Compliance. §201.6(c)(3)(ii)		X
16. Implementation of Mitigation Actions: §201.6(c)(3)(iii)		X
17. Multi-Jurisdictional Mitigation Actions: §201.6(c)(3)(iv)		X

Plan Maintenance Process	**N**	**S**
18. Monitoring, Evaluating, and Updating the Plan: §201.6(c)(4)(ii)		X
19. Incorporation into Existing Planning Mechanisms: §201.6(c)(4)(ii)		X
20. Continued Public Involvement: §201.6(c)(4)(iii)		X

Additional State Requirements*	**N**	**S**
Insert State Requirement		
Insert State Requirement		
Insert State Requirement		

LOCAL MITIGATION PLAN APPROVAL STATUS

PLAN NOT APPROVED	X
See Reviewer's Comments	
PLAN APPROVED	

Local Mitigation Plan Review and Approval Status

Jurisdiction: Monroe County	**Title of Plan:** Monroe County Multi-jurisdictional Natural Hazards Mitigation Plan	**Date of Plan:** January 2012
Local Point of Contact: J. T. Johnson	**Address:**	
Title: Director		
Agency: Monroe County EMA		
Phone Number:	**E-Mail:**	

State Reviewer: Valerie Wallace (comments in blue) Valerie Wallace (2nd rev. comments in red)	**Title:** Mitigation Planner Mitigation Planner	**Date:** 03/08/2012 03/29/2012; 5/23/2012 - Updated to include Bd. Of Educ. And Water Authority.

FEMA Reviewer: Brenda Stirrup Linda L. Byers (QC)	**Title:** Planning Specialist R4 Lead Planning Specialist	**Date:** April 24, 2012 May 22, 2012
Date Received in FEMA Region IV	April 16, 2012	
Plan Not Approved	May 22, 2012	
Plan Approved		
Date Approved		

Jurisdiction:	**DFIRM****		**NFIP Status***			
	In Plan	**NOT in Plan**	**Y**	**N**	**N/A**	**CRS Class**
1. Monroe County		X	X			10
2.City of Monroeville		X	X			10
3.Town of Beatrice (in CSB as not participating)		X		X		10
4.Town of Frisco City		X			X	10
5. Town of Excel		X			X	10

6. Town of Vredenburgh		X			X	10
7. Monroe County Board of Education		X			X	
8. Southwest Alabama Water Authority		X			X	

*** Notes: Y = Participating N = Not Participating N/A = Not Mapped ** FEMA ONLY**

PREREQUISITE(S)

1. Adoption by the Local Governing Body

***Requirement §201.6(c)(5)*:** *[The local hazard mitigation plan **shall** include] documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council).*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE	
			NOT MET	MET
A. Has the local governing body adopted **new or updated** plan?		Will take place after final approval This is a multi-jurisdictional plan update.	N/A	
B. Is supporting documentation, such as a resolution, included?		Will take place after final approval This is a multi-jurisdictional plan update.	N/A	
		SUMMARY SCORE	N/A	

2. Multi-Jurisdictional Plan Adoption

***Requirement §201.6(c)(5)*:** *For multi-jurisdictional plans, each jurisdiction requesting approval of the plan **must** document that it has been formally adopted.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE NOT MET	SCORE MET
A. Does the **new or updated** plan indicate the specific jurisdictions represented in the plan?	Section 3, PP. 21, 24	The updated plan indicates that the following entities/jurisdictions are represented in the plan: 1. Monroe County Commission 2. City of Monroeville 3. Town of Beatrice 4. Town of Excel 5. Town of Frisco City 6. Town of Vredenburgh 7. Monroe County Board of Education 8. Southwest Alabama Water Authority		X
B. For each jurisdiction, has the local governing body adopted the **new or updated** plan?		Will take place after final approval The local governing bodies have not adopted the Updated Plan. **REQUIRED:** The Updated Plan must be adopted within one calendar year of FEMA's "approval pending adoption" of the Updated Plan. For more information, see "Multi-Jurisdictional Plan Adoption", in the Local Multi-Hazard Mitigation Planning Guidance, Pages 19-20.	X	
C. Is supporting documentation, such as a resolution, included for each participating jurisdiction?		Will take place after final approval Supporting documentation, such as a resolution, is not included in the Updated Plan. **REQUIRED REVISION:** The Updated Plan shall include a copy of the resolution or other documentation of formal adoption of the Updated Plan within one calendar year. For more information, see "Multi-Jurisdictional Plan Adoption", in the Local Multi-Hazard Mitigation Planning Guidance, Pages 19-20.	X	
		SUMMARY SCORE	X	

