

Coosa County Natural Hazard Mitigation Plan 2016-2021

Participating Municipalities:
Coosa County Goodwater
Kellyton
Rockford



I. The Hazard Mitigation Plan

A. Coosa County Natural Hazards Mitigation Plan

The Coosa County Natural Hazards Mitigation Plan is a multi-jurisdictional hazard mitigation. This plan fulfills the requirements set forth by the Federal Disaster Mitigation Act of 2000 (DMA 2000). It meets all eligibility requirements set forth by the Federal Emergency Management Agency (FEMA) for grant assistance. Geographically, this plan covers the entire county including all unincorporated areas and the municipalities of Goodwater, Kellyton and Rockford.

B. Authority

Section 409 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-228, as amended), Title 44 Code of Federal regulations, as amended by Part 201 of the DMA 2000 requires that all state and local governments develop a Hazard Mitigation Plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. Coosa County's previous hazard mitigation plan was approved in April 2011.

C. Scope

This multi-jurisdictional hazard mitigation plan addresses natural hazards risk assessment and mitigation implementation for Coosa County as a whole, and is structured in accordance with mitigation planning requirements as stated in the Stafford Act and 44 CFR Part 201.

D. Purpose

Information in this plan will be used to help guide and coordinate mitigation activities and decisions for local action. Proactive mitigation planning will help reduce the cost of disaster response and recovery to communities and their residents by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruptions. Coosa County and the participating jurisdictions have been affected by hazards in the past and are committed to reducing future impacts from hazard events and maintaining eligibility for mitigation-related federal funding.

E. Multi-Jurisdiction Planning Process

The hazard mitigation plan update planning process is a continual process which began once the original 2004 hazard mitigation plan was approved by FEMA. A planning team which consisted of representatives responsible for mitigation activities from each municipality and the county was created for the development of the original plan and successive updates of that plan. Participation in the planning process is the only way a jurisdiction can be seen in FEMA's eyes as a "participating jurisdiction" that has met the requirements of DMA 2000 and is therefore eligible to apply for Federal funds for hazard mitigation projects. Participation is defined as providing input, feedback, reviewing/analyzing data; basically having an active role in the review and update of this document.

II. County Profile

Coosa County was created by the Alabama legislature on 1832 Dec. 18, from lands included in the Creek Indian Treaty of Cusseta, 1832 Mar. 24. It was named for the Coosa River, which forms its western boundary. The word "Coosa" is believed to mean "cane-brake" in the Alabama-Kossati Indian dialect. Coosa County lies in the east-central part of the state. It is bordered by Shelby, Talladega, Clay, Tallapoosa, Elmore, and Chilton counties. A site on Albert Crumpler's plantation on Hatchemalega Creek was chosen as the county seat and given the name Lexington. In 1835 the name was changed to Rockford. Other towns and communities include Equality, Nixburg, and Goodwater.

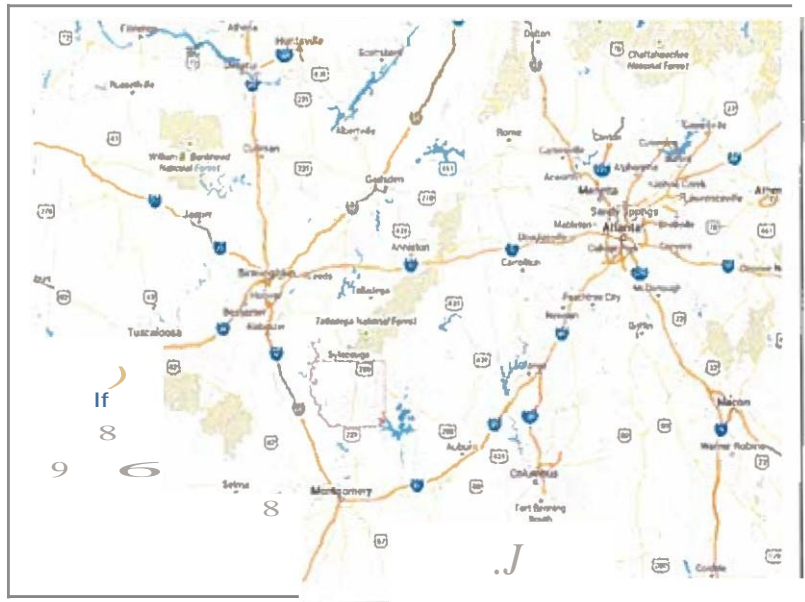
The town of Goodwater is Coosa County's largest, but the county seat is in Rockford, 26 miles north of Wetumpka. Originally named Pondalassa by settlers, the town's name was later changed to Rockford.

According to the U.S. Census Bureau, the County has a total area of 666 square miles. Of these miles, 652 square miles are land and 14 square miles are water surface. Water surface makes up approximately 2.09% of the surface area.

Figure 2.1 Coosa County in relation to the State of Alabama



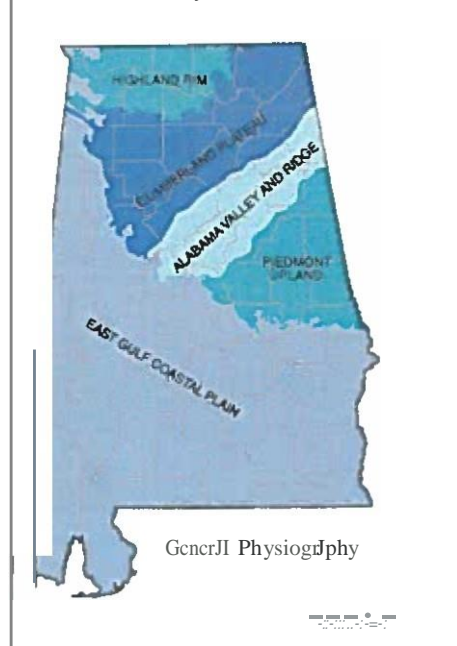
Figure 2.2 Coosa County in relation to the Nearest major SE Cities



Coosa County is situated on the western end of the piedmont plateau. Rockford, the county seat is approximately 40 miles from Montgomery. The majority of the surface relief of the county is that of Piedmont Upland characterized by relatively low, rolling hills with heights above sea level from 200 feet to 1,000 feet. Essentially the Piedmont is the remnant of several ancient mountain chains that have since been eroded away. Geologists have identified at least five separate events which have led to sediment deposition, including the Grenville orogeny (the collision of

continents that created the supercontinent Rodinia) and the Appalachian orogeny during the formation Pangea.

Figure 2.3 General Physiography of Coosa County



The Alabama Valley and Ridge physiography dominate a tiny fraction of the County's north western most border which is characterized by long, even ridges with long, continuous valleys in between. These formations are the remnants of an ancient fold-and-thrust belt, west of the mountain core that formed in the Alleghenian orogeny (a result of three separate continental collisions).

A. Hydrology

Two watersheds, the lower Coosa and Middle Tallapoosa, drain Coosa County. The Tallapoosa River flows in the southeastern portion of the County. The Coosa River borders the entire Western portion of the County. In Coosa County the general movement of ground water is south and west. As the principal cause of water level fluctuations in Coosa County is seasonal (related directly to precipitation), the lowest annual water levels in the fall (during a period of low precipitation) and the highest water level is in late winter or early spring (during a period of high precipitation).

Most wells in the county range from 100 to 250 feet in depth, with the static water level usually being from 15 to 25 feet. Shallow wells of less than 50 feet total depth are generally ample for limited domestic use. Water is generally of good quality and is suitable for many uses.

B. Demographics

There are three incorporated towns in Coosa County; Goodwater, Kellyton and Rockford. The town of Kellyton incorporated in 2002. The following table depicts selected demographic Characteristics for the County and its incorporated municipalities:

Jurisdiction	Population	Over Age 65	Under Age 19	Total Housing Units	Occupied Housing Units	Labor Force/Unemployed	Median Household Income	Percent of Population Below Poverty Level
Coosa County	11,539	1,970	2,667	6,478	4,794	4867/862	37,277	20.9%
Kellyton	217	49	53	110	92	117/14	35,000	49.9%
Goodwater	1,475	290	375	708	618	679/126	24,702	31.2%
Rockford	477	84	81	245	206	135/17	22,667	33.6%

Since the Census was conducted in 2000, the County overall has experienced a population decline. The Town of Rockford experienced a slight population increase from 2000 to 2010, but followed suit with the county population trend from 2011 through the 2013 estimate.

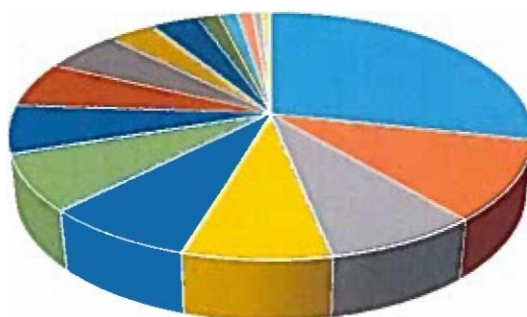
Jurisdiction	2013 Estimate	2010	2000	1990	1980	1970	1960	1950	1940
Coosa County	10, 898	11, 539	12, 202	11, 063	11,377	10,662	10, 726	11, 766	13,460
Kellyton	201	217	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goodwater	1,391	1,475	1,633	1,840	1,895	2,172	2,026	1,227	1,028
Rockford	456	477	428	461	494	603	328	373	394

B. Economy

For the purpose of this plan, an analysis of the local economy will draw a picture of the areas ability to cope, and if necessary, recover from potential damage caused by hazards. The stronger and more diverse an economy is, the more sustainable it will be during a substantially hazardous event.

According to the 2012 County Business Patterns, there are 98 business establishments located throughout Coosa County. The following table shows the proportion of employment by sector for the County.

Coosa County Industry by Type
(2009- 2013 American Community Survey (5-Year Estimates))



- Manufacturing
- Public administration
- Educational services
- Transportation and warehousing
- Accommodation and food services
- Other services, except public administration
- Finance and insurance
- Real-estate and rental and leasing
- Retail trade
- Construction
- Health care and social assistance
- Administrative and support
- Professional, scientific, and technical services
- Arts, entertainment, and recreation
- Utilities
- Wholesale trade

O. Transportation

Roads

Coosa County and its municipalities are served fairly well by an interconnected web of County, State and U.S. routes. The primary north-south routes through the county are U.S. 231 and State

Highway 9. These two roads serve the Towns of Rockford and Goodwater respectively. These roads provide a direct route from Goodwater and Rockford to the Capitol City, Montgomery. The Town of Kellyton is served by U.S. 280 which runs in a north-west to south-east direction and connects Kellyton to the major cities of Birmingham to the northwest and Auburn to the southeast.

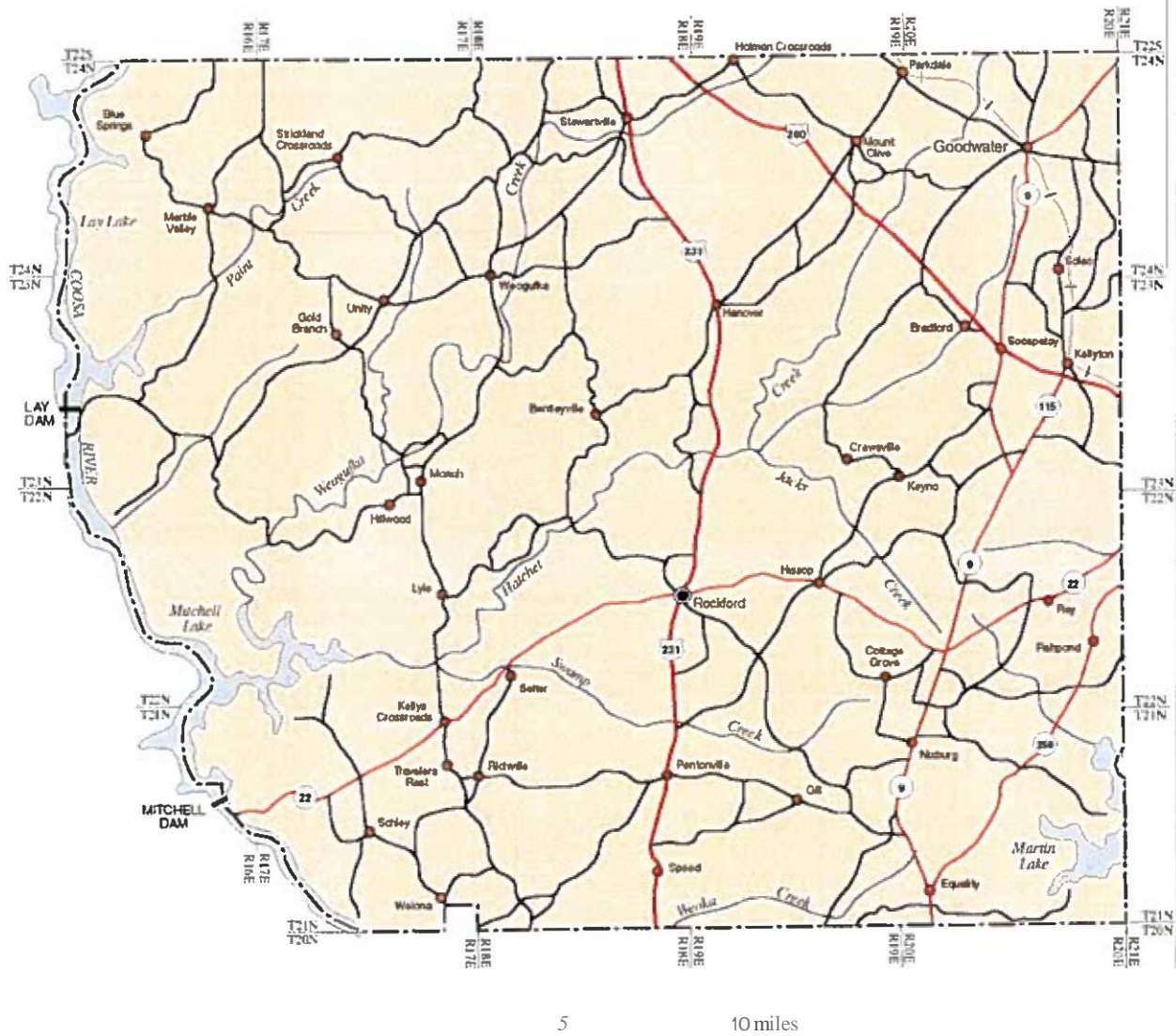
East-West travel within the county is a bit challenging. The County is served by State Highway 22 which provides a direct route from the eastern border of the county to the western border, in the southern portion of the County. AL State Highway 22 connects the Town of Rockford with Alexander City to the east, and provides access to Interstate 65 (although not direct) in neighboring Chilton County. The northern portion of the county does not have a direct route from east to west (or vice-versa), but is served by County roads that do make connections possible, although a bit haphazard.

The north-western portion of the county is served only by County roads. There are no incorporated municipalities in this part of the County, although there are several unincorporated communities and population clusters. Also, recently much residential development has occurred on the western border of the County, due to the presence of the Coosa River.

The annual average daily traffic (AADT) counts for the primary routes through Coosa County are described below:

Station location	Functional Classification	2013 AAOT	2012 AADT	2011 AAOT	2010 AADT	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT
US Highway 231 at Coosa/Talladega County line	3	5,110	5,270	5,320	5,120	4,810	4,760	5,030	5,140	5,120
US Highway 231 at Coosa/Elmore County line	3	2,120	2,130	2,150	2,260	1,920	1,850	2,120	2,230	2,170
Alabama Highway 9 (Clay County line)	4	1,580	1,460	1,477	1,500	1,460	1,410	1,550	1,620	1,600
Alabama Highway 9 (Coosa/Elmore County line)	4	2,980	2,890	2,915	2,960	3,320	3,220	3,360	3,550	3,370
US Highway 280 at Talladega County Line	3	12,240	12,120	12,240	11,610	11,670	11,230	11,610	11,180	11,410
US Highway 280 at Tallapoosa County Line	3	13,800	13,830	13,967	14,180	14,370	13,830	14,210	13,690	13,790
Alabama Highway 22 at Tallapoosa County line	4	3,050	3,990	4,030	3,830	3,950	3,830	4,050	3,910	3,830
Alabama Highway 22 at Chilton County line	4	1,260	1,540	1,560	1,480	1,460	1,410	1,603	1,490	1,450

COOSA COUNTY



Legend

® County seat

City Town or

village Primary

highway

Secondary

highway

Other principal roads

US State Routemarker Interstate



Population Key

BIRMINGHAM	100,000 to 500,000
Tuscaloosa	50,000 to 100,000
Gadsden	25,000 to 50,000
Albertville	5,000 to 25,000
Foley	1,000 to 5,000
	500 to 1,000
	Up to 500

Produced by the Dept. of Geography
College of Arts and Sciences
The University of Alabama

E. GOVERNMENT

Coosa County is governed by a five-member County Commission. The Commission has rotating Chairmanship. Each commissioner is elected to serve a term of four years. It is the responsibility of the County Commission to oversee the County government, budget, County ordinances and resolutions (local laws), zoning and business regulation in the unincorporated areas and setting policies for the operation of County government. The municipalities within the County are each governed by a Mayor and City Council.

F. WATER

There are five water distribution systems that provide a safe reliable source of drinking water to the residents of Coosa County. Collectively, these systems serve approximately 17,095 households. The table below summarizes the supply, storage and treatment capacities of the watersystems in Coosa County.

SYSTEM NAME	RESIDENTIAL HOUSEHOLDS SERVED	RESIDENTIAL PERSONS SERVED	SUPPLY CAPACITY {GPO}	TORAGE CAPACITY GPO)	TREATMENT CAPACITY (GPO)
Kellyton Water System	612	Unknown	••	500,000	••
Ray Community Water and FPA	455	1,300	••	100,000	••
Stewartville Water Authority	1,470	5,000	576,000	350,000	576,000
Goodwater Water Works and Sewer Board	853	1,840	500,000	400,000	500,000
Rockford Water Works	605	1,000	500,000	150,000	140,000

G. SEWER

Sewage disposal within the County is accomplished by septic tank. The municipalities of Rockford and Goodwater maintain sewer systems. The table below describes these systems:

TREATMENT FACILITY INVENTORY

Water Works and Sewer Board of Goodwater

Baker Creek Activated Sludge..... 10 Acres
Extended Aeration Plant..... 150,000GPO

Rockford Water, Sewer and Gas Board

Aeration Plant..... 37,500 GPO

Total municipal treatment capacity..... 187,000 GPO

H. POWER

Alabama Power provides electrical service throughout the Town of Rockford. Central Alabama Rural Electrical Co-Op supplies power for the remainder of the County.

