



RANDOLPH COUNTY, ALABAMA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

2015

Prepared under the direction of the:

Randolph County EMA

and the

Randolph County Hazard Mitigation Planning Committee

By:



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Randolph County Multi-Jurisdictional Hazard Mitigation Plan

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SECTION 1: INTRODUCTION

Background

Randolph County Hazard Mitigation Plan

On October 30, 2000, the United States Congress passed the Disaster Mitigation Act of 2000, also known as DMA2K. Among its other features, DMA2K established a requirement that in order to remain eligible for federal disaster assistance and grant funds, localities must develop and adopt hazard mitigation plans as a condition of receiving mitigation project grants under the Pre-Disaster Mitigation (PDM) Program and the Post-Disaster Hazard Mitigation Program (HMGP). On February 26, 2002 (updated October 1, 2002 and October 28, 2003), the Federal Emergency Management Agency (FEMA) published an Interim Final Rule (IFR) updated to the Final Rule (FR) on October 1, 2013 that provides the guidance and regulations under which such plans must be developed. The Final Rule (FR) provides detailed descriptions of both the planning process that localities are required to observe, as well as the contents of the plan that emerges.

In 2005, Randolph County officially adopted the initial Randolph County Multi-Jurisdictional Hazard Mitigation Plan in response to the requirements of DMA2K and the Interim Final Rule (IFR) Section 201.6 (a). FEMA also approved this plan. In addition Section 201.6 (d) (3) mandates that a county update its plan every five years “to reflect changes in development, progress in local mitigation efforts, and changes in priorities.” The first update to the 2005 plan was approved in 2010. A limited amendment to the 2010 plan update was made in June 2011 (**Figure 1-1**). The 2015 version of this plan is the third plan revision in response to those requirements and the Final Rule (FR) Section 201.6.

Randolph County will continue to comply with all applicable federal and state statutes and regulations related to hazard mitigation planning. In addition, Randolph County will amend its plan whenever necessary to reflect changes in countywide hazard mitigation.

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 Section

201 of the Disaster Mitigation Act of 2000 requires that all state and local governments develop a Hazard Mitigation Plan as a condition of receiving federal disaster assistance.

Funding

Funding for this plan update was made available through the Hazard Mitigation Grant Program (HMGP). The grant's Period of Performance is November 18, 2013 through May 18, 2015. Randolph County entered into an agreement with Lee Helms Associates L.L.C. (LHA) to update the 2010 plan that was revised by the East Alabama Regional Planning and Development Commission (EARPDC) and expires on March 18, 2015.

Scope

The Randolph County Multi-Jurisdictional Hazard Mitigation Plan includes all incorporated and unincorporated areas in Randolph County. The plan addresses all natural hazards that may affect Randolph County and its residents. Hazard mitigation strategies are discussed in terms of goals, objectives and mitigation actions. Responsibility for implementation of strategies is discussed and possible funding sources are identified.

Purpose

The Randolph County Hazard Mitigation Plan was created to protect the health, safety and economic interests of residents by reducing the impacts of natural hazards through hazard mitigation planning, awareness and implementation. Hazard mitigation is any action taken to permanently eliminate or reduce the long-term risk to human life and property from natural and technological hazards. It is an essential element of emergency management along with preparedness, response and recovery. This plan serves as the foundation for hazard mitigation activities within the county. Implementation of the plan's recommendations will reduce injuries, loss of life, and destruction of property due to natural and technological hazards. The plan provides a path toward continuous, proactive reduction of vulnerability to the most frequent hazards that result in repetitive and often severe social, economic and physical damage. The ideal end-state is total integration of hazard mitigation activities, programs, capabilities and actions into normal, day-to-day governmental functions and management practices. How

successful this mitigation effort may be depends upon the dedication and interest displayed by governments, volunteer groups and political entities responsible for its implementation.

The purpose of the plan is to rationalize the process of identifying and implementing appropriate countywide hazard mitigation actions. The document includes a detailed characterization of natural hazards countywide; a risk assessment that describes potential losses to physical property, people, and operations; a set of goals, objectives, strategies and actions that will guide the county's mitigation activities, and a detailed plan for implementing and monitoring the required aspects of the plan.