3. Multi-Jurisdictional Planning Participation

***Requirement §201.6(a)(3)*:** *Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process … Statewide plans will not be accepted as multi-jurisdictional plans.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE NOT MET	SCORE MET
A. Does the **new or updated** plan describe **how** each jurisdiction participated in the plan's development?	Section 3, Pp. 17-21	The updated plan indicated that each jurisdiction participated in plan update meetings from August 2011 to January 2012. For representatives that were unable to attend, agendas and committee assignments were faxed, e-mailed, or communicated via telephone or personal meetings. Representatives from each jurisdiction reviewed the previous plan and identified changes in their jurisdiction's capabilities. Along with other members of the team, representatives from the jurisdictions updated the risk assessment and mitigation strategies.		X
B. Does the updated plan identify all participating jurisdictions, including new, continuing, and the jurisdictions that no longer participate in the plan?	Section 3, Pp. 21, 24	Participating jurisdictions are listed, but new or continuing jurisdictions, or those that are no longer participating are not identified. The new or continuing jurisdictions have been identified. The updated plan identifies all participating jurisdictions, including those that are new and continuing as follows: New Participating Entities Monroe County Board of Education Southwest Alabama Water Authority Continuing Jurisdictions Monroe County Commission City of Monroeville Town of Beatrice Town of Excel Town of Frisco City Town of Vredenburgh All jurisdictions from the previous plan participated in the plan update.		X
		SUMMARY SCORE		X

PLANNING PROCESS: *§201.6(b): An open public involvement process is essential to the development of an effective plan.*

4. Documentation of the Planning Process

Requirement §201.6(b): *In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process **shall** include:*
(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and
(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

Requirement §201.6(c)(1): *[The plan **shall** document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan provide a narrative description of the process followed to prepare the **new or updated** plan?	Section 3, Pp. 17-21	While the meetings are described, there is little description of the actual process followed. A narrative description of the process has been added. The plan provides a narrative description of the process that was followed to update the plan.		X
B. Does the **new or updated** plan indicate who was involved in the **current** planning process? (For example, who led the development at the staff level and were there any external contributors such as contractors? Who participated on the plan committee, provided information, reviewed drafts, *etc*.?)	Section 3, Pp. 17-21; Appendix B	Sign-in sheets for the meetings are included, but there is no listing of which representatives served on which committees, etc. The statement that" all representatives who attended the meetings were participants on each committee" has been added. The updated plan indicated who was involved in the plan update process. The Hazard Mitigation Planning Committee (Committee) under the leadership of the Monroe County Emergency Management Director managed the initial phases of the plan update. Later in the process, a consultant was hired to facilitate the remainder of the update process. All jurisdictions were represented on the committee, along with numerous agencies and organizations. Sign-in sheets for committee meetings are included in Appendix B.		X

4. Documentation of the Planning Process

Requirement §201.6(b): *In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process* ***shall*** *include:*
(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and
(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

Requirement §201.6(c)(1): *[The plan* ***shall*** *document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.*