I. INFORMATION/COMMUNICATION

TELEPHONE- AT&T provides the majority of local home telephone service for Coosa County. Many of the residents use wireless service rather than having a hardwired home telephone. This trend is becoming more popular. The largest wireless service providers for the area are Verizon, AT&T, Sprint and Nextel. AT&T and the listed wireless companies also offer Internet services.

NEWSPAPERS-Local newspaper service is provided by the Coosa County News, published weekly in Rockford by Coosa Communications.

RADIO- There are no local radio providers in Coosa County. Radio signals are received from stations located in surrounding counties.

TELEVISION- There are no local television service providers in Coosa County. Television signals are received from stations located in surrounding counties.

III. Planning Process

Hazard Mitigation Plans are required to be updated every five years for participants to remain eligible for Federal mitigation funding. This Plan was updated following guidance from FEMA publications Local Mitigation Planning Handbook and Local Mitigation Plan Review Guide.

Hazard Mitigation Planning Committee

The Hazard Mitigation Planning Committee (HMPC) was created and charged with the task of developing and overseeing a comprehensive natural hazard mitigation planning process that:

- Engages public participation and support
- Facilitates federal, state, regional, and local agencies coordination,
- Monitors and evaluates the potential risks of hazards to life and property,
- Results in programmed actions with specific results.

The HMPC is composed of members of local governments within Coosa County, volunteer agencies, first responders, and other interested parties. The Coosa County EMA Director drew from the committee used to develop the previous Plan update, and expanded the HMPC to include the Coosa County Volunteer Firefighters Association, American Red Cross, Coosa County Extension Service, Coosa County Public Health, and the Coosa County Public Education Department. The table below describes HMPC membership and participation status:

Entity	Representing	Participation
Coosa County EMA	Coosa County	Planned meetings, attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
Coosa County Engineer	Coosa County	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
Coosa County Sheriff	Coosa County	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
Coosa County Forester	Coosa County	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
Coosa County Administrator	Coosa County	Provided information and data research related to County fiscal activities
Mayor	Town of Kellyton	Reviewed hazard identification and vulnerability, provided mitigation strategy
Assistant Fire Chief	Town of Goodwater	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
Street Superintendent	Town of Goodwater	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
Street Superintendent	Town of Rockford	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan

Utilities Board	Town of Rockford	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
Town Clerk	Town of Rockford	attended meetings, participated in "homework" exercises, provided information and data research, reviewed documents and provided feedback on update for this Plan
American Red Cross	American Red Cross	attended meetings, provided information and data research, reviewed documents and provided feedback on update for this Plan
Coosa County Public Health Assistant Area Administrator	Coosa County Public Health Department	No participation received
Coosa County School Superintendent	Coosa County Dept. of Education	No participation received
Coosa County Extension Agent	Coosa County Extension Service	No participation received

In addition to the County specific HMPC, an interagency, intergovernmental committee was created to provide neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development the opportunity to be involved in the planning process. This committee was identified by the Coosa County EMA Director and staff of the East Alabama Regional Planning and Development Commission. The interagency, intergovernmental committee is defined in the following table:

Entity	Representing	Participation
Environmental Review Coordinator	Alabama Department of Environmental Management	No participation received
Planning and Environmental Division Chief	Army Corps of Engineers, Mobile District	No participation received
Deputy State Historic Preservation Officer	Alabama Historical Commission	No participation received
Revenue Commissioner	Coosa County Department of Revenue	Attended meeting(s), reviewed data, provided input on plan content and development
District Plan Conservationist	USDA Natural Resources Conservation Service	Attended meeting(s), reviewed data, and provided input on plan content and development
County Executive Director	USDA Farm Service Agency	Attended meeting(s), reviewed data, provided input on plan content and development
Alabama Forestry Commission	Alabama Department of Forestry	Attended meeting(s), reviewed data, provided input on plan content and development
Lake Martin Area Economic Development Alliance	Lake Martin Area Economic Development Alliance	No participation received
Alabama NFIP Coordinator	Office of Water Resources	No participation received
Mitigation Coordinator	Central Alabama Electric Coop	Attended meeting(s), reviewed data, provided input on plan content and development

Emergency Services Coordinator	American Red Cross	Attended meeting(s), reviewed data, provided input on plan content and development
County Transportation Engineer	Alabama Department of Transportation	No participation received
Water System Manager	Kellyton Water System	No participation received
Water System Manager	Ray Community Water and Fire Protection Authority	No participation received
Water System Manager	Stewartville Water Authority	No participation received
Water System Manager	Rockford Water Works	Attended meeting(s), reviewed data, provided input on plan content and development
Water System Manager	Goodwater Water and Sewer Board	Attended meeting(s), reviewed data, provided input on plan content and development
Director	Coosa County EMA	Attended meetings, reviewed data, provided input on plan content and development
Planner	East Alabama Regional Planning Commission	Attended meetings, gathered and reviewed data, provided input on plan content and development

Plan participation was reviewed by Coosa County EMA staff and it was determined that no change in the definition or requirements were warranted regarding a jurisdiction's participation. Participation in the planning process is met if a jurisdiction has attended a minimum of one planning meeting in addition to communication with the Coosa County EMA or East Alabama Regional Planning and Development Commission with respect to the jurisdiction's hazards and mitigation strategy. If the municipality has been present for all planning meetings, additional communication with Coosa County EMA or EARPDC is not necessary. A community will be considered to have participated in the planning process if they have also submitted a prioritized list of mitigation projects that address the hazards identified in the Hazard Profile section of the Plan and those mitigation projects do not contradict the goals of this Plan.

Entities that have met the participation requirement for this Plan are:

- Coosa County (Continuing participant)
- Town of Goodwater (Continuing participant)
- Town of Kellyton (Continuing participant)
- Town of Rockford (Continuing participant)

This update was conducted over approximately 18 months. A review of the hazard history and discussion of events since the last plan update was the primary focus of the first planning meeting. The purpose of this was to determine if the county was susceptible to natural hazards not identified in the previous plan update. It was determined that the existing hazard identification based on historical data was applicable and no update or addition of hazards should be included. The following table details the methodology used in the update of this plan and the material covered during the HMPC meetings:

Meeting Date	Objective	Method	Outcome	Notes
2/4/2014	Hazard Identification and Prioritization	Discussion and Handouts, review of existing Plan	Hazard ID and prioritization from previous plan still applicable	All local governments had representation at this meeting.
8/28/2014	Review of Goals, Vulnerability Assessment, and Hazard History	Discussion and handouts, review of existing Plan.	No change in goals. No new or increased areas of vulnerability.	
9/10/2014	Existing planning mechanisms, NFIP, development patterns	Discussion, handouts, review of maps	Identified planning mechanisms and/ or the lack of such, no new or increased areas of vulnerability.	Alabama is not considered a "planning state". Jurisdictions lack home rule, counties are not allowed to create most planning documents.
10/9/2014	Mitigation Strategy Update, Public Meeting	Existing strategy review, discussion and handouts	Identified status of projects, updated strategy to reflect completed or deleted projects	
4/23/2015	Interagency/ Intergovernmental participation	Coordinate with entities on their existing mitigation strategies and practices, update entities on the County Plan, and provide comment opportunity for other entities and neighboring jurisdictions.	New information acquired regarding resources available during events, but no specific mitigation resources identified, no comments or specific input from entities regarding planning document	

Public Involvement during the Planning Process

All planning meetings were open to the public. Public notices were continually posted in each Town Hall and the County Commission bulletin board. These notices contained information regarding the plan's development, meeting dates and times, and encouraged residents to attend and participate in the planning process.

Additionally, a public meeting was held specifically for the public to participate in the planning process and provide feedback on the process thus far. This meeting was held on October 9, 2014. This meeting was advertised in the Coosa News, as well as by flyers posted in Town Halls, the County Commission bulletin board, Senior Citizen Centers within the County and the County Health Department. No public participation was received.

Each participating jurisdiction will hold a public meeting prior to adopting the finalized, FEMA Approved version of this planning document. The public will be given opportunity to review and comment prior to adoption.

Review and Incorporation of Existing Plans and Studies

Existing documents reviewed for the update to this Hazard Mitigation Plan were:

Planning Document	Incorporation element(s)
State of Alabama Hazard Mitigation Plan	Hazard History and Prioritization
Coosa County EOP, HMP and THIRA	Hazard ID, Vulnerability, Mitigation Strategy
NFIP Community Rating System report	NFIP Participation
Flood Insurance Rate Maps, Flood Insurance Study	Flood Hazards and NFIP Participation
Coosa County Community Wildfire Protection Plan	Hazard 10 and Vulnerability

Where feasible, information, objectives, strategies and other resources gleaned from these planning documents were incorporated into update of this Hazard Mitigation Plan.

Plan Maintenance Process

Each jurisdiction will continue to seek public participation after the plan has been approved and during the plan's implementation, monitoring and evaluation by openly accepting comments at any time from the public. Notices will be posted at public places advising the public of this opportunity. Also, the Coosa County EMA will make periodic presentations to schools and civic meetings regarding the Plan, its status and request feedback at that time. Additionally, municipalities which are using social media will annually announce a call for participation and feedback regarding the plan and its status.

The Coosa County EMA Director will perform an annual review of the Hazard Mitigation plan at the first Association of Volunteer Firefighters meeting of each calendar year. This review will consist of a discussion of events from the previous year, and a determination whether or not action should be taken to update or revise the mitigation plan or any section of it. Documentation

of this discussion and the documentation of any plan revision will be the responsibility of the Coosa County EMA.

The Coosa County EMA Director and City Clerk of each jurisdiction will be responsible for monitoring/tracking the implementation of the plan over time. City Clerks will report to the Coosa County EMA director the status of any mitigation actions that are being implemented as well as any strategy that has been determined unnecessary, or the inclusion of new mitigation action items.

Evaluation of the Plan will occur during the annual review of the Plan. The Coosa County EMA Director will propose those present at the first Association of Volunteer Firefighters meeting of each calendar year provide input on the effectiveness of the plan by a discussion of the status of implementation of strategies, status of funding for mitigation strategies, and review of the purpose of the Plan.

Update of the Plan will occur every five years as required by 44 CFR 201.6(c)(4)(i). Again, the Coosa County EMA Director will be responsible for convening the HMPC and identifying proper stakeholders and interested parties. This will be done approximately one year before the expiration of this planning document.

IV. Hazard Identification

A review of the Alabama State Hazard Mitigation Plan, Coosa County Hazard Mitigation Plan, Coosa County Community Wildfire Protection Plan as well as other documents previously identified, was completed at the first planning meeting on February 4, 2014. Materials generated from research through the Birmingham Weather Service, NOAA's Climactic Data Center, FEMA Disaster and Emergency Declarations (which included Coosa County) and the County EMA Director and County Staff were also reviewed and discussed to identify natural hazards that may affect Coosa County.

After a review and discussion of these documents, the HMPC discussed hazard events that had occurred since the last update of this Plan. The conclusion was reached that there was no change needed in the identification of hazards; no hazards should be added nor deleted from the Natural Hazards previously identified that affect Coosa County, AL.

Based on the discussion and review of materials, the HMPC identified and prioritized the following natural hazards in Coosa County:

- Tornadoes
- Severe Storms
- Flooding
- Winter Storms

Other hazards that threaten the County less frequently were also identified due to the disruption of daily activities of government and society are:

- Hurricanes
- Droughts

V. Hazard Profile

Tornadoes

Description

A tornado is a rapidly rotating funnel (or vortex) of air that extends toward the ground from a cumulonimbus cloud. Most tornadoes do not touch the ground, but when the lower tip of a tornado touches the earth, it can cause extensive damage. Tornadoes often form in convective cells such as thunderstorms or at the front of hurricanes.

Tornado damage severity is measured by the Fujita Tornado Scale, which assigns a numerical value of 0 to 5 based on wind speeds, as shown in the following table. Most tornadoes last less than thirty minutes, but can exist for more than an hour. The path of a tornado can range from a few hundred feet to miles, and tornado widths may range from tens of yards to more than a Quarter of a mile.

Category	Wind Speed	Description of Damage
F0	40-72 mph	Light damage. Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage to sign boards.
F1	73-112 mph	Moderate damage. The lower limit is the beginning of Hurricane speed. Roof surfaces peeled off; mobile homes pushed off foundations or overturned; moving autos pushed off roads.
F2	113-157 mph	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.
F3	158-206 mph	Severe damage. Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; cars lifted off ground and thrown.
F4	207-260 mph	Devastating damage. Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
F5	261-318 mph	Incredible damage. Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100-yards; trees debarked.

Since the original development of this Plan (2004), the National Weather Service has implemented the Enhanced Fujita Scale for rating tornadoes. The EF Scale will continue to rate tornadoes on a scale from zero to five, but ranges in wind speed will be more accurate with the improved rating scale. Limitations of the original F Scale may have led to inconsistent ratings, including possible overestimates of associated wind speeds. The EF Scale incorporates more damage indicators and degrees of damage than the original F Scale, allowing more detailed

Analysis and better correlation between damage and wind speed. The original F Scale historical data base will not change. An FS tornado rated years ago is still an FS, but the wind speed associated with the tornado may have been somewhat less than previously estimated. A correlation between the original F Scale and the EF Scale has been developed. This makes it possible to express ratings in terms of one scale to the other, preserving the historical database.

Enhanced Fujita Tornado Scale Description Table			
F-Scale	Damage	Winds (mph)	Description
EF-0	Light	40-72	Chimney damage, tree branches broken
EF-1	Moderate	73-112	Mobile homes overturned
EF-2	Considerable	113-157	Considerable damage, trees downed, mobile homes demolished
EF-3	Severe	158-206	Roofs/walls torn down, trains and cars overturned
EF-4	Devastating	207-260	Well-constructed walls leveled
EF-5	Incredible	261-318	Homes lifted off foundation and carried considerable distances

*** IMPORTANT NOTE ABOUT ENHANCED F-SCALE WINDS: The Enhanced F-scales this a set of wind estimates (not measurements) based on damage. Its uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage to the 28 indicators listed below. These estimates vary with height and exposure. Important—The 3 second gust is not the same wind as in standard surface observations. Standard measurements are taken by weather stations in open exposures, using a directly measured, "one minute mile" speed.

History

Sixteen tornadoes were reported in Coosa County from December 11, 1961 through March 31, 2015. There is no portion of the county that is not vulnerable to tornadoes, and all portions of the county are equally vulnerable.

Location or County	Date Type	Time	Mag	Dth	Inj	Property Damage	Crop Damage
COOSA CO.	12/11/1961	21:00 Tornado	F0			25.00K	0.00K
COOSA CO.	11/17/1968	12:45 Tornado	F3			2.500M	0.00K
COOSA CO.	04/18/1978	17:15 Tornado	F2	0	0	25.00K	0.00K
COOSA CO.	3/1982	16:33 Tornado	F0		0	20.00K	0.00K
ECLECTIC	03/18/1996	18:55 Tornado				0.00K	

STEWARTSVILLE	11/07/1996	18:20	Tornado	O	2	650.00K	W00K
MARBLE VLY	04/03/2000	13:23	Tornado	F0	0	0	5.00K 0.00K
EQUALITY	W2s/200S	19:44	Tornado	F1	0	16.00K	M0K
MARBLEVLY	02/06/2008	06:25	Tornado	EF0	0	11S.00K	0.00K
SOCAPATON	02/17/2008	13:42	Tornado	EF1	0	100.00K	0.00K
WETONA	08/24/2008	13:12	Tornado	EF0	0	0	0.00K 0.00K
EQUALITY	04/1S/2011	22:26	Tornado	EF2	0	14.10K	0.00K
WETONA	12/22/2011	14:25	Tornado	m-0	u	6S.00K	0.00K -1
WETONA	03/02/2012	22:11	Tornado	EF0	0	0	0.00K 0.00K
PENTONVILLE	10/01/2011	03:47	Tornado	EF0	0	0	0.00K 0.00K
Totals:	0.00K					3.86SM	20.00K

Location

Tornadic events appear to occur randomly. Each municipality and the County itself are all equally at risk for tornadic activity.

Extent

The impact of tornadoes primarily depends upon their occurrence in developed areas. The County and municipalities have no record of experiencing an FS tornado, but that is not to say it would not happen. Damages from such an event would likely cause destruction of structures, loss to agriculture and livestock, interruption in power and other utility services and casualties. The following text describes the extent of some of the more damaging events.

January 3, 1982 – A F2 tornado touched down at 4:33 PM in Coosa County. The majority of damaged resulted from high winds, downed trees, and power lines. Several homes and businesses throughout the County sustained damage associated with the tornado.

November 7, 1996- A small tornado began about 3.5 miles southwest of Stewartville in north central Coosa County and moved northeastward through Stewartville downing trees and damaging houses, businesses, and mobile homes. The total tornado track was estimated to be about 4 miles in length; however, the tornado track began in a wooded area south of County Road 70 where no roads existed. The tornado path was about 200 yards wide at its widest. The tornado track ended on the northeast side of Stewartville just after crossing US 231. Two people were reported injured but none of the injuries were reported as serious. At least 11 homes were damaged, several mobile homes were damaged including two that were destroyed, and at least one business on US 231 sustained heavy damage.

April 15, 2011- A tornado touched down 6.4 miles west of Central, along County Road 334 in Elmore County. The tornado moved to the northeast and crossed the Coosa County line. The tornado then crossed State Highway 9 and continued moving east, eventually crossing into

Tallapoosa County. The tornado lifted on the east side of northern Lake Martin. In Coosa County, numerous trees were snapped or uprooted. One home suffered significant damage and several outbuildings sustained roof damage.