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Figure 1-1: Randolph County Multi-Jurisdictional Hazard Mitigation Plan Amendment



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

FEMA

July 20, 2011

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

Reference: Acknowledgement of Receipt of Limited Amendment to the Randolph County
Multi-jurisdictional Hazard Mitigation Plan Update

Dear Ms. Peery:

We are pleased to have received as information, the Limited Amendment for the Randolph County Multi-jurisdictional Hazard Mitigation Plan Update, dated July 5, 2011. Although the Limited Amendment does not require FEMA review and approval, it confirms the community's commitment to implement the Federal requirements for notifying us of any minor or major changes made to the core hazard mitigation plan.

We continue to encourage each Community to conduct a plan update process within one (1) year of being included in a Presidential Disaster Declaration or of the adoption of major modifications to their local Comprehensive Land Use Plan or other plans that affect hazard mitigation or land use and development. When your Plan is updated, currently scheduled for March 19, 2015, it must be resubmitted through the State as a "plan update" and is subject to a formal review and approval by our office at that time.

If you or the Randolph County staff have any questions or need additional information, please do not hesitate to contact Jerry Gereaux, of the Hazard Mitigation Assistance Branch, at (770) 220-5372, or Linda L. Byers of my staff, at (770) 220-5498.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert E. Lowe", with a long horizontal flourish extending to the right.

Robert E. Lowe, Chief
Risk Analysis Branch
Mitigation Division

Randolph County Hazard Mitigation Plan Amendment

Whereas: The Disaster Mitigation Act of 2000 requires jurisdictions (states, counties, towns and special districts) to have a Hazard Mitigation Plan; and

Whereas: The Randolph County Hazard Mitigation Planning Committee recognizes the vulnerability of the County's resources, property and operation to the impacts of disasters and emergencies; and

NOW THEREFORE BE IT RESOLVED BY THE Randolph County Hazard Mitigation Planning Committee that the Randolph County Multi-Jurisdictional Hazard Mitigation Plan be amended to include:

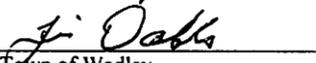
Name of City/Town	Project
Randolph County	Individual and Community Storm Shelters
Randolph County	Generators for Critical Infrastructure
City of Roanoke	Individual Storm Shelters
City of Roanoke	Generators for Critical Infrastructure
Town of Wadley	Individual Community Shelters
Town of Wadley	Generators for Critical Infrastructure
Town of Wedowee	Individual and Community Storm Shelters
Town of Wedowee	Generators for Critical Infrastructure

ADOPTED AND APPROVED this the 16th day of June, 2011.

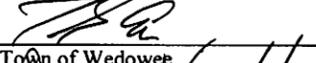
Randolph County Hazard Mitigation
Planning Committee:



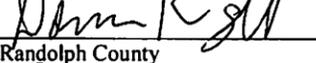
City of Roanoke



Town of Wadley



Town of Wedowee



Randolph County
Emergency Management



Randolph County Administrator

SECTION 2: THE PLANNING PROCESS

Plan Update Process

The HMPC determined that the definition of plan participation is still valid from the 2010 plan update. The jurisdictions that met this participation requirement are:

- Randolph County (continuing participant)
- Randolph County School District (continuing participant)
- Roanoke (continuing participant)
- Wadley (continuing participant)
- Wedowee (continuing participant)
- Woodland (participant)

As the 2015 process of updating the 2010 plan began, the Randolph County EMA (RCEMA) reappointed the Hazard Mitigation Planning Committee (HMPC) to participate in the process and reiterated the importance of the plan for the county. The Randolph County Commission delegated responsibility for overseeing the update of the plan to the RCEMA. The HMPC served as the core group responsible for all decisions about the planning process and content. The HMPC met two times and will meet once more following the FEMA status of an approvable plan pending adoption. The third and final meeting will be for jurisdictions to adopt the plan by resolution. An initial HMPC meeting was held on Tuesday, May 20, 2014 at 10 a.m. at the Randolph County EMA's Emergency Operations Center located at 751 Main Street South in Wedowee. This meeting was the first of two public meetings held during the planning process. An advertisement for the meeting was placed in *The Randolph Leader* and announcements were placed at the courthouse and in the Post Office. The Director of the Randolph County EMA mailed invitation letters to the following jurisdictional representatives:

County Commission- Richard Fetner

Randolph County Engineer- Burrell Jones

Randolph County Administrator- Larry Roberts

Randolph County Sheriff- David Cofield

Randolph County 911 Chairman- Lisa Reed

Randolph County School Superintendent- Rance Kirby

City of Roanoke Mayor-Mike Fisher

City of Roanoke Street Superintendent-Donnie Cash

City of Wedowee Mayor- Robert Taylor

Town of Wadley, Clerk Assistant- Nikki Houston

Town of Woodland, Town Clerk, Lisa Copeland.

The second HMPC meeting was held on Tuesday, October 14, 2014 at 6 p.m. at the Randolph County EMA's Emergency Operations Center located at 751 Main Street South in Wedowee. This meeting was held in conjunction with the Local Emergency Planning Committee (LEPC). The final HMPC is referenced above. At the final meeting, resolutions will be completed to adopt the plan by jurisdiction. Advertisements, agendas, sign in sheets and additional meeting informational documents are included in this section. Adoption Resolutions can be found in **Section 8**.

The Randolph County EMA led the update of all sections of the plan. Subject matter experts on the HMPC were solicited for specific information regarding hazards, risks, capabilities and strategies. HMPC members were also asked to review/discuss statuses of mitigation strategies from the 2010 plan for which they were responsible and asked to provide new actions that they may pursue in the future. All jurisdictions, planning committee members, regulatory agencies, the public, and neighboring communities actively participated by attending meetings and/or providing input by phone, fax, email, postal mail and one-on-one contacts made by the EMA Director or the consultant revising the plan. None of the surrounding communities attended any of the meetings; however during mutual aid meetings and through a mutual aid agreement, all expressed their willingness to help in the event of a disaster.

The hazard mitigation planning update process began in February of 2014 after the Randolph County Emergency Management Agency (RCEMA) was awarded a planning grant from the Alabama Emergency Management Agency (AEMA). The RCEMA received 75 percent

funding from the Federal Emergency Management Agency (FEMA). The remaining 25 percent was provided locally through in-kind services. The 2015 plan update reflects a revised structure from the 2010 plan; however, all required information remains a part of the plan.

The Randolph County Hazard Mitigation Planning Committee's members serve for the entire five-year planning cycle of the Natural Hazards Mitigation Plan. The HMPC mission statement remained the same and is as follows:

To develop and oversee a comprehensive natural hazard mitigation planning process that:

- Facilitates coordination among local, state, and federal agencies
- Monitors and evaluates the potential risks of hazards to life and property
- Actively mobilizes all available community resources and measures to mitigate the threats of hazards
- Implement programmed actions with specific results

Randolph County EMA Director, Donnie Knight, devised a list of requirements and guidelines during the 2010 plan update that must be adhered to by each committee member in order for them to remain a part of the multi-jurisdictional plan. These requirements and guidelines remain the same for the 2015 plan update. Each HMPC member stated they fully understood and would abide by, the guidelines set forth by the Randolph County EMA. The requirements/guidelines remain the same and are as follows:

- Attendance by them, or a representative, at each of the HMPC meetings
- If unable to attend a meeting, follow up by communicating with the Randolph County EMA or the consultant through personal visits, phone calls, correspondence, email or fax
- Timely submission of information necessary for the draft plan
- Full cooperation among the members of each municipality with the Randolph County EMA and the consultant