	Location in the		SCORE	
C. Does the **new or updated** plan indicate how the public was involved? (Was the public provided an opportunity to comment on the plan during the drafting stage and prior to the plan approval?)	Section 3, Pp. 17-23; Appendix B	The plan indicates that during the drafting stage, the public was provided opportunities to comment on the plan at three public meetings, which were held on August 24, 2011, October 19, 2011 and December 6, 2011. A meeting notice as well as sign-in sheets are included n the plan. The plan states that for each meeting, notices were posted in the courthouse and City Halls throughout Monroe County. An ad was published in the Monroe Journal advertising the public meeting held on December 6, 2011. The public was not provided an opportunity to comment prior to plan approval. The plan further states that prior to adopting the plan, each jurisdiction will hold a public hearing at each of their Commission and Council meetings. **REQUIRED REVISION:** Document that the public was provided an opportunity to comment on the Updated Plan prior to the approval. For more information, see "Documentation of the Planning Process", in the Local Multi-Hazard Mitigation Planning Guidance, Pages 26 – 28.	X	
D. **Does the new or updated plan discuss the** opportunity for neighboring communities, agencies, businesses, academia, nonprofits, and other interested parties to be involved in the planning process?	Section 3, Pp 17-21; Appendix B	Several agencies such as the following were provided the opportunity to be involved in the planning process: • Alabama Department of Environmental Management • American Red Cross • Alabama Southern Community College • Monroe County Hospital • South Alabama Gas • Butler County • Clarke County		X

4. Documentation of the Planning Process

Requirement §201.6(b): *In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process **shall** include:*
(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and
(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

Requirement §201.6(c)(1): *[The plan **shall** document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.*

	Location in the		SCORE	
		Many of the invitees participated on the Hazard Mitigation Planning Committee and attended meetings.		
E. Does the planning process describe the review and incorporation, if appropriate, of existing plans, studies, reports, and technical information?	Section 3, P. 24	The plan states that there are no building codes enforced in Monroe County, nor any comprehensive or zoning plans. The following existing documents indirectly coordinate with the Monroe County Hazard Mitigation Plan, and were checked to make sure that the proposed policies in plan do not conflict with these existing plans: • Monroe County Emergency Operations Plan • U.S. 2010 Census • Alabama State Data Center Population Projections 2000-2025 • NOAA and NWS records: past occurrence data • Flood Insurance Rate Maps • Forest Statistics for Alabama • State of Alabama State Hazard Mitigation Plan • Geological Hazards Information for the Geological Survey of Alabama • Monroe County Soils Survey		X
F. Does the updated plan document how the planning team reviewed and analyzed each section of the plan and whether each section was revised as part of the update process?	Section 3, P. 24	The plan provides an overview of the process the planning team used to review each sections and whether each section was revised as part of the update process.		X
		SUMMARY SCORE	X	

RISK ASSESSMENT: *§201.6(c)(2): The plan shall include a risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.*

5. Identifying Hazards

Requirement §201.6(c)(2)(i): *[The risk assessment **shall** include a] description of the type … of all natural hazards that can affect the jurisdiction.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan include **a description** of the types of **all natural hazards** that affect the jurisdiction?	Section 4, Pp. 25-60	The updated plan includes a description of the following ten types of natural hazards that affect the jurisdictions: 1. Hurricane/tropical storm 2. Flood 3. Severe storm 4. Tornado 5. Wildfire 6. Drought/heat wave 7. Winter storm/freeze 8. Levee/dam failure 9. Landslide 10. Earthquake		X
		SUMMARY SCORE		X

6. Profiling Hazards

Requirement §201.6(c)(2)(i): *[The risk assessment **shall** include a] description of the … location and extent of all natural hazards that can affect the jurisdiction. The plan **shall** include information on previous occurrences of hazard events and on the probability of future hazard events.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the risk assessment identify the **location** (*i.e.*, geographic area affected) of each natural hazard addressed in the **new or updated** plan?	Section 4, Pp. 25-63	The risk assessment identifies the location of each natural hazard that is addressed in the updated plan. The plan states that the only identified hazard that is area specific within the county is flooding.		X
B. Does the risk assessment identify the **extent** (*i.e.*, magnitude or severity) of each hazard addressed in the **new or updated** plan?	Section 4, Pp. 25-63	The risk assessment identifies the magnitude or severity of each hazard that is addressed in the updated plan. A discussion of what the jurisdictions could anticipate was supported by technical measures and scientific scales such as feet, acreage, wind speed, the Richter Scale, and the		X