Although the event dated November 17 1968 lists \$2.5 million in damages, this event has no details associated with it in NOAA's database. Research indicates that this was in fact 2 tornadoes on that day, an F2 and F1. These events occurred at 11:30 and 12:45. A total of 26 injuries were reported. No amount of dollar damages have been recorded.

Probability

It is impossible to determine the exact probability of tornadic activity, however, given the long reporting period that data had been recorded for tornadoes, it is reasonable to assume that the average annual occurrence of tornadoes in the County will remain constant with information previously presented. The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent chance of occurrence in any year
low	0%- 33%
Moderate	34%- 66%
High	67%- 100%

16 events out of a 55-year reporting period (1960-2015) averages to 29% probability annually, which is considered low probability of occurrence.

SEVERE STORMS

Description

Severe storms are widely underrated in the damage, injury and death they can cause. Not only are dangerous winds associated with these storms, but lightning strikes and the potential for flooding rains often occur in these storms.

Wind damage from severe thunderstorms can rival that of tornadic activity. Often times the experts have to refer to damage patterns to discern tornadic wind damage from that of straight-line winds. Dangerous lightning occurs in these storms. As lightning goes through the atmosphere, it can generate temperatures up to 54,000 degrees Fahrenheit. This intense heating generates shockwaves which turn into sound waves, thus generating thunder.

Warm, humid conditions encourage thunderstorms as the warm, wet air updrafts into the storm. As warm, moisture rich air rises it forms cumulus nimbus clouds, thunderstorm clouds, usually with a flattened top or an anvil shape, reaching to 40,000 feet or more. If this air is unstable, the conditions are then there to cause hail, damaging winds and possibly tornadoes.

History

Severe storms, unlike other hazards that can affect the county have more than one component -wind, lightning, hail and potential flooding and possible tornadoes. Flooding will be addressed separately as it can occur independently of severe storms. Tornadoes will also be address separately because they can be of such magnitude and destructive potential. The following tables describe the history of severe storms throughout the county in terms of thunderstorm winds and hail.

Thunderstorm Winds

Location or County	Date	Time	Type	Wind Speed	Dth	In.	Property Damage	Crop Damage
COOSA CO.	06/11/1968	18:50	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	12/29/1973	20:00	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	01/10/1984	16:05	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	04/05/1985	18:15	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	03/20/1989	19:55	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSACO.	04/04/1989	13:00	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	04/04/1989	13:15	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	11/15/1989	16:10	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	02/10/1990	03:30	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	01/16/1990	03:05	Thunderstorm Wind	0 kts.	0	4	0.00K	0.00K
COOSA CO.	02/16/1990	07:50	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	08/19/1990	15:25	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	04/28/1991	13:05	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	04/28/1991	13:10	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSACO.	05/05/1991		Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	06/18/1992	20:07	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	03/24/1994		Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
COOSA CO.	11/22/1992	08:20	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
STEWARTSVILLE	07/26/1995	15:50	Thunderstorm Wind	0 kts.	0	0	3.00K	0.00K
ROCKFORD	01/24/1997	08:00	Thunderstorm Wind	so kts.	0	0	7.00K	0.00K
ROCKFORD	05/03/1997	10:30	Thunderstorm Wind	50 kts.	0	0	8.00K	0.00K
ROCKFORD	06/15/1998	21:00	Thunderstorm Wind	55 kts.	0	3	40.00K	0.00K
COUNTYWIDE	02/27/1999	20:10	Thunderstorm Wind	55 kts.	0	0	8.00K	0.00K

99	17:15	Thunderstorm Wind	50 kts.	lo	0	3.00K	Q.00K
KELLYTON	02/13/2000 22:20	<u>Thunderstorm</u> Wind	55 kts.E	[() ' o		0.00K	f0:00K
ROCKFORD	07/20/2000 17:45	<u>Thunderstorm</u> Wind	55 kts.E	o	1	3.00K	hook -

ROCKFORD	08/10/2000 19:39	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
COUNTYWIDE	07/05/200 5:15	Thunderstorm Wind	55 kts. E	0	0	2.00K	0.00K
NIXBURG	08/20/2002 15:58	Thunderstorm Wind	50 kts. E	0	0	3.00K	0.00K
WEOGUFKA	03/05/2003 20:10	Thunderstorm Wind	55 kts. EG	0	0	2.00K	0.00K
ROCKFORD	04/25/2003 14:27	Thunderstorm Wind	60 kts. EG	0	0	3.00K	0.00K
ROCKFORD	05/02/2003 7:22	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
KELLYTON	05/31/2004 04:49	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
ROCKFORD	11/28/2005 12:18	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
ROCKFORD	08/30/2006 17:18	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
KELLYTON	10/23/2007 01:30	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
ROCKFORD	04/04/2008 14:50	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
SALTER	06/09/2008 18:35	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
WEOGUFKA	07/22/2008 16:15	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
MARBLE VLY	05/03/2009 13:47	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
HISSOP	07/05/2009 17:04	Thunderstorm Wind	56 kts. EG	0	0	3.00K	0.00K
STEWARTSVILLE	04/04/2011 20:05	Thunderstorm Wind	55 kts. EG	0	0	20.00K	0.00K
SALTER	05/26/2011 13:48	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
SPRING GROVE	05/26/2011 13:58	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
STEWARTSVILLE	06/17/2011 12:13	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
WEOGUFKA	12/25/2012 20:09	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
SALTER	03/23/2013 22:38	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
HANOVER	03/23/2013 22:42	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
GOODWATER	03/23/2013 22:53	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
COOTAGE GROVE	06/07/2014 22:57	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Totals:				0	0	58.00K	0.00K

Hail

Location or County	Date	Time	Type	Mag	Dth	Inj	Property Damage	Crop Damage
COOSA CO.	04/25/1988	14:45	Hail	0.75 in.	0	0	0.00K	0.00K
COOSA CO.	05/09/1988	22:15	Hail	1.75 in.	0	0	0.00K	0.00K
COOSA CO.	04/01/1990	15:30						
COOSA CO.	05/21/1990	11:25						

0.75in. RO - o	0.00K 0.00K		Hail	<u>0.75 in.</u>	0	0	0.00K	<u>0.00K</u>
COOSA CO.	<u>04/27/1991</u>	18:15	Hail	<u>0.75in.</u>	0	0	'0.00K	0.00K
COOSA SE CO.	<u>05/15/1994</u>	13:38	Hail	<u>1.75 in.</u>	0	0	'0.00K	<u>0.00K</u>

GOODWATER	03/11/1996	19:04	Hail	0.75 in.	0	0	10.00K	10.00K
ROCKFORD	01/08/1997	09:45	Hail	0.75 in.	0	0	3.00K	0.00K
STEWARTSVILLE	02/16/1998	12:30	Hail	0.75 in.	0	0	0.00K	0.00K
WEOGUFKA	02/17/1998	04:00	Hail	1.00 in.	0	0	2.00K	0.00K
ROCKFORD	03/20/1998	10:25	Hail	1.00 in.	0	0	0.00K	0.00K
GOODWATER	01/1/1999	16:12	Hail	0.75 in.	0	0	0.00K	0.00K
ROCKFORD	05/13/1999	12:15	Hail	1.75 in.	0	0	5.00K	0.00K
EQUALITY	05/11/2001	14:00	Hail	1.00 in.	0	0	0.00K	0.00K
WEOGUFKA	05/27/2001	16:00	Hail	0.75 in.	0	0	0.00K	0.00K
WEOGUFKA	07/31/2002	17:30	Hail	0.75 in.	0	0	0.00K	0.00K
NIXBURG	08/20/2002	15:58	Hail	0.75 in.	0	0	0.00K	0.00K
ROCKFORD	05/02/2003	17:2	Hail	0.75 in.	0	0	0.00K	0.00K
GOODWATER	05/02/2003	19:11	Hail	0.75 in.	0	0	0.00K	0.00K
STEWARTSVILLE	05/16/2003	16:55	Hail	1.25 in.	0	0	0.00K	0.00K
STEWARTSVILLE	02/21/2005	11:24	Hail	0.75 in.	0	0	0.00K	0.00K
HANOVER	03/22/2005	23:51	Hail	0.75 in.	0	0	0.00K	0.00K
GOODWATER	04/22/2005	13:30	Hail	0.75 in.	0	0	1.00K	0.00K
EQUALITY	04/22/2005	14:21	Hail	0.75 in.	0	0	1.00K	0.00K
WEOGUFKA	05/20/2005	12:15	Hail	0.75 in.	0	0	0.00K	0.00K
WEOGUFKA	12/04/2005	14:28	Hail	1.00 in.	0	0	0.00K	0.00K
EQUALITY	12/28/2005	12:59	Hail	0.88 in.	0	0	0.00K	0.00K
KELLYTON	12/28/2005	13:54	Hail	0.88 in.	0	0	0.00K	0.00K
GOODWATER	04/19/2006	18:38	Hail	1.00 in.	0	0	0.00K	0.00K
KELLYTON	04/19/2006	18:40	Hail	1.00 in.	0	0	0.00K	0.00K
ROCKFORD	04/19/2006	19:54	Hail	1.00 in.	0	0	0.00K	0.00K
GOODWATER	05/13/2006	18:40	Hail	0.75 in.	0	0	0.00K	0.00K
NIXBURG	04/11/2007	16:00	Hail	1.75 in.	0	0	0.00K	0.00K
LAKE MITCHELL	04/11/2007	18:15	Hail	0.75 in.	0	0	0.00K	0.00K
LAKE MITCHELL	02/17/2008	13:20	Hail	0.75 in.	0	0	0.00K	0.00K
HANOVER	02/17/2008	13:30	Hail	1.50 in.	0	0	0.00K	0.00K
GOODWATER	02/17/2008	13:45	Hail	0.75 in.	0	0	0.00K	0.00K
COTTAGE GROVE	04/04/2008	15:45	Hail	0.75 in.	0	0	0.00K	0.00K
GOODWATER	04/10/2009	17:20	Hail	0.75 in.	0	0	0.00K	0.00K

IsALTER	04/10/2009	17:27	Hail	1.00 in.	<i>PfO</i>	0.00K	0.00K
NIXBURG	04/10/2009	17:45	Hail	1.75 in.	<i>a--to</i>	2Q.0ijK	0.00

SAITER	03/26/2011	13:17	H	5in.	p	0.00K	0.00K
ROCKFORD	03/26/2011	13:30	Hail	1.75 in.	0	0.00K	U.00K
COTIAGE GROVE	05/26/2011	13:58	Hail	1.75 in.	0	0.00K	0.00K
ROCKFORD	03/18/2013	15:16	Hail	1.00in.	0	0.00K	0.00K
ROCKFORD	03/23/2013	21:42	Hail	1.75 in.	0	0.00K	0.00K
Totals:					0	45.00K	0.00K

Location

The entire county is susceptible to damage from severe thunderstorms. Storms can range from small isolated storm cells that do much damage, to large far reaching minor storms that do only minimal damage. It is truly the "luck of the draw" when and where the storms appear.

Extent

In addition to winds from severe storms, hail and lightning also provide an impact on the area. Large hail, though rare can cause injury or loss of life. Normally hail is damaging to automobiles, crops and trees. Livestock left out in the open without shelter can also suffer damage and loss. Both lightning and high winds can 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. The following text describes the extent of some of the more damaging events.

24 March 1994- A house fire in the Rockford area was attributed to lightning.

15 June 1988 - Trees and power lines were down in the Richland community. Three people received minor injuries when a tree fell on their car as they were driving along SR 22.

13 February 2000- Several trees were blown down near the intersection of CR 50 and Church Street.

3 May 2009 -Several trees were blown down in the northwest portion of Coosa County.

17 June 2011- A large tree fell onto an 18-wheeler in AL-21, near the Stewartville community.

23 March 2013 -A large tree was uprooted, causing an automobile accident.

7 June 2014- Several trees were uprooted and power lines downed.

Probability

The probability of a severe storm occurring in Coosa County is based on the previous occurrences of storms. The numbers of hail events were not calculated into the equation as these typically occur within the severe storm. With the history of storms that have occurred within the County the probability of a severe storm occurring any time in any year is high. These storms do have a

Seasonal pattern to them. The springtime months (April, May and June) are the peak for severe storm (and tornadic) activity, with another rise in activity in late November or December. There is a high probability of this event occurring in the County. Over the past 47 years (1968-2015), 50 severe storm events have been recorded throughout the County. This indicates a 94% (high) chance in any year of a severe storm.

Flooding

Description

After spring rains, heavy thunderstorms, or winter snow thaws most communities throughout the United States experience some kind of flooding. Floods have proven to be the most common and widespread natural disasters-except fire. Floods can be slow or fast rising, but generally develop over a period of days. Floodwaters move very rapidly and can destroy natural and man-made structures in its path. Walls of moving floodwater can reach heights up to 20 feet and carry large debris as cargo.

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. Floods are natural events that are considered hazards only when people and property are affected.

The most common kind of flooding event is riverine flooding, also known as overbank flooding. The amount of water in the floodplains is a function of the size and topography of the contributing watershed, the climate, and land use characteristics. In steep valleys, flooding is usually rapid and deep, but of short duration, while flooding in flat areas is typically slow, relatively shallow, and may last for long periods of time.

Flash floods involve a rapid rise in water level, high velocity, and large amounts of debris, which can lead to significant damage that includes the tearing out of trees, undermining of buildings and bridges, and scouring new channels. The intensity of flash flooding is a function of the intensity of and duration of rainfall, steepness of the watershed, stream gradients, watershed vegetation, natural and artificial flood storage areas, and configuration of the streambed and 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, 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.

The Flood Insurance Rate Map (FIRM) for Coosa County and its municipalities signifies areas of 100-year and 500-year flood zones. These areas are designated as Special Flood Hazard Areas (SFHA).

History

Location	Date	Time	Type	Ditch	Property Damage	Crop Damage
Totals:				0	105.00K	5.00K
COUNTYWIDE	01/07/1998	09:30	Flash Flood	0	105.00K	5.00K
COUNTYWIDE	09/19/2009	09:00	Flash Flood	0	5.00K	0.00K
WEOGUFKA	03/09/2011	07:30	Flash Flood	0	0	75.00K
Totals:				0	105.00K	5.00K

Coosa County has experienced three recorded Flash Flood events from January 1, 1980 through March 31, 2015. Property damage has totaled \$105,000 during this period. Crop damage has totaled \$5,000 during the same period.

Location

Coosa County is bordered on the west by the Coosa River. The main tributaries that pose flooding hazards are Hatchet Creek, Weogufka Creek and Shelton Creek. The Coosa River also floods periodically backing up McSwain and Noname branches. Mitchell Lake and Dam and Lay Lake and Dam are located on the Coosa and serve as flood control devices as well as hydroelectric generators. These dams are owned and operated by Alabama Power Company.

Coosa County:

Foshee Road - This road experiences flooding in most heavy rains.

County Road 16: - Bridge experiences flooding in most heavy rains. Flagging or barricades by highway department occurs on a regular basis.

Rockford:

Main Street (Alabama Highway 21) – This road is the main thoroughfare through town. The downtown area experiences flooding during heavy rains. The road has been repaved so many times it has built up above the curbs and water flows outside of the drainage structure.

Goodwater:

County Road 64 - A creek located under this road is notorious for flooding.

Brownsville Road #7 (County Road 7) - This road experiences repeated flooding.

Woodlands Drive - There is a 60 inch pipe located under the roadway that in the past has been dammed up by beavers. The Town is constantly battling the creatures. Despite repeated attempts to eradicate the vermin, they keep returning. The Town has spent over \$17,000 in one incident where the beavers had the water backed up so high that the iron in the concrete bridge rusted. This caused water and gas lines to break when the bridge failed.

Kellyton: No reported flooding issues.

Extent

There are areas in Coosa County that are subject to periodic inundation. This can result in loss of life, property damage, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base. All of these situations adversely affect the public health, safety, and general welfare.

Probability

Flood probability and magnitude are highly location-specific. Truly accurate determinations of flood probability and magnitude require site-specific engineering studies and data gathering that is beyond the scope of this hazard profile. Countywide, floods are rated as a low hazard for the county and its municipalities.

The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent chance of occurrence in any year
Low	0%- 33%
Moderate	34% - 66%
High	67% - 100%

Jurisdiction	Number of Events	Time Frame	Annual Probability of Flooding Event per Jurisdiction
Coosa County	3	35 years	1%
Goodwater	3	35 years	1%
Kellyton	3	35 years	1%
Rockford	3	35 years	1%

While flooding does appear to rank low using this method, variables such as the man-made environment (impermeable surfaces, etc.), weather conditions (drought, "dry spells", or unusually "wet" season) can and do affect flooding throughout the county which results in greater or lesser impacts, depending on the existing weather conditions. Generally though, flooding is considered a low probability.

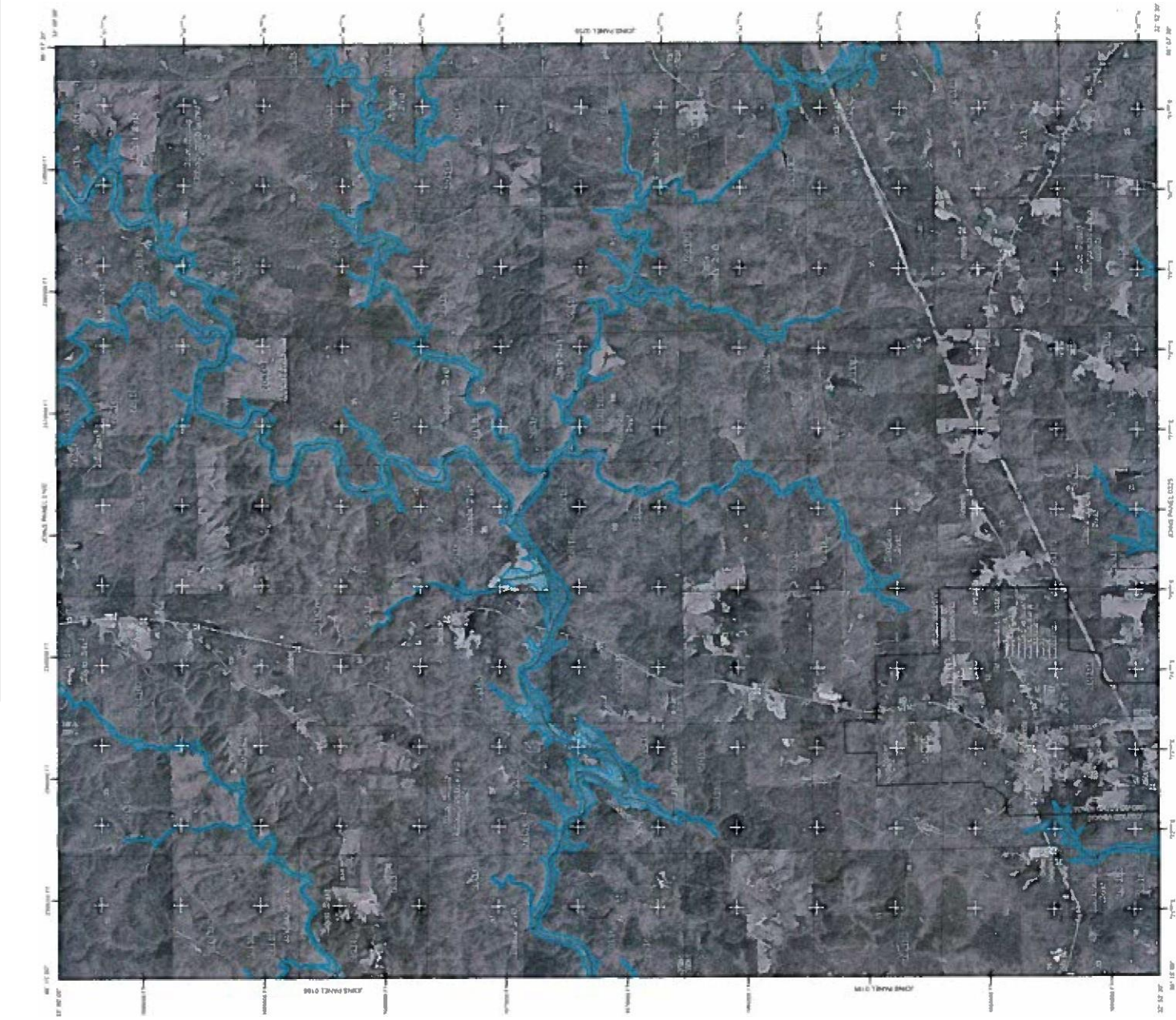
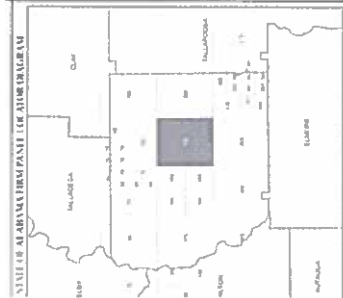
NOTES TO USERS

can be used as a supplementing for National Flood Insurance Program. It does not rely entirely on the community subject to flooding, particularly from storm surge, but it does have the advantage that the community does participate in the financing for the program. The program is a very important part of the overall flood risk management strategy for the community.

[illegible]

I wrote out in Spanish 1,000 HALLAZGOS (findings) that the physicians in the study had made. I then translated them into English and had a native speaker verify the translation. I had a second native speaker verify the translation and had a third person check the accuracy of the translation.

Communication Services and
 Technology
 a Geographic Survey
 J. 001222
 and David H. Gandy
 Learning, Maryland 2001, 2002
 '13 242

[illegible][illegible][illegible]

LEGEND

[illegible][illegible]

CTING IS A JOBS
 before delinquency is to submit the 0.7% annual interest rate.
 before to effect final transfer and compensation. The transfer

OTHER STUDIES PROTECTED AREAS (POTAS)

100% years and 100% are currently under review of additional to form of Public Natural System.

15% annual physical management inventory	100%
4.5% annual physical management inventory	100%
Physical management inventory	100%
Survey of inventory	100%

[illegible][illegible]

1.00000000
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524

I! r
 t
 !
 h
 li
 fa
 -3
 !"
 !

• **1**

[illegible][illegible]

<p>FIRM</p> <p>FLOOD INSURANCE RATE MA</p>	<p>PAID 02/26/00</p>
---	----------------------

COOSA COUNTY,
ALABAMA
AND INCORPORATED AREAS

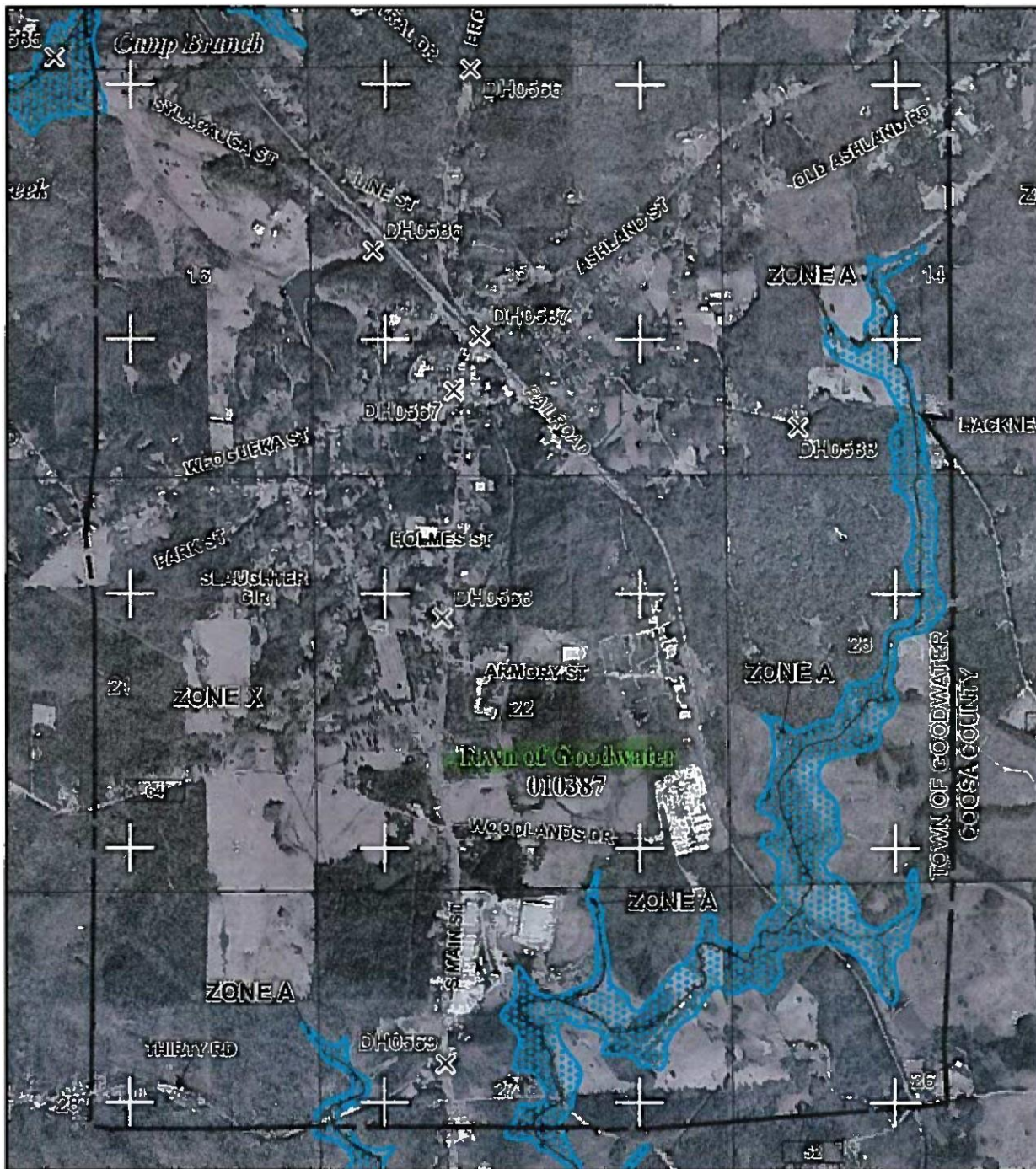
PANEL 225 OF 375
FILE LOCATOR DIAGRAM OR MAP
FOR PANEL LAYOUT

COMPASS	TABLES	INDEX
COMPASS	TABLES	INDEX
COMPASS	TABLES	INDEX

GOOD INS

EFFECTIVE DATE **MAP NUM**
NOVEMBER 26, 2010 **01837C67**

NATIONAL
State of Alabama
Federal Firearms Transaction Tax



MAP SCALE 1" = 2000'

0 2000 4000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0125C

FIRM

FLOOD INSURANCE RATE MAP

COOSA COUNTY,
ALABAMA
AND Incorporated AREAS

PANEL 125 OF 375
(SEE LOCATOR DIAGRAM OR MAP INDEX
FOR FIRMPANEL LAYOUT)

COOSACOUNTY'S
(OOQ) If Attm DOWN or

DI052
DI01a7

O 1
O 115

21ff!!
C
C

frCicet:» INLO.....O.L.-:I
fNOCirtinat!Hft
etaid"***CR.....D

EFFECTIVE DATE

MAP NUMBER

NOVEMBER 26, 2010

01037C0125C

State of Alabama
Federal Emergency Management Agency

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



MAP SCALE 1" = 2000'

00 SIDE === 2000 FEET

NFIP

PANEL0225C

FIRM

FLOOD INSURANCE RATE MAP

COOSA COUNTY,
ALABAMA
AND UNINCORPORATED AREAS

PANEL 225 OF 375

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

COOSA COUNTY	NURBER	11m.J.	C
ROCKFORD TOWNSHIP	0114-U	DT15	C

Map of Coosa County, Alabama, showing flood zones and street layouts. The map includes labels for 'ZONE X' and 'ZONE A' in various areas. A central area is labeled 'Town Of Rockford 010443'. A list of 'KEY TO NUMBERED STREETS' is provided: 1. SCHOOL ST, 2. JACKSON ST, 3. MAIN ST, 4. WASHINGTON ST, 5. SCHOOL BUS ST, 6. NIMBURG RD, 7. LINN ST, 8. ASH ST, 9. PARK GR. Other labels include 'COOSA COUNTY', 'TOWN OF ROCKFORD', 'DAVIDSON CREEK', 'MILLS BRIDGE RD', 'BOSWOOD LN W', 'HILL ST', 'NIMBURG RD', 'RICE RIVER', and 'HILL CREEK'. The map is overlaid with a grid showing coordinates from 572000mE to 575000mE.

EFFECTIVE DATE MAP NUMBER
NOVEMBER 26, 2010 01037C0225C



State of Alabama
Flood Insurance Rate Map

This is an official copy of a portion of the above referenced flood map. It is extracted from the FIRM On-Line. This map does not reflect changes or amendments which have been made subsequent to the date on the label block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.maf.fema.

National Flood Insurance Program

The following jurisdictions participate in the National Flood Insurance Program:

Coosa County (entry date 8/15/1984)

City of Goodwater {entry date 11/26/2010}

Town of Kellyton (not mapped)

The Town of Rockford does not participate in the National Flood Insurance Program. During a public meeting held on November 18, 2014 the town Council determined it would not be in the best interest of the residents to enter into the Program. The Council viewed the Program as restricting property owners' rights. There is a small portion of the town that is in a flood plain and that area is primarily undeveloped land and land used for agricultural purposes.

There are 34 NFIP Policies In-Force in the unincorporated area of the County. The collective value of these policies is \$5,390,200.00. The premium for these policies collectively is \$33,710, averaging \$991.47 per year per policy.

As of 4/30/2015 there have been 9 NFIP claims throughout Coosa County. Five were closed totaling \$138,524.69. Four were closed without payment. The Coosa County EMA Director has requested information from the Office of Water Resources, State Floodplain Manager regarding *Repetitive Loss properties and Severe Repetitive Loss properties*. That information request has been pending since 4/13/2015. Once the information is received, it will be included in this document. It should be noted that according to records available to the Coosa County EMA Director, that there have been no repetitive loss nor severe repetitive loss properties in Coosa County.

Continued compliance with the NFIP will be maintained through the most cost effective measures. Coosa County and its municipalities are extremely rural areas with limited resources. Through analysis of measures that could be taken to continue compliance with the NFIP, the following were found to be the most reasonable for the County and its municipalities:

Maintain enforcement of the NFIP ordinance.

Improve maintenance of County and municipal storm water drainage facilities.

Provide technical, zoning and policy information regarding flood hazards to developers, interested parties and the general public.

Winter Storms

Description

Winter Storms can vary from cold temperatures accompanied by freezing precipitation to blizzards. Coosa County is not accustomed to snow, ice, and freezing temperatures and lacks the equipment such as snowplows to respond to such events. Winter Storms negatively affect local agriculture, transportation systems, schools, businesses, and utilities. During a winter storm event many of the structures in the county suffer from power outages due to accumulation of ice

On power poles or lack proper heating systems rendering the structure too cold to inhabit. Temperatures below freezing also kill tender vegetation such as flowering plants and crops.

History

Location	Date	Time	Type	Inj	Property Damage	Crop Damage
COOSA	01/06/1996	20:00	Winter Storm	0	10.00K	11.00K
COOSA	12/18/1996	14:00	Winter Storm	0	15.00K	20.00K
COOSA	01/28/2000	00:00	Winter Storm	0	10.00K	0.00K
COOSA	03/01/2009	03:00	Heavy Snow	0	0.00K	0.00K
COOSA	02/12/2010	11:00	Winter Weather	0	0.00K	0.00K
COOSA	12/15/2010	07:00	Winter Weather	0	0.00K	0.00K
COOSA	02/09/2011	20:00	Heavy Snow	0	0.00K	0.00K
COOSA	03/28/2014	08:15	Winter Storm	0	0.00K	0.00K
Totals:				0	35.00K	21.00K

Location

The entire County is equally at risk for winter storms.

Extent

Coosa County has experienced many effects from winter storms such as frozen utilities (which resulted in power outages and busted water lines), icy and impassable roads and lost revenues from closed business and damaged crops. Casualties can be expected due to power outages and people being isolated with no heat sources. The most significant events occurred on January 6, 1996 and December 18, 1996. The following text describes the extent of some of the more intense storms experienced in the past.

6 January 1996 - A winter storm brought a mixture of freezing rain, sleet, and snow to the northern two-thirds of Alabama. Precipitation began as freezing rain and sleet but quickly changed to snow. The precipitation coated roads and caused serious travel problems across the northern sections of the state that lasted into Monday morning (the 8th). Some higher elevations of the northeast corner of Alabama had travel problems into Tuesday. Amounts were generally light with the highest snowfall reported at Huntsville International Airport with 2 inches. Most other locations across North Alabama reported one-quarter of an inch to an inch and a half.

18 December 1996- A snow storm that began in the early afternoon hours across the central sections of the state dumped 1 to 3 inches of snow on parts of the state. It was over by early evening. Schools and businesses let out early on the 18th across much of the area affected. A few roads became slick but there were no major travel problems reported. The snow remained on

the ground in some areas for about two days. Here is a list of snowfall totals by county: Autauga 2-3" Bullock 1" Chambers 2" Chilton 1" Clay 2" Coosa 2.5" Dallas 1" Elmore 2" Lee 2" Lowndes 2" Macon 1-2" Montgomery 2-3" Pike 1" Randolph 2-3" Russell 1-2" Tallapoosa 2"

28 January 2014- A mix of winter precipitation resulted in hazardous travel conditions across Coosa County. Snow accumulations ranged from three to four inches.

Probability

Information obtained from the National Climatic Data Center was used to determine the frequency and probability of winter storm events for Coosa County.

The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent chance of occurrence in any year
Low	0%-33%
Moderate	34%-66%
High	67%-100%

Since 1996, nine events have been recorded in Coosa County and the municipalities within its borders. Over the 19 year history, this results in a moderate (47%) probability of occurrence for this type of event.

HURRICANES

Description

A hurricane is a type of tropical cyclone, which is a generic term for a low-pressure system that Generally forms in the tropics. The cyclone is accompanied by thunderstorms and, in the Northern Hemisphere, a counterclockwise circulation of winds near the earth's surface. However, winds are not the only hazard that hurricanes present, hurricanes also produce storm surges, tornadoes, and inland flooding. Fresh water floods have accounted for more than half (59%) of U.S. tropical cyclones deaths over the past 30 years. These floods are why 63% of U.S. tropical

Cyclones deaths during that period occurred in inland counties.

Hurricane Category Chart

Category	Winds	Surge	Central Pressure
1- Minimal	74 - 95 mph or 64 - 82 kts	5 feet	less than 980 mb or 29.94 in
2- Moderate	96 - 110 mph or 83 - 95 kts	6 - 8 feet	965 - 979 mb or 28.50 - 28.91 in
3 - Extensive	111 - 130 mph or 96 - 113 kts	12 feet	945 - 964 mb or 27.91 - 28.47 in
4- Extreme	131 - 155 mph or 114 - 135 kts	13 - 18 feet	920 - 944 mb or 27.17 - 27.88 in
5- Catastrophic	greater than 155 mph or 135 kts	greater than 18 feet	less than 920 mb or 27.17 in

Though the center of Coosa County is located approximately 250 miles from the Gulf of Mexico, hurricanes and tropical storms have brought high winds and heavy rains to the area as they move north.

History

History teaches that hurricane disasters have occurred in the past and will again in the future. A lack of hurricane education and planning are common threads among all major hurricane disasters. When it comes to hurricanes, wind speeds do not tell the whole story. Hurricanes produce storm surges, tornadoes, and often the most deadly of all- inland flooding. Freshwater floods accounted for more than half (59%) of U.S. tropical cyclone deaths over the past 30 years. These floods are why 63% of U.S. tropical cyclone deaths during that period occurred in inland counties.