		Enhanced Fujita Scale.		
C. Does the plan provide information on **previous occurrences** of each hazard addressed in the **new or updated** plan?	Section 4, Pp. 25-63	The plan provides information on previous occurrences of each hazard that is addressed in the updated plan, as applicable. The plan states that no dam/levee failure events have ever been reported in Monroe County. In addition, the plan states that only one recorded landslide event has occurred in Monroe County.		**X**
D. Does the plan include the **probability of future events** (*i.e.*, chance of occurrence) for each hazard addressed in the **new or updated** plan?	Section 4, Pp. 25-63	The plan addresses the chance of occurrence for each natural hazard that is addressed in the updated plan, where such a determination could be made. For example, for dam failure, the plan states that the probability of future occurrences cannot be characterized on a countywide basis because of the lack of information available.		**X**
		SUMMARY SCORE		**X**

7. Assessing Vulnerability: Overview

Requirement §201.6(c)(2)(ii): *[The risk assessment **shall** include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description **shall** include an overall summary of each hazard and its impact on the community.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan include an **overall summary** description of the jurisdiction's **vulnerability** to each hazard?	Section 4, Pp. 63-72	Table shows vulnerable population by hazard The updated plan includes a general description of the types of structures that are affected by the hazards. Critical facilities and infrastructure are included in map format in the plan. Flood is the only identified hazard which is area specific. Accordingly, all buildings and critical facilities are exposed to all remaining hazards. The building exposure for flood is included in the plan. Table 18 in the plan lists each jurisdiction's overall risks to the natural hazards.		X
B. Does the **new or updated** plan address the **impact** of each hazard on the jurisdiction?	Section 4, Pp. 25-73	The updated plan addresses the impact of each hazard on the jurisdictions.		X
		SUMMARY SCORE		X

8. Assessing Vulnerability: Addressing Repetitive Loss Properties

Requirement §201.6(c)(2)(ii): *[The risk assessment] **must** also address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged floods.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the new or updated plan describe vulnerability in terms of the types and numbers of *repetitive loss properties* located in the identified hazard areas?	Section 4, P. 71	Table shows properties vulnerable to flood, but none are designated as repetitive loss/NFIP Statement added: "There are no repetitive loss properties in Madison County." FEMA reviewer concurs with State reviewer's comments.		X
		SUMMARY SCORE		X

9. Assessing Vulnerability: Identifying Structures

Requirement §201.6(c)(2)(ii)(A): *The plan **should** describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S

A. Does the **new or updated** plan describe vulnerability in terms of the **types and numbers** of **existing** buildings, infrastructure, and critical facilities located in the identified hazard areas?	Section 4, Pp. 63-71	The updated plan describes vulnerability in terms of the types and numbers of existing buildings, Infrastructure and critical facilities that are located in the identified hazard areas.		**X**
B. Does the **new or updated** plan describe vulnerability in terms of the **types and numbers** of **future** buildings, infrastructure, and critical facilities located in the identified hazard areas?	Section 4, P. 72	This requirement is addressed in the plan. The plan describes vulnerability in terms of the types and numbers of future vulnerable structures that are located in the identified hazard areas. The data represents existing structures and assumes a zero growth rate. Accordingly, no future structures are currently planned.		**X**
		SUMMARY SCORE		**X**

10. Assessing Vulnerability: Estimating Potential Losses

Requirement §201.6(c)(2)(ii)(B): *[The plan **should** describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate … .*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan estimate **potential dollar losses** to vulnerable structures?	Section 4, Pp. 70-71	The updated plan includes an estimate of potential dollar losses for existing vulnerable structures. The plan indicates that there will be a zero growth rate in vulnerable structures.		X
B. Does the **new or updated** plan describe the **methodology** used to prepare the estimate?	Section 4, Pp.63, 70-72	The plan indicates that the methodology that was used to determine the estimate for existing structures was derived from data from the HAZUS database and property assessments from the Monroe County Revenue Commission. The plan indicates that there will be a zero growth rate in vulnerable structures.		X
		SUMMARY SCORE		X

11. Assessing Vulnerability: Analyzing Development Trends

Requirement §201.6(c)(2)(ii)(C): *[The plan **should** describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe land uses and development trends?	Section 4, P. 73	The updated plan describes land uses and development trends. The plan states that there has been negative growth of industries and jobs. The County's population increased by 1.5% during the 1990-2000. Only the Town of Excel showed positive growth in population. Growth and development could accelerate with the possible expansion of U.S. Highway 84 from two to four lanes. Monroe County heritage museums have advanced Monroe County's tourism industry.		X