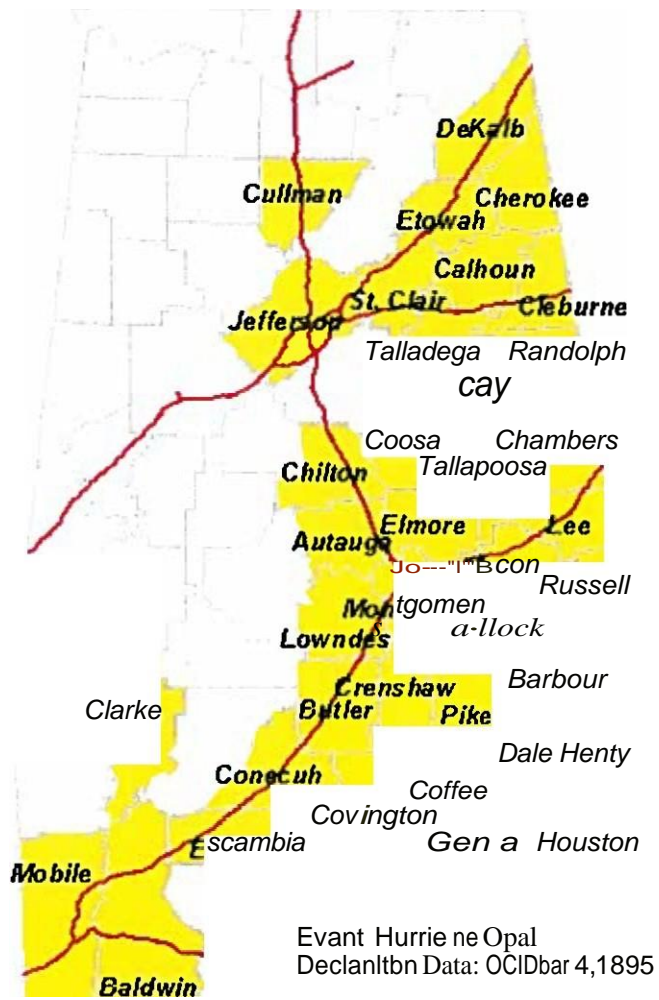
Location	Date	Time	Type	Dth	Inj	erty	mage	Crop Damage
COOSA	10/04/1995	12:00	H rricane opal/High Winds	2	0	0.18		10.0M
coosa	09/13/2004	12:00	Tropical Storm (Ivan)	0	0	0		0
coosa	07/10/2005	16:00	Tropical Storm (Dennis)	0	0	80.00K		0.00K
COOSA	08/29/2005	18:00	Tropical Storm (Katrina)	0	0	60.00K		0.00K
COOSA	08/23/2008	12:00	Tropical Depression (fay)	0	0	10.00K		
COOSA	11/09/2009	14:00	Tropical Depression (Ida)	0	0	2.00K		0.00K
Totals:				0	0	142.00K		10.00K

Location

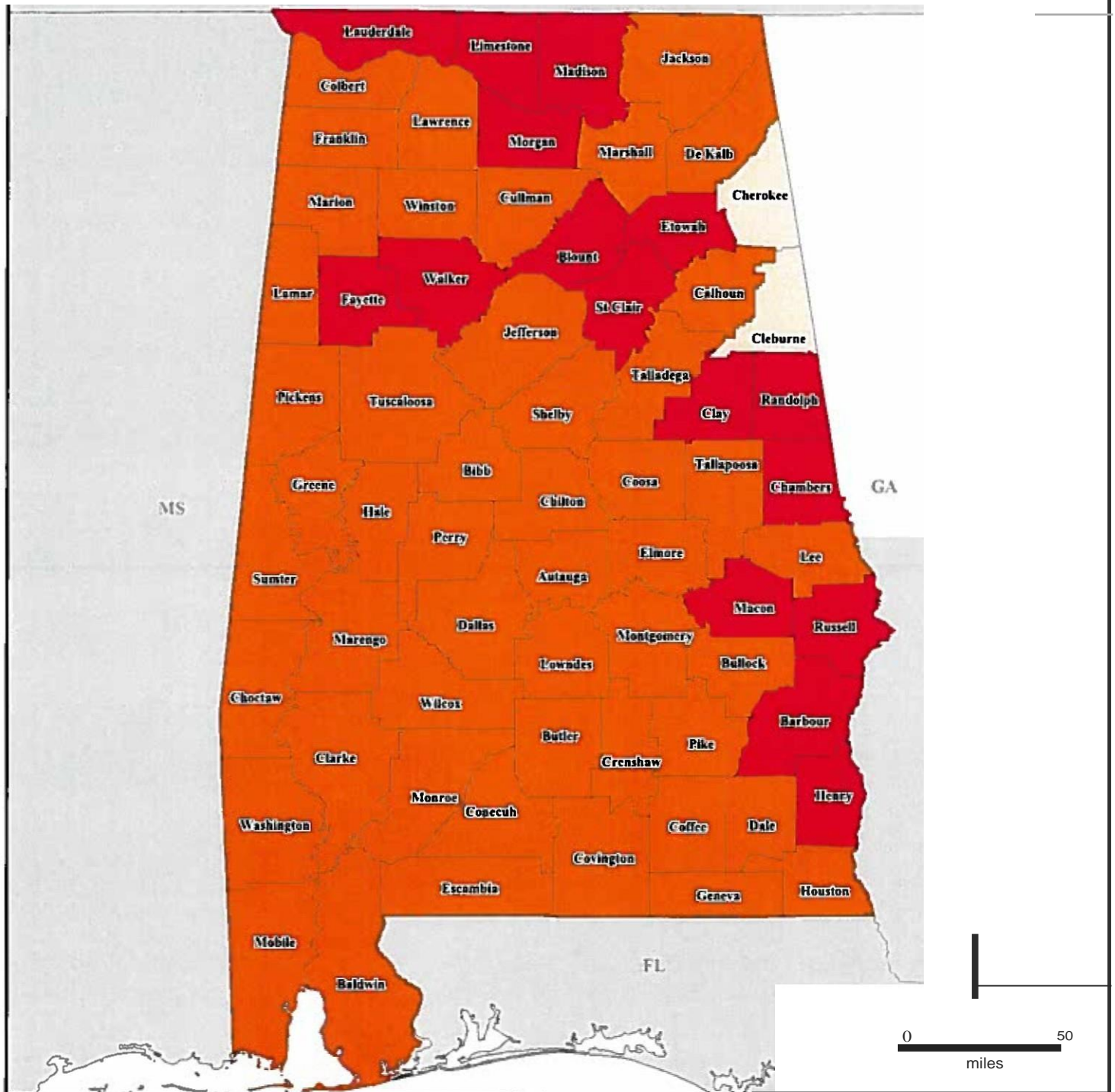
Generally, by the time a storm approaches Coosa County, it has been downgraded to a Tropical Storm. The entire County suffers the effects, with the developed areas resulting in more damages.

The following maps indicate the previous hurricane/tropical depression disaster declarations for the State of Alabama that have included Coosa County: Hurricane Opal in 1995, Hurricane Ivan in 2004, Hurricanes Dennis and Katrina in 2005.

Hurricane Opal, 1995



Hurricane Ivan
FEMA-1549-DR, Alabama
Disaster Declaration as of 12/03/2004



Location Map



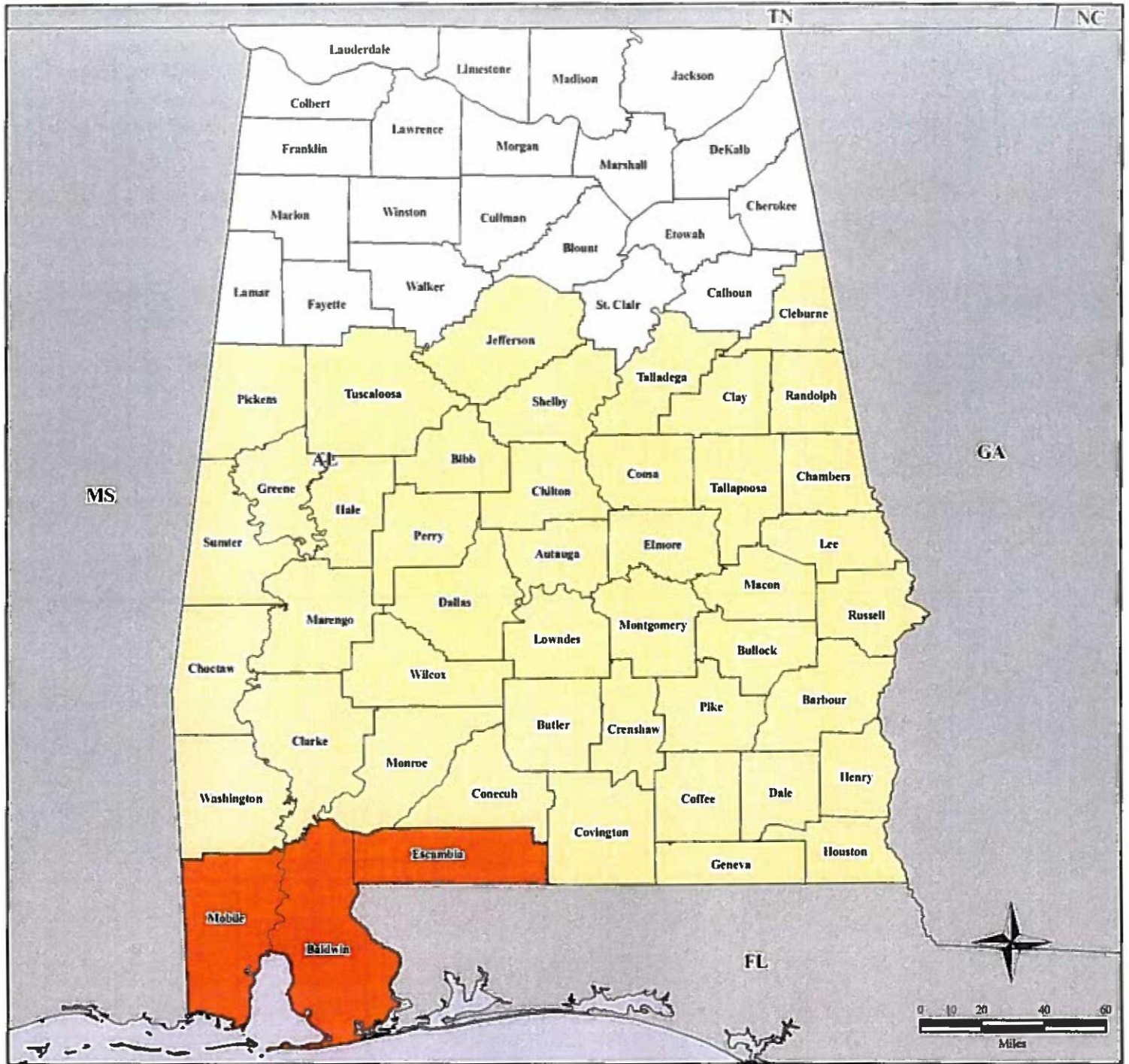
Legend

- Designated Counties
(All counties are eligible for Hazard Mitigation)
- Individual Assistance
 - Individual & Public Assistance
 - Public Assistance

FEMA

ITS Mapping and Analysis Center
Washington, DC
11/03/2004 – 15:29:28 EST

HURRICANE DENNIS
FEMA-1593-DR, Alabama
 Disaster Declaration as of 08/04/2005



Location Map

Legend



- Designated Counties
- CJ** No Designation
- CJ** Individual and Public Assistance
- CJ** Public Assistance



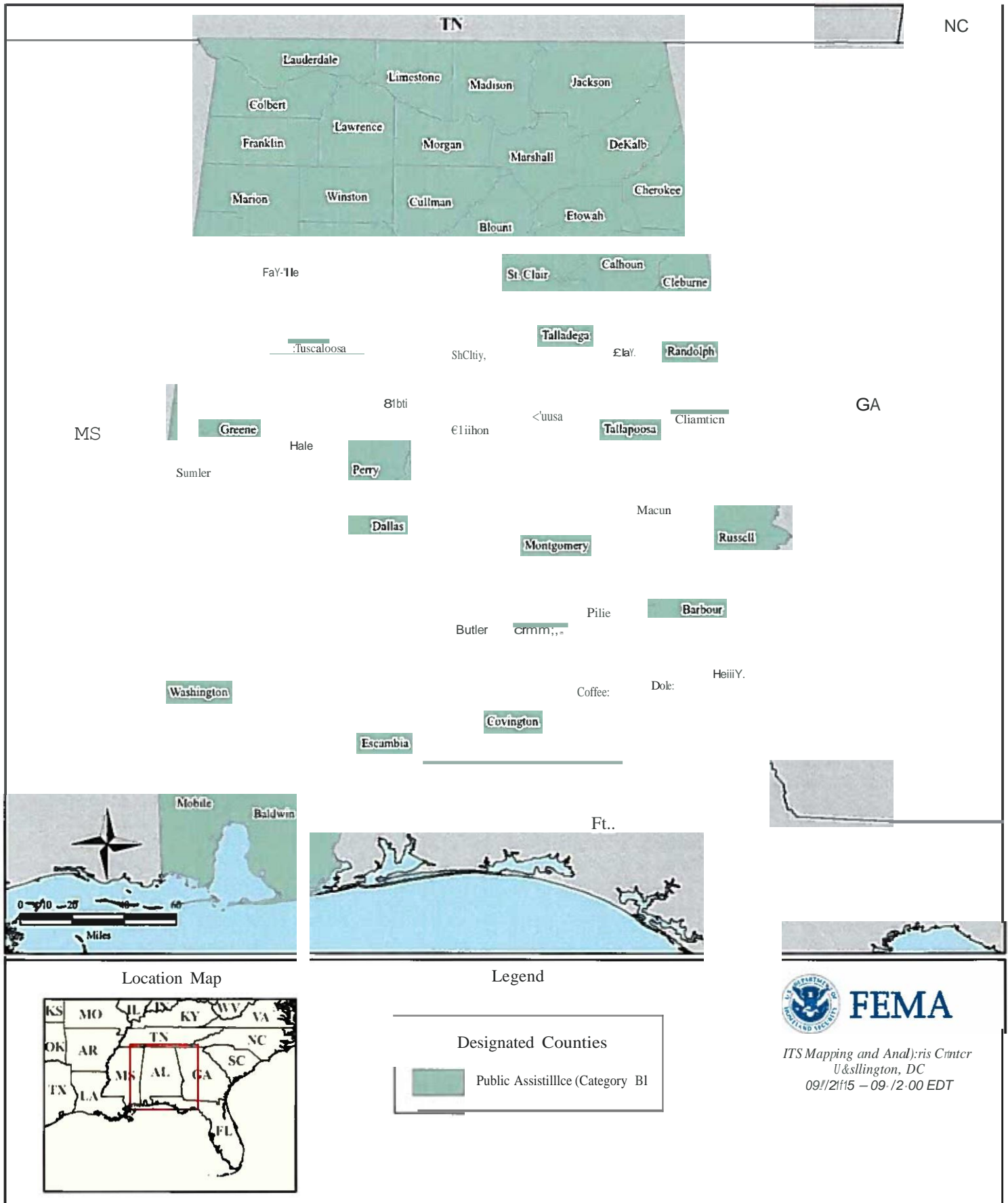
FEMA

ITS Mapping and Analysis Center
 Washington, DC
 08/05/05 - 09:15:00 EDT

HURRICANE KATRINA

FEMA-3237-EM, Alabama

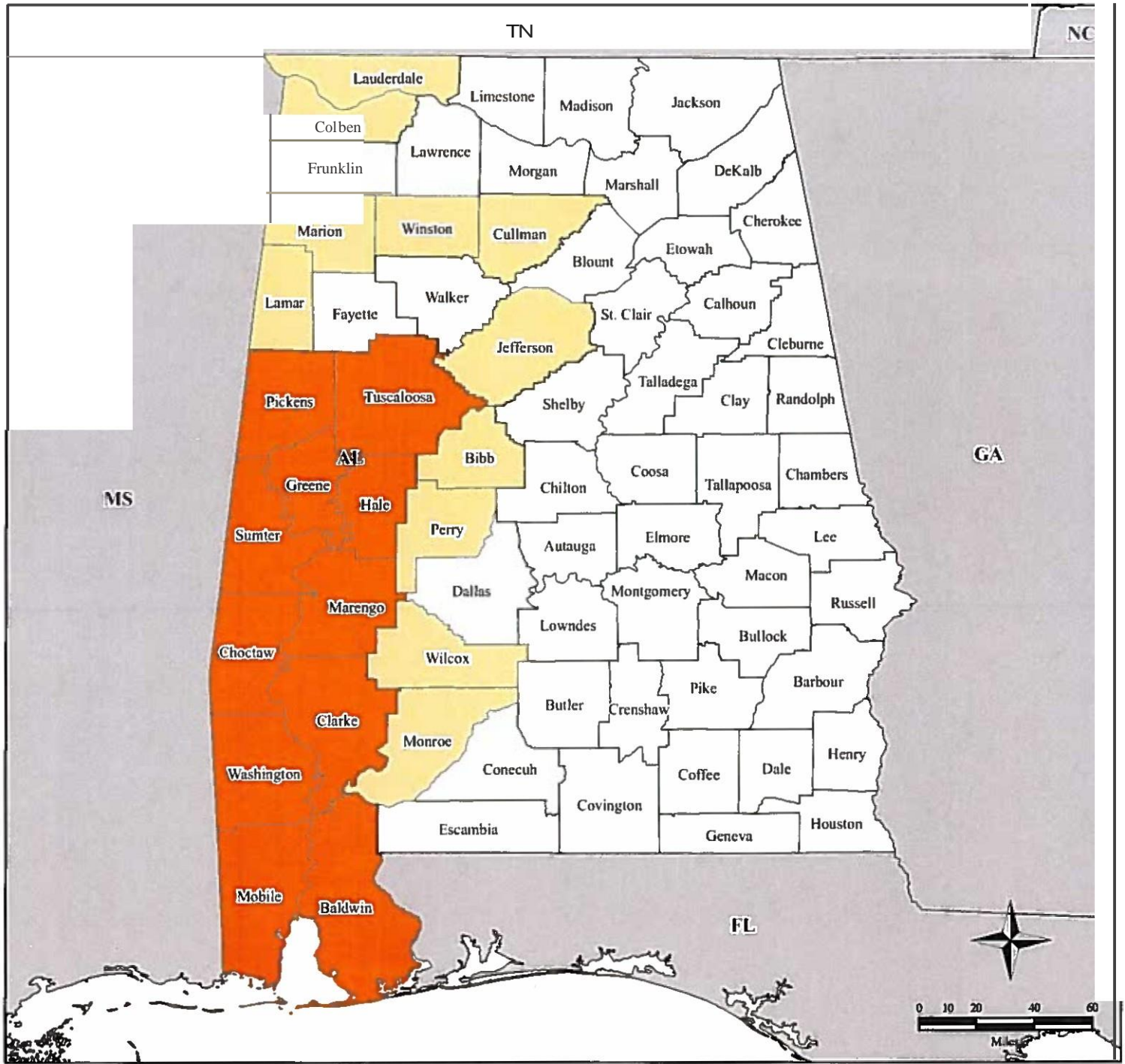
Emergency Declaration as of 09/10/2005



HURRICANE KATRINA

FEMA-1605-DR, Alabama

Disaster Declaration as of 10/05/2005



Location Map



Legend

Designated Counties	
! = J	No Designation
—	Individual and Public Assistance
C : J	Public Assistance



FEMA

ITS Mapping and Analysis Center
 Washington, DC
 10/05/05 - 18 04:00 EDT

Extent

Due to its location, approximately 250 miles from the nearest coastline, Coosa County would experience secondary effects from hurricanes and tropical storms consisting of strong winds, heavy rain and tornadic activity spawned from the dying hurricane. Street flooding, property damage and damage to buildings can be the extent expected with these types of events. Frequently, power outages accompany these storms when they reach the area. In a "worst case" scenario, the effects of Hurricane Opal would exist compounded with widespread flooding. The following text describes the damages and effects incurred from the previously mentioned storms.

October 4, 1995 - Hurricane Opal moved ashore in the Florida Panhandle then moved north northeast across the state of Alabama. Damage was extensive and no county in the state was spared some effect of the storm. Damage was the greatest in the eastern counties with damage decreasing from east-to-west across the state. Damage also decreased as you went north in the state. Damage varied with many trees, signs, and power lines downed. At the worst, 2.6 million people in Alabama were without electricity, some for over a week. The center of the storm entered the state near the Covington / Escambia County line on the Florida border. It moved north-northeast with the center moving just west of the city of Montgomery, near the City of Talladega, and near Fort Payne before exiting the state near the northeast tip. Primary damage came from strong wind, which toppled trees and power lines and damaged signs. Mobile homes were damaged both by falling trees and by strong wind. Wind speeds varied across the state. Heavy rain also caused creeks and streams to swell however, there were very few reports of water flooding buildings. Water damage occurred to structures in many locations where wind or falling trees damaged roofs. Damage figures are estimates from information obtained from the American Red Cross, Alabama Emergency Management Agency, and newspaper articles, which estimate total property damage for the state at \$100 million and crop damage at \$10 million.

September 16, 2004-Tropical Storm Ivan -Several trees were knocked down countywide due to Ivan. Minimal damages were reported.

July 10, 2005-Tropical Storm Dennis- Numerous trees and power lines were blown down across Coosa County. Many customers were without power for several hours.

August 29, 2005 - The remnants of Hurricane Katrina moved northward along the Alabama/Mississippi state line. Katrina was still a strong tropical storm as the center passed just west of North Alabama during the evening hours of August 29th. Most of North Alabama experienced tropical storm force wind gusts for several hours with a few wind gusts as high as 60 mph being reported. While structural damage was very limited, a few homes did receive minor roof damage due to the loss of a few shingles. Numerous trees and power lines were blown down across the entire area and thousands of people lost power. Katrina moved relatively quickly to the north and thus rainfall was limited. Rainfall amounts were around four to five inches near the Alabama/Mississippi line but tapered off significantly farther to the east with locations near the Alabama/Georgia line only seeing a half inch or less.

Probability

Twenty-six hurricanes have affected the State of Alabama since 1926, which translates into an annual probability of 31% that a hurricane would affect the State. Coosa County lies approximately 250 miles from the nearest coast. The severity of the storm would define the probability of the County feeling the effects of the storm. Hurricane Katrina had minimal impact on the County, while Hurricane Opal left the County and its municipalities crippled for days due to the infrastructure impact (power outage).

The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent Chance of Occurrence in any Year
Low	0%-33%
Moderate	34%-66%
High	67%-100%

Coosa County has a low probability of occurrence for this type of event.

The year 2005 was an unusually active year for hurricane activity. The State of Alabama was issued two Presidential Disaster Declarations for two out of 27 named storms. The following maps represent hurricane tracks for the past ten years. The maps indicate that by the time storms reach Coosa County they are significantly weakened from hurricane status.

Drought

Drought is a normal part of virtually every climate on the planet, including areas of both high and low normal rainfall. Drought is the result of a natural decline in the expected precipitation over an extended period of time typically one or more seasons in length. The severity of drought can be aggravated by other climatic factors, such as prolonged high winds and low relative humidity.

A drought's severity depends on numerous factors, including duration, and geographic extent as well as regional water supply demands by humans and vegetation. Due to its multi-dimensional nature drought is difficult to define in exact terms and also poses difficulties in terms of comprehensive risk assessments.

Drought differs from other natural hazards in three ways. First, the onset and end of a drought are difficult to determine due to the slow accumulation and lingering effects of an event after its apparent end. Second, the lack of an exact and universally accepted definition adds to the confusion of its existence and severity. Third, in contrast with other natural hazards, the impact of drought is less obvious and may be spread over a larger geographic area. These characteristics have hindered the preparation of drought contingency or mitigation planning by many governments.

Droughts are difficult to predict since they are based on slowly accumulating effects. Coosa County has experienced a few periods of drought in the past. There is no indication that this will change in the future. Droughts are cyclical in nature and will continue to afflict the area.

Type	Dth	Inj	Property Damage	Crop Damage
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K
Drought	0	0	0.00K	0.00K

COOSA	05/01/2008 00:00	Drought	0	0	0.00K	0.00K
COOSA	06/01/2008 00:00	Drought	0	0	0.00K	0.00K
COOSA	07/01/2008 00:00	Drought	0	0	0.00K	0.00K
COOSA	08/01/2008 00:00	Drought	0	0	0.00K	0.00K
COOSA	09/14/2010 00:00	Drought	0	0	0.00K	0.00K
COOSA	09/21/2010 00:00	Drought	0	0	0.00K	0.00K
COOSA	10/01/2010 00:00	Drought	0	0	0.00K	0.00K
COOSA	11/01/2010 00:00	Drought	0	0	0.00K	0.00K
COOSA	12/01/2010 00:00	Drought	0	0	0.00K	0.00K
COOSA	01/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	02/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	03/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	04/05/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	06/07/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	07/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	08/02/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	09/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	10/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	11/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	12/01/2011 00:00	Drought	0	0	0.00K	0.00K
COOSA	01/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	03/13/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	04/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	05/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	06/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	07/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	08/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	09/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	10/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	11/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	12/01/2012 00:00	Drought	0	0	0.00K	0.00K
COOSA	01/01/2013 00:00	Drought	0	0	0.00K	0.00K
COOSA	02/01/2013 00:00	Drought	0	0	0.00K	0.00K
Totals:						

Location

Drought is a widespread event. The precipitation that falls during rain events has a far reaching pathway that will affect many avenues of water resources such as crop irrigation, refilling lakes and ponds from runoff, ground water storage from seepage into the ground and stream and river flows. There are no areas of the County that are not susceptible to drought effects. All areas are equally at risk. Droughts are not small scale isolated events; they affect the entire county.

Extent

Drought impacts are wide-reaching and may be economic, environmental, and/or societal. The most significant impacts associated with drought in Coosa County are those related to agriculture. A significant lack of rainfall can cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding when droughts dissipate. Water supply for human consumption and activities are a major concern during periods of prolonged drought. Drought impacts increase with the length of a drought.

Since 1998 Coosa County has periodically had fire alerts issued due to drought emergencies. In 1999, and continuing through 2001 "No Burn Orders" were issued due to the severity of the dry conditions in the county. In 2001, Coosa County was authorized to receive livestock assistance due to the drought-diminished production of grass and hay.

It is difficult to list individual incidents related to drought due to the effects. An entire population and economy is affected by drought. For example, during the most recent drought an outbreak of the Southern Pine Beetle occurred. They thrive during dry spells and can kill entire forests. Through June of 2000, \$28 million worth of trees were dead, an economic loss of nearly \$291 million to the timber industry.

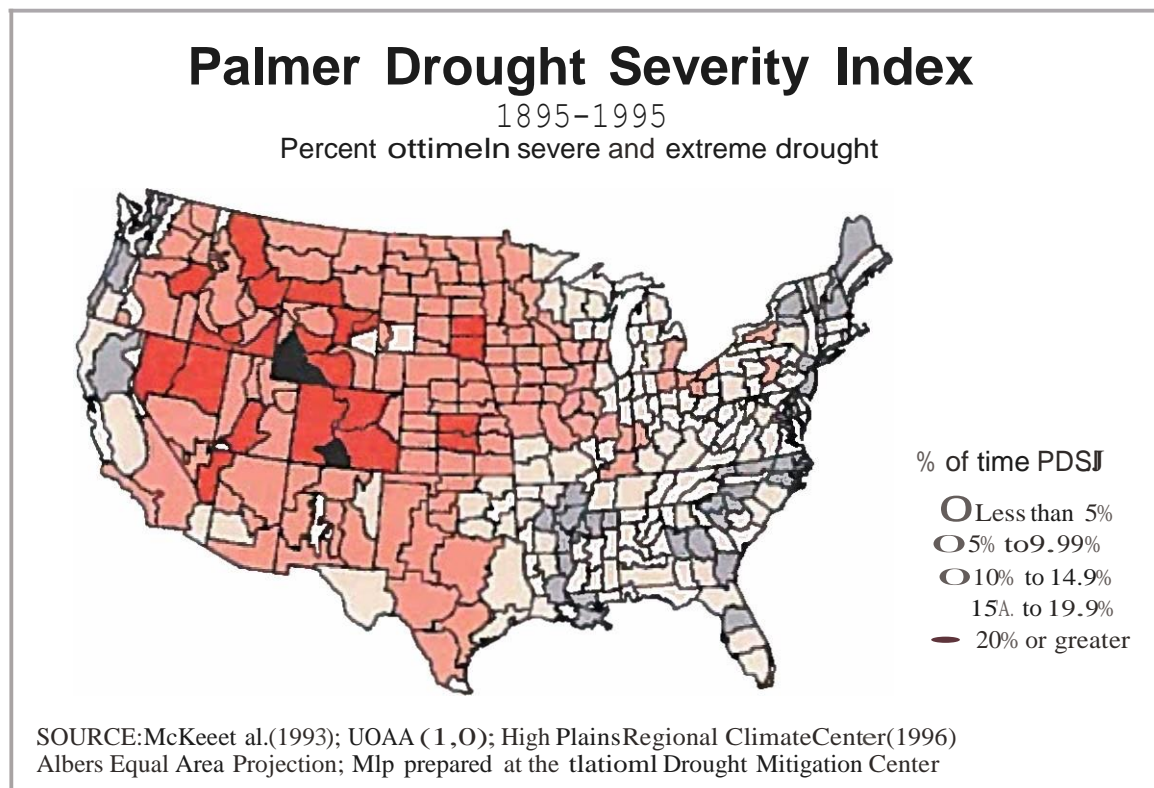
On October 28, 1999, Agriculture Secretary Dan Glickman had designated Georgia and 65 counties in Alabama as agricultural disaster areas due to losses caused by the 1999 drought.

November 3, 2000- UNITED STATES (drought) PR Newswire via COMTEX reported that the ongoing drought in Alabama that has lasted two and one half years, has caused lake levels of Alabama Powers reservoirs to drop to record lows. In addition, the National Weather Service reportedly shows that this is the longest drought period experienced by Alabama in more than 100 years.

The magnitude or impact of drought throughout Coosa County will vary according to how long, and severe the drought period is. A "worst case" scenario would be one in which lakes and rivers run dry due to an extended period without precipitation, setting the perfect stage for an abundance of wildfires due to the dried and decaying vegetation. With no water to fight fires, the economic impact would be immeasurable. Without proper firefighting, wild fires would overtake the small communities causing catastrophic results. The lack of water for agricultural purposes would bring about the death of livestock and crops. Without a reliable water supply, the residents would be forced to relocate as economic conditions deteriorated.

Probability

Although the county has recently experienced drought conditions, the long term probability of drought is considered low. The Hazard Mitigation Planning Committee reviewed the drought history from NCDC, along with discussion of previous events the committee members could recall and also by consulting the Palmer Drought Severity Index 1895-1995. Coosa County experienced severe and extreme drought 5-9.99 percent of the time during that 100-year period.



VI. Vulnerability

With the exception of flooding, all areas within the County and its municipalities are susceptible to effects from all identified hazards. Information from municipalities indicates that most flooding occurs in roadways due to inadequate drainage and culvert sizes. That's not to say flooding is not a financial burden, there are several dollars and man hours invested in repairing roadways and placing protective measures (such as rip rap and barricades) along banks and hazard areas to minimize damage and the dangers of flood waters. However, when flooding does occur, it is not of the magnitude that disrupts services and daily operations of the County and municipality. So far, flooding events experienced have been short lived and isolated. Citizens are able to go about everyday activities within hours.

The impacts of each identified hazard on the County and its municipalities can vary greatly with the intensity of the hazard. With the exception of flooding, all areas of the county are equally at risk for all other hazards that were profiled in this document.

POPULATION DISTRIBUTION

The following table describes the distribution of population in Coosa County and its municipalities:

JURISDICTION	2010 CENSUS POPULATION	2011 POPULATION ESTIMATE	2012 POPULATION ESTIMATE	2013 POPULATION ESTIMATE	2014 POPULATION ESTIMATE
Coosa County	9,370	9,247	9,115	9,023	8,879
Goodwater	1,475	1,421	1,398	1,382	1,357
Kellyton	217	210	207	205	201
Rockford	477	466	461	454	449

TOTAL POPULATION EXPOSED TO HAZARDS

	Tornado	Severe Storm	Drought	Hurricane	Winter Storm	Flood+
Coosa County	8,879	8,879	8,879	8,879	8,879	89
Goodwater	1,357	1,357	1,357	1,357	1,357	14
Kellyton	201	201	201	201	201	2
Rockford	449	449	449	449	449	5

+ Based on 1% of the population

The impacts of each identified hazard on the County and its municipalities can vary greatly with the intensity of the hazard. The following table illustrates estimated financial impacts for the County and municipalities per type of event. The estimates are based on an average of losses and damages reported over a 15-year time frame.

ESTIMATED FINANCIAL LOSS PER TYPE OF EVENT

	Tornado	Severe Storm	Drought	Hurricane	Winter Storm	Flood
Coosa County	\$27,2727	\$336,909	Insufficient Data	\$94,741	\$279,222	\$6,250
Goodwater	<\$1	\$17,000	Insufficient Data	\$94,741	\$279,222	\$6,205
Kellyton	<\$1	\$6,000	Insufficient Data	\$94,741	\$279,222	\$6,250
Rockford	\$100,000	\$100,000	Insufficient Data	\$94,741	\$279,222	\$6,250

#A less than \$1 loss rating does not mean that the event will not incur damages in the jurisdiction. Merely that historical record indicates that there have been no recorded events of this type for that jurisdiction.

The following table summarizes the amounts that are used to calculate losses when using FEMA's Cost Benefit module for computing losses when applying to the Hazard Mitigation Grant Program. This information is useful as it can serve as a guide for communities to familiarize

They with what kind of information will be required when applying for the Hazard Mitigation Grant Program, as well as what types of recordkeeping initiatives to put in place regarding damages and disasters.

Summary of Costs Associated with Elements Lost	
Displacement Time (Residential)	Occupants of flood damaged buildings are displaced for 30 days if building damages equal to% of building replacement cost. Occupants are displaced for an additional8 days for each percentage point that building damages exceed to%, up to a maximum of 365 days total.
Displacement Time (Personal)	Damages consisting of lost time have a value of \$21.16 per person per hour.
Functional Downtime	Each day of functional downtime for police, fire and patient care facilities costs society 10 times their daily budget.
Emergency Shelter	Providing emergency shelter has a value equal to 10 times the federal per diem rate for that place. The maximum per diem rate for Birmingham Alabama is \$138 per day (FY2009).
Electrical Service	Losing electrical service costs society \$t88.00 per resident per day.
Water Service	Losing all water service costs \$103 per day per resident.
Potable Water Service	Loss of potable water only costs \$43 per day per resident.
Firefighting Service	Loss of water for firefighting services has an associated loss of \$17.50 per resident per day.
Wastewater Treatment	Treatment losses are calculated at \$33.50 per resident per day.
Roads	Loss for road use is calculated at \$32.23 per vehicle per hour of delay plus the Federal personal vehicle rate for each vehicle mile travel of detour. For FY 2009 the Federal Personal Vehicle Rate is \$0.57.5 per mile.

All of the buildings in the county are vulnerable to most natural hazards that affect the County. The Coosa County Tax Assessors office estimates the following value of buildings within the County and its municipalities:

Coosa County Building Values by Type (x \$1,000)							
Residential	Commercial	Industrial	Agricultural	Religious/Non-Profit	Governmental	Utilities	County Total
193,215	49,763	15,426	5,097	12,285	30,858	86,861	393,504,000
Source: Coosa County Tax Assessors Office							

The values were reviewed with the County and verified as still valid during the 2015 plan update. The following table summarizes the types of structures that are located throughout the county that are vulnerable to the identified hazards.