		SUMMARY SCORE		**X**

12. Multi-Jurisdictional Risk Assessment

Requirement §201.6(c)(2)(iii): *For multi-jurisdictional plans, the risk assessment **must** assess each jurisdiction's risks where they vary from the risks facing the entire planning area.*

Element	**Location in the Plan** (section or annex and page #)	**Reviewer's Comments**	**SCORE** N	**SCORE** S
A. Does the **new or updated** plan include a risk assessment for each participating jurisdiction as needed to reflect unique or varied risks?	Section 4, Pp. 25-74	The updated plan includes a risk assessment for each participating jurisdiction, as needed, to reflect unique or varied risks. The plan states that the Towns of Beatrice, Excel and Frisco City do not have any significant special flood hazard areas. Data is provided that ranks each jurisdiction's risk to each of the natural hazards. All jurisdictions are equally at risk for tornadoes, severe storms, earthquakes, wildfires, extreme cold, winter storms, drought and extreme heat. Unincorporated Monroe County is most at risk for flooding.		**X**
		SUMMARY SCORE		**X**

MITIGATION STRATEGY: *§201.6(c)(3): The plan shall include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.*

13. Local Hazard Mitigation Goals

Requirement §201.6(c)(3)(i): *[The hazard mitigation strategy **shall** include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A Does the **new or updated** plan include a description of mitigation **goals** to reduce or avoid long-term vulnerabilities to the identified hazards?	Section 5, Pp. 81-90	The updated plan includes a description of seven mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.		X
		SUMMARY SCORE		X

14. Identification and Analysis of Mitigation Actions

Requirement §201.6(c)(3)(ii): *[The mitigation strategy **shall** include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan identify and analyze a **comprehensive range** of specific mitigation actions and projects for each hazard?	Section 5, Pp. 75-140	The updated plan identifies and analyzes a comprehensive range of specific mitigation actions and projects for each hazard.		X
B Do the identified actions and projects address reducing the effects of hazards on **new** buildings and infrastructure?	Section 5, Pp. 75-140	The plan indicates that there will be a zero growth rate in vulnerable structures. However, identified actions and projects address reducing the effects of hazards on new structures. An example is as follows: promote good construction practices and proper code enforcement to eliminate most structural problems during natural hazard events.		X
C. Do the identified actions and projects address reducing the effects of hazards on **existing** buildings and infrastructure?	Section 5, Pp. 75-140	The identified actions and projects address reducing the effects of hazards on existing structures. An example is to install water infrastructure and fire hydrants in rural areas.		X
		SUMMARY SCORE		X

15. Identification and Analysis of Mitigation Actions: National Flood Insurance Program (NFIP) Compliance

Requirement: §201.6(c)(3)(ii): *[The mitigation strategy] must also address the jurisdiction's participation in the National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements, as appropriate.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the new or updated plan describe the jurisdiction (s) participation in the NFIP?	Section 5, Pp. 76-78	Not all jurisdictions participate, but those that do are listed. The plan states that the Monroe County and Monroeville are the only jurisdictions that participate in the NFIP. The municipalities of Frisco City, Excel, Beatrice and Vredenburgh do not participate in the NFIP.		X
B. Does the mitigation strategy identify, analyze and prioritize actions related to continued compliance with the NFIP?	Section 5, P 81	The mitigation strategy identifies, analyzes and prioritizes actions that are related to continued compliance with the NFIP. Two examples include the following: • Maintain a centralized countywide natural hazards and risk assessment database in GIS that is accessible to all personnel including flood zones, geo hazards, major drainage structures, dams/levees; tornado tracks. • Effectively administer and enforce local floodplain Management regulations.		X
		SUMMARY SCORE		X

16. Implementation of Mitigation Actions

Requirement: §201.6(c)(3)(iii): *[The mitigation strategy section **shall** include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization **shall** include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** mitigation strategy include how the actions are **prioritized**? (For example, is there a discussion of the process and criteria used?)	Section 5, P. 78	The updated mitigation strategy includes how the actions are prioritized. Decisions were based on findings of the risk assessment and capability assessment and discussions with members of the Committee.		X
B. Does the **new or updated** mitigation strategy address how the actions will be implemented and administered,		Strategy does not address responsible department, existing/potential resources, or timeframe.		