Types of structures vulnerable to hazards						
	Tornado	Severe Storm	Hurricane/ Tropical Storm	Winter Storm	Flood+	Drought
Residential	6,142	6,142	6,142	6,142	62	6,142
Agricultural	4	4	4	4	1	4
Utilities	2	2	2	2	1	2
Manufacturing	9	9	9	9	1	9
Wholesale Trade	6	6	6	6	1	6
Retail Trade	19	19	19	19	2	19
Warehousing	5	5	5	5	1	5
Finance and Insurance	3	3	3	3	1	3
Real-estate	7	7	7	7	1	7
Professional	5	5	5	5	1	5
Waste Management and Remediation	6	6	6	6	1	6
Educational	2	2	2	2	1	2
Health Care	9	9	9	9	1	9
Food Services	3	3	3	3	1	3
Other	18	18	18	18	2	18

VII. MITIGATION STRATEGY

Ultimately, the goal of mitigation is to reduce or eliminate the long-term risk to people and their property from hazards and their effects. The members of the Coosa County Hazard Mitigation Committee, as well as all jurisdictions participating in the mitigation plan have identified the following goals for this mitigation plan:

To protect human life and health,
To protect natural resources and farmland,
To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges,
To increase public awareness of risk and mitigation,
To minimize expenditure of public money for costly flood control projects,
to minimize prolonged business interruptions,
To help maintain a stable tax base by providing for the sound use and development of flood prone areas,
To do all these things in a manner that is equitable to all citizens of the County.

A review of these goals was performed by the Mitigation Planning Committee for the 2015 Plan Update and the members were in agreement that these goals are still applicable. No revisions were made.

Existing Mitigation Activities

One of the existing ongoing activities in Coosa County is participation in the National Flood Insurance Program. The following table describes the municipalities and their level of participation in the NFIP.

National Flood Insurance Participants		
Jurisdiction Name	Date of Entry to NFIP	CRS Rating
Coosa County	8/15/1984	10
Goodwater	3/25/2008	10
Kellyton	Not mapped	N/A
Rockford	Not Participating	N/A

Continued compliance with the NFIP will be maintained through the most cost effective measures. Coosa County and its municipalities are primarily rural areas with limited resources. Through analysis of measures that could be taken to continue compliance with the NFIP, the following were found to be the most reasonable for the County and its municipalities:

Maintain enforcement of the NFIP ordinance.
Improve maintenance of County and municipal storm water drainage facilities.
Provide technical, zoning and policy information regarding flood hazards to developers, interested parties and the general public.

Cost-benefit review

Priority mitigation projects will only be implemented if the benefits are maximized and outweigh the associated costs of the proposed projects. The Hazard Mitigation Planning Committee performed a general evaluation of each mitigation measure, which might require FEMA funds. The Committee weighed the estimated costs for each mitigation measure against the projected benefits to be derived. For example, a project to acquire properties within the flood plain would provide the following benefits:

- (1) The project eliminates flood damages to of acquired properties,
- (2) The project reduces flood response costs,
- (3) The project reduces flood insurance claims, and
- (4) The project could increase the Community Rating System (CRS) rating.

A more detailed benefit-cost analysis will be required for each priority project to determine economic feasibility during the project-planning phase. Projects will also require a more detailed evaluation for eligibility and feasibility including social impact, environmental impact, technical feasibility and other criteria that measure project effectiveness. This detailed evaluation of projects will be performed in the pre-application phase of a grant request. Further, project implementation will be subject to the availability of FEMA grants and other sources of funds from year-to-year.

As with the development of the original plan, the planning committee reviewed various mitigation activities that could address the hazards identified and prioritized in the hazard analysis. Those that were deemed practical and cost beneficial were included in this document.

Project Prioritization

Projects were prioritized based on the following in order of importance, each implementing action has been provided a priority of low, medium, or high based on this review. The following provides a breakdown of the

Factors utilized to conduct this cost benefit review:

:

1. **High Priority** – Highly cost-effective, administratively feasible and politically Feasible strategies that should be implemented in fiscal years 2016/2017 and 2017/2018 and be continued.
2. **Medium Priority** – Strategies that have at least two of the following characteristics (but not all three) and should be implemented in fiscal years 2017/2018 to 2018/2019:
 - Highly cost-effective; or
 - Administratively feasible, given current levels of staffing and resources; or
 - Are politically popular and supportable given the current environment.
3. **Low Priority** – Strategies that have at least one of the following characteristics (but not two or three) and should be implemented in the next (5) years (by the end of 2019/2020):
 - Highly cost-effective; or
 - Administratively feasible, given current levels of staffing and resources; or
 - Are politically popular and supportable given the current environment.

All of the participating municipalities are small towns and rural areas with very limited resources. These municipalities prioritized projects by analyzing the immediate benefit that would be recognized by their implementation. When possible, municipalities prioritized their projects based on immediate benefit in addition to looking at overall economic development issues and goals. The Committee prioritized (or ranked) the hazards and based on the finding that flooding and high winds (from thunderstorms and/or tornadoes) are the most costly and recurring hazards, the following list addresses the most crucial mitigation needs. Individual municipalities and the County have their own project lists.

Each jurisdiction is responsible for implementing and administering its own strategy. In addition to the aforementioned prioritization criteria, actions will be prioritized in that they address the jurisdictions most crucial hazards, may address multiple hazards (comprehensive), and do not create issues for neighboring jurisdictions. The Hazard Mitigation Planning Committee reviewed project prioritization methods and determined no changes were necessary to this section.

MITIGATION ACTION ITEMS

These Action items are relative to all hazards. The following action items and projects have been prioritized by the mitigation committee and municipal leaders as items that are needed collectively throughout the county and municipalities. These items address existing as well as future buildings and infrastructure.

Identification of flood hazard areas in communities that do not have Flood Studies or Flood Insurance Rate Maps (Kellyton and Rockford).

Estimated Cost: Unknown at this time

Estimated Time Frame: 5 years

Implementing Party: County EMA and municipal leaders

2015-The Town of Rockford is now mapped. Kellyton remains to be mapped.

Project Prioritization: High

Installation of outdoor alert and warning system.

Estimated Cost: \$14,000.00 per unit

Estimated Time Frame: 3 years

Implementing Party: County EMA and municipal leaders

Several sirens have been installed throughout the most populated areas. However, complete coverage has not been achieved. The County EMA is currently implementing a HMG to install additional sirens. Project Prioritization: High

Construct safe rooms within new public buildings, such as new schools, libraries, and community centers where feasible.

Estimated Cost: Unknown at this time

Estimated Time Frame: As needed

Implementing Party: County EMA and municipal leaders

2015-the Towns have reviewed this project and have continued interest in its completion.

Project Prioritization: Medium

COOSA COUNTY

Foshee Road -Flooding of road in most heavy rains replace a series of three (3) pipes, (5', 5', 6') with a concrete culvert.

Without hydraulic review, it is estimated that this culvert would need to be a CD 10 x 8.

Estimated Time Frame: 5 years. Project Prioritization: Medium

Estimated Cost:

\$85,000.00

Implementing Party: County Commission and Engineer

Funding Sources: CDBG, ALDOT, DOT, HMGP, PDM

2015-the County has reviewed this project and has continued interest in its completion. Budgetary restraints have prevented this from being implemented thus far.

Coosa County Road No. 16–Flooding of roadway in most heavy rains. Flagging or barricades by highway department on regular basis.

Replace a 50-foot long structure with a new concrete bridge structure.

Estimated Time Frame: 5 years

Estimated Cost: \$150,000.00

Implementing Party: County Commission and Engineer

Project Prioritization: Medium

Funding Sources: CDBG, ALDOT, DOT, PDM

2015- County has reviewed this project and has continued interest in its completion.

Budgetary restraints have prevented this from being implemented thus far.

Investigate the feasibility of retrofitting the Coosa County Courthouse to withstand winds of 200 MPH (the recommended wind rating based on wind zones in the southeast).

Estimated Time Frame: 3 Years

Estimated Cost: Unknown cost at this time.

Responsible Party: Coosa County Commission and EMA Director/County Engineer

Funding Source: HMGP, PDM

Project prioritization: Medium

2015-the County has reviewed this project and has continued interest in its completion.

Budgetary restraints have prevented this from being implemented thus far.

GOODWATER

Community wide–Construct a storm shelter for community wide use.

Estimated Time Frame: 5 Years

Estimated Cost: \$75,000.00

Responsible Party: City Council

Project prioritization: Medium

Funding Source: HMGP, PDM, CDBG

2015-the Town has reviewed this project and has continued interest in its completion. Budgetary restraints have prevented this from being implemented thus far.

Community wide – Installation of 4 severe weather-warning sirens to cover the city and police jurisdiction.

Estimated Time Frame: 2 Years

Estimated Cost: \$56,000.00 (4 sirens at \$14,000 each including installation)

Responsible Party: City Council

Funding Source: HMGP, PDM, CDBG

Project prioritization: Medium

2015-the Town has received two sirens. There is interest in acquiring two more.

County Road 64 – Areas of this road within City limits experiences repeated flooding.

Existing drainage pipe requires enlargement.

Estimated Time Frame: 5 years

Estimated Cost: Unknown at this time.

Responsible Party: Town of Goodwater

Funding Sources: CDBG, HMGP, FMA, PDM, City Funds

Project prioritization: Medium

2015- The Town has reviewed this project and has continued interest in its completion.

Budgetary restraints have prevented this from being implemented thus far.

Brownville Road (County Road 7) - Areas of this road within City limits experiences repeated flooding. Existing drainage pipe requires enlargement.

Estimated Time Frame: 5 years

Estimated Cost: Unknown at this time

Project prioritization: Medium

- Responsible Party: Town of Goodwater

Funding Sources: CDBG, HMGP, FMA, PDM, City Funds

2015- The Town has reviewed this project and has continued interest in its completion.

Budgetary restraints have prevented this from being implemented thus far.

Woodlands Drive -This road is susceptible to flooding. The flooding is exacerbated by beavers building dams in the pipe under the road which serves as a drainage canal. The town proposes to enlarge the pipe as well as institute a beaver eradication program.

Estimated Time Frame: 5 years Estimated Cost: Unknown at this time.

Project prioritization: Medium

Responsible Party: Town of Goodwater

Funding Sources: CDBG HMGP, FMA, PDM, City Funds

2015- The Town has reviewed this project and has continued interest in its completion. Budgetary restraints have prevented this from being implemented thus far.

KELLYTON

Community wide-Construct a storm shelter for community wide use.

Estimated Time Frame: 3 Years

Estimated Cost: \$45,000.00

Responsible Party: City Council

Funding Source: HMGP,PDM,CDBG

Project prioritization: Medium

2015-the Town has reviewed this project and has continued interest in its completion. Budgetary restraints have prevented this from being implemented thus far.

Action Item: In the next update, if funding becomes available, further consideration for mitigation projects will be given to existing structures and infrastructure.

ROCKFORD

There is an area along State Highway 231 and 22 that floods constantly. Drainpipes require replacement. Floodwaters run down School Street. Since these are State Highways, negotiations with the Alabama Department of Transportation need to be initiated to take steps in eliminating this hazard to the community.

Estimated Time Frame: 5 Years

Estimated Cost: \$125,000.00

Project prioritization: Medium

Responsible Party: City Council and Utilities Director

Funding Source: HMGP, PDM, CDBG, DoT, ALDOT

2015-the Town has reviewed this project and has continued interest in its completion. Budgetary restraints have prevented this from being implemented thus far.

Community wide-Construct a storm shelter for community wide use.

Estimated Time Frame: 5 Years

Estimated Cost: \$50,000.00

Project prioritization: Medium

Responsible Party: City Council

Funding Source: HMGP, PDM, CDBG

2015-the Town has reviewed this project and has continued interest in its completion. Budgetary restraints have prevented this from being implemented thus far.

Purchase a backup generator for Rockford Water Authority. At this time if the power supply is interrupted for the water authority the water supply for the community is limited to 16 hours. The purchase of a backup generator will ensure to operation of this critical facility for residents as well as emergency services.

Estimated Cost: \$60,000.00

Estimated Time Frame: 3 Years

Responsible Party: Rockford Water Authority

Funding Source: HMGP, PDM

Project prioritization: Medium

2015- The Town has reviewed this project and has continued interest in its completion. Budgetary restraints have prevented this from being implemented thus far.

VIII.PLAN MAINTENANCE

The Plan Maintenance Procedures were reviewed by the Hazard Mitigation Planning Committee and through discussion and reflection of past disaster declarations, it was determined that no changes should be made regarding the verbiage of incorporation of action items into the planning document between plan updates.

Monitoring, Evaluating and Updating the Plan

Municipal employees that serve on the Hazard Mitigation Planning Committee will be responsible for monitoring the status of their own mitigation measures. The municipalities will report on an annual basis to the EMA Director with an update of the status of the implementation items, specifically which items have been completed, are in progress or are no longer considered a viable action. Regular plan maintenance and monitoring will be the responsibility of each individual municipality. The following are the positions with this responsibility:

Coosa County-EMA Director and County Commissioners
Goodwater-Mayor and Street Superintendent
Kellyton -Water Department Manager
Rockford-Mayor and Public Works Director

The plan will undergo a comprehensive review every five years by the Coosa County EMA, Hazard Mitigation Committee, municipalities involved and citizens. This will allow for evaluation of the effectiveness of the plan and allow for any review and revision of the hazard vulnerability, risk factors, and mitigation strategies. It will be the responsibility of the Coosa County EMA Director to notify Mitigation Planning Committee members, municipalities and the public of the plan review. Following each disaster declaration the plan will be reviewed to add any necessary changes or updates. At the first LEPC meeting of the calendar year, municipalities will have the ability to add any additional mitigation strategies by proposing the strategies to the LEPC. It is realized that some amendments or revisions may occur during emergencies or disasters and therefore, timeliness will be essential. It is for this reason that the committee has deemed it not necessary to hold a meeting but rather, have consultation with other committee members for plan updates and revisions. These consultations, especially during times of emergency or disaster declarations, can take place via telephone, e-mail or in writing, or in person. The entire Committee need not be consulted for this amendment however; at a minimum those consulted will consist of:

The Chief Elected Official of the Municipality wishing to amend the Plan
A member of the EMA Staff
A member of the Coosa County Commission or the County Administrator

Additionally, if changes are made that affect only one jurisdiction, the changes to the Plan need only be readopted by the affected jurisdiction.

In determining whether to recommend approval or denial of a Plan amendment request, the following factors will be considered:

-
1. There were errors or omissions made in the identification of issues or needs during the preparation of the Plan;
 2. New issues or needs have been identified that were not adequately addressed in the Plan;
 3. There has been a change in information, data or assumptions from those on which the Plan was based.

Incorporation into Existing Planning Mechanisms

This document will be incorporated into the Coosa County Emergency Operations Plan administered through the EMA office. This plan will also be adopted as an amendment to all local comprehensive plans in localities that have an adopted plan in place (Currently the City of Goodwater is the only entity within the County that has participated in Comprehensive Planning).

Hazard Mitigation Planning Committee Members involved in existing planning mechanisms will be responsible for integrating appropriate elements of the Hazard Mitigation Plan into those planning efforts. During the planning process for new, amended, revised, or updated local planning documents, the local party responsible for the planning document will provide a copy of the hazard mitigation plan to each respective advisory committee member or departmental staff person. The local planning entity will recommend the advisory committee members or departmental staff person to ensure that all goals and strategies of new, amended, revised and updated local planning documents are consistent with the hazard mitigation plan and will not contribute to an increase in the local jurisdiction's vulnerability to the impacts of natural hazards.

Plans to which this provision may apply include, but are not limited to:

- Comprehensive plan
- Capital Improvements Plan
- Transportation Plan

And other local planning documents, when appropriate.

County government is very limited in scope and authority in the State of Alabama and does not have the manpower, authority or fiscal capabilities to guide and control development within the unincorporated areas of the County. There are no mandatory State imposed planning requirements in Alabama for counties or municipalities. A municipal government *may* participate in planning (Zoning, Comprehensive Planning and Capital Improvements Plans) on a voluntary basis.

Appendix I

Coosa County Hazard Mitigation Plan Update

Mitigation Planning Meeting Supporting Documentation

Coosa County Hazard Mitigation Plan Plan Update Planning Meeting February 4, 2014

AGENDA

1. Overview and need for mitigation planning
 2. Existing Hazard Mitigation Plan review
 3. Natural Hazard discussion, identification and prioritization
 4. Homework assignment
-

The first meeting of the Hazard Mitigation Plan update was held at the Coosa County Forestry Office, during a Coosa County Volunteer Firefighters Association meeting. This meeting was held on February 4, 2014 at 6:00 pm. The sign in sheet is on file at the Coosa County EMA Office and the Volunteer Firefighters Association.

Fire? 0<1?2 3

Flooding?	00)2 3
Hurricanes?	0(!)2 3
Severe Storms?	0 1 0 3
Tornadoes?	0 1 2®
Winter Storms?	0 1 2(3?
Other hazard not identified;	
_____	0 1 2 3
_____	0 1 2 3

2. How vulnerable to damage are the critical facilities within your jurisdiction/agency to:

Drought?	0CP2 3
Earthquakes?	0 2 3
Fire?	00>2 3
Flooding?	0 (1}23
Hurricanes?	0!(2)3
Severe Storms?	0 1 2r!>
Tornadoes?	0 1 2§1
Winter Storms?	0 1t2)3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

3. Does urisdiction/agency have any infrastructure associated with it?

NO

If so, how vulnerable to damage is your infrastructure to;

Drought?	0<!12 3
Earthquakes?	o<D2 3
Fire?	0 1(2)3
Flooding?	0 23
Hurricanes?	0 1<ZB
Severe Storms?	0 1 2
Tornadoes?	0 1 2[{})
Winter Storms?	0 1gJI
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

Do you have a vulnerability assessment for the hazard eating your jurisdiction/agency? YES

If yes, please provide a copy of the assessment or bibliographic citation if a published document.

Do you have a record of damages incurred during past events (flood, fire, earthquake, severe storm, etc.)? YES

If yes, please provide a copy of the record.