including the responsible department, existing and potential resources and the timeframe to complete each action?	Section 5	This requirement has been addressed. The updated mitigation strategy addresses how the actions will be implemented and administered, including the responsible department, funding sources and existing potential resources, and the timeframe to complete each action.		**X**
C. Does the **new or updated** prioritization process include an emphasis on the use of a **cost-benefit review** to maximize benefits?	Section 5, Pp. 79-80	Prioritization of the mitigation actions included an evaluation of whether the benefits are maximized and outweigh the associated costs.		**X**
D. Does the **updated** plan identify the completed, deleted or deferred mitigation actions as a benchmark for progress, and if activities are unchanged (*i.e.*, deferred), does the updated plan describe why no changes occurred?		This section was not addressed. This section has been addressed. This requirement is addressed in element 17B.		**N/A**
		SUMMARY SCORE		**X**

17. Multi-Jurisdictional Mitigation Actions

Requirement §201.6(c)(3)(iv): *For multi-jurisdictional plans, there **must** be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A Does the **new or updated** plan include identifiable **action items** for each jurisdiction requesting FEMA approval of the plan?	Section 5, Pp. 81-140	The updated plan includes identifiable action items for each jurisdiction that is requesting FEMA approval of the plan. Water infrastructure and school related mitigation actions are also included in the plan.		X
B. Does the **updated** plan identify the completed, deleted or deferred mitigation actions as a benchmark for progress, and if activities are unchanged (*i.e.*, deferred), does the updated plan describe why no changes occurred?	Section 5, Pp. 79-140	This section was not addressed. This section has been addressed. The updated plan provides a list of completed and deleted mitigation actions. In a separate table, the new and/or continued mitigation actions are listed by jurisdiction. Also, some mitigation measures have been deleted from the plan as they were determined by the Hazard Mitigation Planning Committee to be no longer relevant or current, or have been completed.		X
		SUMMARY SCORE		X

PLAN MAINTENANCE PROCESS

18. Monitoring, Evaluating, and Updating the Plan

Requirement §201.6(c)(4)(i): *[The plan maintenance process **shall** include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe the method and schedule for **monitoring** the plan, including the responsible department?	Section 6, P. 141	The plan states that The Monroe County Emergency Management Agency is responsible for maintaining the local Hazard Mitigation Plan. Regular monitoring of the plan will be achieved through the Agency's efforts to track the mitigation activities.		X
B. Does the **new or updated** plan describe the method and schedule for **evaluating** the plan, including how, when and by whom (*i.e.* the responsible department)?	Section 6, Pp. 141-142	An annual review is referenced, but no detail is given. However, the 5 yr review and update process is described. A description of the annual review process has been added. The plan states that an annual review will take place in June of each year. The review will be initiated by the Monroe County EMA Director, who will e-mail a survey to each member of the Hazard Mitigation Planning Committee. The eight criteria for the annual review which will comprise the survey were included in the plan. In the event modifications to the plan are warranted as a result of the annual review or other conditions, the Committee will oversee and approve all revisions to the plan.		X
C. Does the **new or updated** plan describe the method and schedule for **updating** the plan within the five-year cycle?	Section 6, Pp. 141-142	The Monroe County Natural Hazards Mitigation Plan will be updated every five years as required by FEMA. At the beginning of the fifth year, the EMA Director will begin making arrangements for the plan's update. The Committee will oversee a major update that follows the federal planning criteria in effect at the time of the update.		X
		SUMMARY SCORE		X

19. Incorporation into Existing Planning Mechanisms

Requirement §201.6(c)(4)(ii): *[The plan **shall** include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.*

Element	**Location in the Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan identify other local planning mechanisms available for incorporating the mitigation requirements of the mitigation plan?	Section 6, P. 142	This section was not addressed. This section has been addressed. The updated plan identifies the following local planning mechanisms into which the mitigation requirements of the mitigation plan may be incorporated as document are developed: • building codes or • zoning ordinances • comprehensive plans		X
B. Does the **new or updated** plan include a process by which the local government will incorporate the mitigation strategy and other information contained in the plan (*e.g.*, risk assessment) into other planning mechanisms, when appropriate?	Section 6, Pp. 142-143	This section was not addressed. This section has been addressed. The updated plan includes a process by which the local government will incorporate the mitigation strategy and other information contained in the plan. The plan notes that information in the plan will be incorporated into planning mechanisms as budgets and time allow. Jurisdictions without building codes or zoning ordinances, that decide to adopt new ordinances, will be required to reflect the goals and objectives that they included in the Hazard Mitigation Plan. The Monroe County EMA will also incorporate the plan in the Emergency Operations Plan at the next update.		X
C. Does the **updated** plan explain how the local government incorporated the mitigation strategy and other information contained in the plan (*e.g.*, risk assessment) into other planning mechanisms, when appropriate?	Section 6, Pp. 142-143	This section was not addressed. This section has been addressed. The updated plan explains since the original Hazard Mitigation Plan, the City of Monroeville's Comprehensive Plan has been updated. The Hazard Mitigation Plan was reviewed to ensure that any		X

		proposed changes (i.e. land use) to the Comprehensive Plan would not conflict with strategies identified in the plan.		
SUMMARY SCORE				**X**

20. Continued Public Involvement

Requirement §201.6(c)(4)(iii): *[The plan maintenance process **shall** include a] discussion on how the community will continue public participation in the plan maintenance process.*

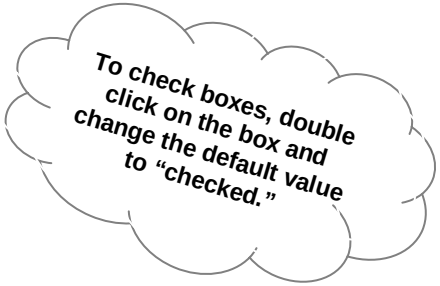
Element	**Location in the Plan** (section or annex and page #)	**Reviewer's Comments**	**SCORE** N	**SCORE** S
A. Does the **new or updated** plan explain how **continued public participation** will be obtained? (For example, will there be public notices, an on-going mitigation plan committee, or annual review meetings with stakeholders?)	Section 6, P. 141	The public will participate in updating the plan. At least two advertised public meetings will be held to involve the public in the update process. Drafts of the updated plan will also be available for public comment. Within the five-year cycle, a jurisdiction may request to update the plan. Private citizens and/or local businesses may request an update within the five- year planning cycle also.		**X**
		SUMMARY SCORE		**X**

MATRIX A: PROFILING HAZARDS

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure that their plan addresses each natural hazard that can affect the jurisdiction. **Completing the matrix is not required**.

Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each** applicable **hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)	A. Location		B. Extent		C. Previous Occurrences		D. Probability of Future Events	
	Yes	N	S	N	S	N	S	N	S
Avalanche	☐	☐	☐	☐	☐	☐	☐	☐	☐
Coastal Erosion	☐	☐	☐	☐	☐	☐	☐	☐	☐
Coastal Storm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dam Failure	☐	☐	☐	☐	☐	☐	☐	☐	☐
Drought	☐	☐	☐	☐	☐	☐	☐	☐	☐
Earthquake	☐	☐	☐	☐	☐	☐	☐	☐	☐
Expansive Soils	☐	☐	☐	☐	☐	☐	☐	☐	☐
Levee Failure	☐	☐	☐	☐	☐	☐	☐	☐	☐
Flood	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hailstorm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hurricane	☐	☐	☐	☐	☐	☐	☐	☐	☐
Land Subsidence	☐	☐	☐	☐	☐	☐	☐	☐	☐
Landslide	☐	☐	☐	☐	☐	☐	☐	☐	☐
Severe Winter Storm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tornado	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tsunami	☐	☐	☐	☐	☐	☐	☐	☐	☐
Volcano	☐	☐	☐	☐	☐	☐	☐	☐	☐
Wildfire	☐	☐	☐	☐	☐	☐	☐	☐	☐
Windstorm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐	☐	☐