Please identify any critical infrastructure for your jurisdiction/agency with approximate value:

CoLtM-ftg"s.zc: /)G.: I / C. 'he \.:1-a q J -cr"7owwf'.r:> /

Please provide any information or comments you feel would be beneficial to the development of the Coosa County Hazard Mitigation Plan update:

Please return this completed form to:

Mr. Les Sellers

Coosa County Emergency Management Agency

P. O. Box 10

Rockford, AL 35136

Flooding?	0 1 2 3
Hurricanes?	0 1 2 3
Severe Storms?	0 1 2 3
Tornadoes?	0 1 2 3
Winter Storms?	0 1 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

2. How vulnerable to damage are the critical facilities within your jurisdiction/agency to:

Drought?	@ 1 2 3
Earthquakes?	0 1 (?) 3
Fire?	0 1 3
Flooding?	0 \. i) 2 3
Hurricanes?	0 < 1) 2 3
Severe Storms?	0 (j) 2 3
Tornadoes?	0 1 3
Winter Storms?	0 1 (V) 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

3. Does your jurisdiction/agency have any infrastructure associated with it?
YES NO

If so, how vulnerable to damage is your infrastructure to:

Drought?	0 1 2 3
Earthquakes?	0 1 2 3
Fire?	0 { 1) 2 3
Flooding?	0 (l) 2 3
Hurricanes?	0 1 2 3
Severe Storms?	0 1 (2) 3
Tornadoes?	0 \l) 2 3
Winter Storms?	0 1 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

Do you have a vulnerability assessment for the hazard eatening your jurisdiction/agency? YES

If yes, please provide a copy of the assessment or bibliographic citation if a published document.

Do you have a record of damages incurred during pas ents (flood, fire, earthquake, severe storm, etc.)? YES _Ng)

If yes, please provide a copy of the record.

Please identify any critical infrastructure for your jurisdiction/agency with approximate value:

(:f/;-e 1yJ-P.t oflf:..

Please provide any information or comments you feel would be beneficial to the development of the Coosa County Hazard Mitigation Plan update:

Please return this completed form to:

Mr. Les Sellers

Coosa County Emergency Management Agency

P. O. Box 10

Rockford, AL 35136

Flooding?	0 11>3
Hurricanes?	0 2.3
Severe Storms?	0 1 2(j)
Tornadoes?	0 1({>3
Winter Storms?	01 3
Other hazard not identified:	
_____	0123
_____	0123


2. How vulnerable to damage are the critical facilities within your jurisdiction/agency to:

Drought?	0 1(2)3
Earthquakes?	OJ@3
Fire?	0 1a'3
Flooding?	O(j)2 3
Hurricanes?	0 (]123
Severe Storms?	0 1 3
Tornadoes?	012 (2)
Winter Storms?	0103
Other hazard not identified:	
_____	0123
_____	0123


3. Does your jurisdiction/agency **hay** infrastructure associated with it?
YES

If so,how vulnerable to damage is your infrastructure to:

Drought?	0123
Earthquakes?	0123
Fire?	0123
Flooding?	0123
Hurricanes?	0123
Severe Storms?	0123
Tornadoes?	0123
Winter Storms?	0123
Other hazard not identified:	
_____	0123
_____	0123

Do you have a vulnerability assessment for the hazards threatening your jurisdiction/agency? YES 

If yes, please provide a copy of the assessment or bibliographic citation if a published document.

Do you have a record of damages incurred during past events (flood, fire, earthquake, severe storm, etc.)? YES 

If yes, please provide a copy of the record.

Please identify any critical infrastructure for your jurisdiction/agency with approximate value:

Please provide any information or comments you feel would be beneficial to the development of the Coosa County Hazard Mitigation Plan update:

Please return this completed form to:

Mr. Les Sellers

Coosa County Emergency Management Agency

P. O. Box 10

Rockford, AL 35136

COOSA COUNTY NATURAL HAZARD MITIGATION PLAN UPDATE

HAZARD PRIORITY AND RANKING WORKSHEET

Please answer the following questions for your jurisdiction/agency:

Hazard Assessment Information:

Please rank the following types of hazards in terms of what you feel pose the most threat to your jurisdiction/agency (1 being most vulnerable to, 2 being the next vulnerable, and so on).

Earthquake	7
Tornado	(f)
Severe Storm	(i)
Winter Storm	@
Flooding	@) Fire
	(f)
Hurricane (or Tropical Storm)	@
Drought	@
Other not mentioned:	
_____	_____
_____	_____

Please circle your answer for the following questions indicating how vulnerable each item is to the identified hazard. Use the following scale:

0 = Don't Know

1 = Minimally Vulnerable

2 = Moderately Vulnerable

3 = Extremely Vulnerable

1. How vulnerable to damage are the structures within your jurisdiction/agency to:

Drought?	(Q) 1 2 3
Earthquakes?	10' 1 2 3
Fire?	06) 2 3

Flooding?	0 1 3
Hurricanes?	0 1 2 3
Severe Storms?	0 1 2 3
Tornadoes?	0 1 2 3
Winter Storms?	0 1 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

2. How vulnerable to damage are the critical facilities within your jurisdiction/agency to:

Drought?	0 1 2 3
Earthquakes?	0 1 2 3
Fire?	0 2 3
Flooding?	0 3
Hurricanes?	0 1 0 3
Severe Storms?	0 1 2 3
Tornadoes?	0 1 2 3
Winter Storms?	0 1
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

3. Does your jurisdiction/agency have any infrastructure associated with it?

YES NO

If so, how vulnerable to damage is your infrastructure to:

Drought?	0 1 2 3
Earthquakes?	0 1 2 3
Fire?	0 1 2 3
Flooding?	0 1 2 3
Hurricanes?	0 1 2 3
Severe Storms?	2 3
Tornadoes?	0 1 2 3
Winter Storms?	0 1 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

Do you have a vulnerability **assessment** for the hazards threatening your jurisdiction/agency? **NO**

If yes, please provide a copy of the assessment or bibliographic citation if a published document.

Do you have a record of **damages** incurred during past events (flood, fire, earthquake, severe storm, etc.)? **NO**

If yes, please provide a copy of the record.

Please identify any critical infrastructure for your jurisdiction/agency with approximate value:

Please provide any information or comments you feel would be beneficial to the development of the Coosa County Hazard Mitigation Plan update:

Please return this completed form to:

Mr. Les Sellers

Coosa County Emergency Management Agency

P. O. Box 10

Rockford, AL 35136

COOSA COUN1Y NATURAL HAZARD MmGATION PLAN UPDATE
HAZARD PRIORITY AND RANKING WORKSHEET

Ray Community

Please answer the following questions for your jurisdiction/agency:
Hazard Assessment Information:

Please rank the following types of hazards in terms of what you feel pose the most threat to your jurisdiction/agency (1 being most vulnerable to, 2 being the next vulnerable, and so on).

Earthquake	\$
Tornado	_____
Severe Storm	_____a_____
Winter Storm	_____..")_____
Flooding	_____t_____ Fire
/ _____ Hurricane (or Tropical Storm)	
Drought	_____t..(_____
Other not mentioned:	
_____	_____
_____	_____

Please circle your answer for the following questions indicating how vulnerable each item is to the identified hazard. Use the following scale:

0 = Don't Know

1 = Minimally Vulnerable

2 = Moderately Vulnerable

3 = Extremely Vulnerable

1. How vulnerable to damage are the structures within your jurisdiction/agency to:

Drought?	0(!) 2 3
Earthquakes?	0 1 3
Fire?	0 1 2(j)

Flooding?	0(j) 2 3
Hurricanes?	0(D) 2 3
Severe Storms?	0 1 (g) 3
Tornadoes?	0 1 2 &
Winter Storms?	0(p) 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

2. How vulnerable to damage are the critical facilities within your jurisdiction/agency to:

Drought?	0(6) 2 3
Earthquakes?	0 1 3
Fire?	0 1 3
Flooding?	0(j) 3
Hurricanes?	0(i) 2
Severe Storms?	0 1 2 (Q)
Tornadoes?	0 1 2 (C)
Winter Storms?	0(i) 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

3. Does jurisdiction/agency have any infrastructure associated with it?

NO

If so, how vulnerable to damage is your infrastructure to:

Drought?	0(i) 2 3
Earthquakes?	0(V) 2 3
Fire?	0 1(2) 3
Flooding?	0(Q) 2 3
Hurricanes?	0() 2 3
Severe Storms?	0 1 2 (R)
Tornadoes?	0 1 2 (R)
Winter Storms?	0(j) 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

Do you have a vulnerability assessment for the hazards threatening your jurisdiction/agency? YES

If yes, please provide a copy of the assessment or bibliographic citation if a published document.

Do you have a record of damages incurred during past events (flood, fire, earthquake, severe storm, etc.)? YES

If yes, please provide a copy of the record.

Please identify any critical infrastructure for your jurisdiction/agency with approximate value:

Fire Station, Coosa County Jail, 100,000
Water Tank 100,000 gal - \$150,000

Please provide any information or comments you feel would be beneficial to the development of the Coosa County Hazard Mitigation Plan update:

Please return this completed form to:

Mr. Les Sellers

Coosa County Emergency Management Agency

P.O. Box 10

Rockford, AL 35136

HANOVER VFD

COOSA COUNTY NATURAL HAZARD MITIGATION PLAN UPDATE

HAZARD PRIORITY AND RANKING WORKSHEET

Please answer the following questions for your jurisdiction/agency:

Hazard Assessment Information:

Please rank the following types of hazards in terms of what you feel pose the most threat to your jurisdiction/agency (1 being most vulnerable to, 2 being the next vulnerable, and so on).

Earthquake	8
Tornado	5
Severe Storm	2..
Winter Storm	5
Flooding	1
Fire	
Hurricane (or Tropical Storm)	(..
Drought	7
Other not mentioned:	

Please circle your answer for the following questions indicating how vulnerable each item is to the identified hazard. Use the following scale:

0 = Don't Know

1 = Minimally Vulnerable

2 = Moderately Vulnerable

3 = Extremely Vulnerable

1. How vulnerable to damage are the structures within your jurisdiction/agency to:

Drought?	0 1 G'3
Earthquakes?	@ 1 2 3
Fire?	0 1 2 @ }

Flooding?	0 1 2 3
Hurricanes?	0 1 2 3
Severe Storms?	0 1 2
Tornadoes?	0 1 2
Winter Storms?	0 1 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

2. How vulnerable to damage are the critical facilities within your jurisdiction/agency to:

Drought?	0 1 2 3
Earthquakes?	0 1 2 3
Fire?	0 1 2 3
Flooding?	0 1 2 3
Hurricanes?	0 1 2 3
Severe Storms?	0 1 2 3
Tornadoes?	0 1 2
Winter Storms?	0 1 2
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

3. Does your jurisdiction/agency have any infrastructure associated with it?
YES

If so, how vulnerable to damage is your infrastructure to:

Drought?	0 1 2 3
Earthquakes?	0 1 2 3
Fire?	0 1 2 3
Flooding?	0 1 2 3
Hurricanes?	0 1 2 3
Severe Storms?	0 1 2 3
Tornadoes?	0 1 2 3
Winter Storms?	0 1 2 3
Other hazard not identified:	
_____	0 1 2 3
_____	0 1 2 3

Do you have a vulnerability assessment for the hazards threatening your jurisdiction/agency? YES (@)

If yes, please provide a copy of the assessment or bibliographic citation if a published document.

Do you have a record of damages incurred during past events (flood, fire, earthquake, severe storm, etc.)? YES

If yes, please provide a copy of the record.

Please identify any critical infrastructure for your jurisdiction/agency with approximate value:

Please provide any information or comments you feel would be beneficial to the development of the Coosa County Hazard Mitigation Plan update:

Please return this completed form to:

Mr. Les Sellers

Coosa County Emergency Management Agency

P. O. Box 10

Rockford, AL 35136

Coosa County Hazard Mitigation Plan Update
Planning Meeting August 28,
2014 -10:00 a.m. Coosa County
911Training Room Rockford, AL

AGENDA

1. Review of natural hazard events
2. Vulnerability Assessment
3. Goals of the mitigation plan

Coosa County Multi-Jurisdictional Hazard Mitigation Plan Update
 Planning Meeting
 August 28, 2014- 10:00 a.m.
 Coosa County 911 Training Room
 Rockford, AL

Sign-In Sheet

Name	Representing	Email Address	Title	
<i>fi/t/J J: .llCi.</i>	<i>.t{L/ s:5</i>			
<i>C'o ..Jth<J-</i>	<i>l4reCr Rc-cvSQ"" -Re.J tl..tLo S</i>	<i>of Kweo &,4/,A'l@ cit!f,ft..</i>	<i>#d-</i>	
<i>" Jc«- fl/lu t..LeA/oo""-c</i>	<i>77JLJ!V OF OC.k..!7J11..J</i>	<i>R.ocJ<.FcJAd /Ntl/y N'1ctJlltJcE</i>	<i>GM ltl(.. , (.6</i>	
<i>/ef<.R.l flAL£</i>	<i>DOSfe/YIA</i>	<i>DOS E.A£A: ',M100</i>	<i>, ..b</i>	<i>nh.</i>

Coosa County Hazard Mitigation Plan
Plan Update Planning Meeting
September 10, 2014

AGENDA

1. Existing Planning Mechanisms
2. NFIP Participation
3. Plan Review and Update Process
4. Development Changes
5. Completed Mitigation Items

Coosa County Multi-Jurisdictional Hazard Mitigation Plan Update
 Planning Meeting September 10,
 2014- 10:00 a.m. Coosa County
 911 Training Room Rockford, AL

Sign-In Sheet

Name	Representing	Email Address	Title
	CC::VSA e-M A-	CJsAe:N.A<Q\{A'rlco.	
	I(I r	IJ 1R...f!-rtOtR..
e &wtf d-	ft/e.y. ; e{SCC/e5GtAtf	Kvveowt'I c..fo,,Ju.r	
/<,'cJ<	J+a.		

Coosa County Hazard Mitigation Plan Update
Planning Meeting October 9,
2014-10:00 a.m. Coosa County
911 Training Room Rockford, AL

AGENDA

1. Mitigation strategy review and update
 2. Project prioritization
 3. Existing project status
 4. Plan Implementation
-

PUBLIC MEETING Nonee

1: TfiB Coosa Cou!ty EMA will bold' a publiC'mef:itiiftJ.
for the development ot ttle Cgosa County Hazard:
fitigation Pfarr. The tneeting will be held of.1-Octob
at..1fJ;Q0a.m. This meeting wiiJ be held at the-
Coesa County g.11 Office Ttainin\$ Plaom. For more
I. itff6JFf!1Jati(f)n please call Robin GaleF at 256,-31-674J

State of Alabama

Coosa County

I belore me, a notary pJblcin Mel forth& CO&a'lly 81dlla above ljsfad.personaly
..-.d JoSanrough (l&118dallliiil).who.by me duly SWORN.depQsas and says lhat

Myname is JoScab'ough. J.n1he Ollice- **Ma** (poaikln
/Xafi8AlLa.p11lbherexmamger) r:IThe Coosa County News
c:Newspaperj_

The Newspaper pltiBhed the allachBd legal **S** in the issue(s) of:
<trDdta 4 :?t'i (dales of publicatiola).
The **stm** ftl;J]titiraianwas\$:::tz56 . l11estm chalged by
the Newsp!Jpa"for said ptdcalia1 does not exceed thrt fowest cJassified
rate paid by fDDIDfclial aaabners fDr an adverli&emeld d sirailw size
and hquency in the same **ne_s**) in which the pWiic notice(s)
appeaed.

There ae no ag eemeaala between the Nett...and the ollica or aiiDmey
c:taged will the cby af placilag the all&dled legal adveftiBing notices
whereby any advaJiage...arpmfita cauedb.saidoraiiDrney:

K
AFFIANT

Swomandsubscribed 3 *dayd.2ciY!*


Notary Public

Coosa County Hazard Mitigation Plan
Plan Update Planning Meeting April
23, 2015

AGENDA

1. Plan Review and Update Process
 - Hazard history
 - Risk Analysis
 - Asset Inventory
 - Repetitive Losses
 2. Existing Planning Mechanisms
 - Alabama Hazard Mitigation Plan
 - County EOP
 - County HMP
 - Municipal Comprehensive Plans
 - Other operations plans
 - Integration of Planning Mechanisms
 3. Intergovernmental Review
 - DMA Requirement
 - Methods of review
 - Entities to be afforded the opportunity to review and comment
 4. Completed Mitigation Actions
 - County Actions
 - Municipal Actions
 - Intergovernmental Actions
-

Coosa County Multi-Jurisdictional Hazard Mitigation Plan Update
Planning Meeting
April 23, 2015 - 1:00 p.m. Coosa
County 911 Training Room
Rockford, AL

Sign-In Sheet

Name	Agency/Entity	Email Address	Title	Phone Number
/ERR! /- A-LE	C cM.A	C.ooVv.Q.@ \.1::@0.	- \) \ d().5f.c,- L\()I, 3()7
lv E .S E t....LER5	CC.EMI\	((\\@0\L\	;).s-lo-3 I{-d.\ B
Debra Jambeil	/ttl.v.,5-J {!g6Sc;.._		-(!_-	256-377-4416
JEFFREY Smith	4qe 'i t/5/)I) ;(., 11.1.1LC		4...d-r . i),.tl c. l\	33't- 67- &6
JJ4/Zf- Le U-t t4	e ""-4-4 c A-1.6.f0.A-M r= c c Coat/J	!Yt5iCC.ocp.C<t(f_C.Cc,li	Economic Community Development	334-315-2265
Boii/ALJ:J /? 11 ..J...J	r:105..1 j./,6! --;	Cl',..vk/ (!5J c &> 4- c, ...,r;	{'GJ tvr-y	1:1(- s 77-22(I
c5ct.S0-11 IA /1	f,-gocif.vQ KC ofe/ v""h	h:'tA"""" d, (- c c4c		b '?tfC(-fl /
fj:R 'f /hkft.-.: /	t-oocfiY-" f-il." l-c...., k/cr/c	lekur .Jedf,•,iM/1-u'. cl. :/'	Board	J...5'6- 7f/...g-7..76