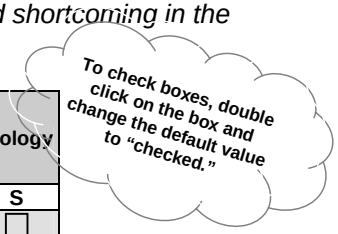
Legend:

§201.6(c)(2)(i) Profiling Hazards
A. Does the risk assessment identify the location (*i.e.*, geographic area affected) of each hazard addressed in the **new or updated** plan?
B. Does the risk assessment identify the extent (*i.e.*, magnitude or severity) of each hazard addressed in the **new or updated** plan?
C. Does the plan provide information on previous occurrences of each natural hazard addressed in the **new or updated** plan?
D. Does the plan include the probability of future events (*i.e.*, chance of occurrence) for each hazard addressed in the plan?

MATRIX B: ASSESSING VULNERABILITY

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure that the new or updated plan addresses each requirement. **Completing the matrix is not required**.

*Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each **applicable** hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk. Note: Receiving an N in the shaded columns will not preclude the plan from passing.*



Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)	§201.6(c)(2)(ii) Assessing Vulnerability: Overview					§201.6(c)(2)(ii) Assessing Vulnerability: Identifying Structures				§201.6(c)(2)(ii) Assessing Vulnerability: Estimating Potential Losses							
		A. Overall Summary Description of Vulnerability		B. Hazard Impact			A. Types and Number of Existing Structures in Hazard Area (Estimate)		B. Types and Number of Future Structures in Hazard Area (Estimate)		A. Loss Estimate		B. Methodology					
	Yes	N	S	N	S		N	S	N	S	N	S	N	S				
Avalanche	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Coastal Erosion	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Coastal Storm	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Dam Failure	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Drought	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Earthquake	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Expansive Soils	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Levee Failure	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Flood	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Hailstorm	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Hurricane	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Land Subsidence	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Landslide	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Severe Winter Storm	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Tornado	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Tsunami	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Volcano	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Wildfire	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Windstorm	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	☐	☐				

Legend:

§201.6(c)(2)(ii) Assessing Vulnerability: Overview

A. Does the **new or updated** plan include an overall summary description of the jurisdiction's vulnerability to each hazard?

B. Does the **new or updated** plan address the impact of each hazard on the jurisdiction?

§201.6(c)(2)(ii)(A) Assessing Vulnerability: Identifying Structures

A. Does the **new or updated** plan describe vulnerability in terms of the types and numbers of existing buildings, infrastructure, and critical facilities located in the identified hazard areas?

B. Does the **new or updated** plan describe vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities located in the identified hazard areas?

§201.6(c)(2)(ii)(B) Assessing Vulnerability: Estimating Potential Losses

A. Does the **new or updated** plan estimate potential dollar losses to vulnerable structures?

B. Does the **new or updated** plan describe the methodology used to prepare the estimate?

MATRIX C: IDENTIFICATION AND ANALYSIS OF MITIGATION ACTIONS

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure consideration of a range of actions for each hazard. **Completing the matrix is not required.**

*Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each **applicable** hazard. An "N" for any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.*

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)	A. Comprehensive Range of Actions and Projects	
	Yes	N	S
Avalanche	☐	☐	☐
Coastal Erosion	☐	☐	☐
Coastal Storm	☐	☐	☐
Dam Failure	☐	☐	☐
Drought	☐	☐	☐
Earthquake	☐	☐	☐
Expansive Soils	☐	☐	☐
Levee Failure	☐	☐	☐
Flood	☐	☐	☐
Hailstorm	☐	☐	☐
Hurricane	☐	☐	☐
Land Subsidence	☐	☐	☐
Landslide	☐	☐	☐
Severe Winter Storm	☐	☐	☐
Tornado	☐	☐	☐
Tsunami	☐	☐	☐
Volcano	☐	☐	☐
Wildfire	☐	☐	☐
Windstorm	☐	☐	☐
Other _____	☐	☐	☐
Other _____	☐	☐	☐
Other _____	☐	☐	☐

To check boxes, double click on the box and change the default value to "checked."

Legend:
§201.6(c)(3)(ii) Identification and Analysis of Mitigation Actions
A. Does the **new or updated** plan identify and analyze a comprehensive range of specific mitigation actions and projects for each hazard?