The Randolph County mitigation plan is the representation of the county's commitment to reduce risks from natural and man-made hazards. In doing this, the number, location, extent and probability of natural and manmade disasters occurring within the area was assessed. Previous 2009 plan information was provided to each jurisdiction/local government Hazard Mitigation Planning Committee members participating in the plan update. This information,

which included updating of each jurisdiction's data tables, critical facilities and mitigation strategies, were the basis for the plan. Next, actions that would reduce the loss of life or property in the area were considered. In doing this, all jurisdictions, local governments, private-non-profits, first responders (police, fire and medical), neighboring counties, and the general public were invited and encouraged to participate. All jurisdictions, planning committee members, and neighboring communities actively participated by attending meetings and providing input by phone, fax, email, postal mail and one-on-one contacts made by the EMA Director or the consultant revising the plan.

ten grants, but grants typically for one time purpose. Tanner has iters. He said, "It's an ve got to know where

ospital plans to reor- swing bed (therapy) t. They have changed py provider and will in on May 6. owee Hospital has ctor acting as a hos- or inpatients for sev- s. They now have an nt with a company, expand the hospi- rogram, which will the hospital's cur- pitalist, plus provide for him. ERx will : nurse practitioners sician's assistants. ncial services have o the old clinic build-

12-16 is National l Week, and there will : special treats for the ing that time. tients are down 29 because of more re- s on how sick you be. Outpatient is up nt. ell Robinson ad- the gathering on be- a new group, Hearts pital. Their goal is to : hospital, and their h will be educating munity and fundrais- noted that none of

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orney at Law onsolidation

nly \$50 down.

ptcy Consultation

.anett, AL

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placed in the clinic office. This was a structural problem that damaged the flooring.

Randolph Medical Center

The chairman said Chad Lee, the authority's attorney, said that nothing had changed with the former RMC employees' lawsuit, and the Roanoke tax money should be left in escrow and not yet distributed. RMC employees are asking for their unpaid vacation and sick days.

Alexander asked if employees of Wedowee Hospital could be allowed inside the closed Randolph Medical Center to see if there is anything in there, just sitting there, that they could use. Richardson said they would have to ask Roanoke's board.

The book of questions costs about \$200, Head said. They have so much budgeted for the team but they are currently in the red.

"It surprised me the level of support we got. I thought we would get half and the school would pay the rest- and we were fine with that. But, all the funds will be covered by the community," he said. Among those donating are some families of students. All donations are tax-deductible.

The Saturday format will be from 8 a.m. to noon, lunch from noon to 1 p.m., then 1 to 5 p.m. They could be eliminated at that point and have Sunday off. On Sunday the top competitors will battle it out.

to the nationals. This year the team went to the state championship for the first time since Head has been sponsoring it. They did very well against all the public schools. Each student has a speciality, which you can tell after a few practices. Some are really good in literature or music, one can tell you the history of any battle, the generals involved, etc. and one can tell you the most obscure geography. One or two are really good at math. They are a really good mix. Only four compete at a single time.

They will return Sunday night, probably about 11 or 11:30.

Carl Henderson, 57, of 821 Gilham Rd., Roanoke - simple assault (family) - April 27

Jeremiah Jerome Tucker, 35, of 874 West St., Roanoke - harassment - April 27

Terry Lyn Harmon 44, of 3404 County Rd. 14, Roanoke - possession of drug paraphernalia - April 26

Roy Daniel Moore, 26, of 825 Minnifield St., Roanoke - possession of amphetamine - April 25

Sherrita L. Moore, 24, of 829 Minnifield St., Roanoke - possession of methamphetamine - April 25

John Corbin Whaley, 29, of 1005 County Rd. 4, Wedowee - possession of methamphetamine (second offense) - April 25

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PUBLIC MEETING

The Randolph County Commission/Emergency Management Agency is scheduling a public meeting on May 20, 2014 at 10 a.m. to update its Hazard Mitigation Plan: The meeting will take place at the Randolph County EMA office. The public, private non-profits, municipalities, school boards, universities/colleges, water/sewer boards, fire departments and elected officials are among those invited and encouraged to attend. Participation is required in order to apply for federal hazard mitigation grants in the future.

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INITIAL MEETING AGENDA
2015 RANDOLPH COUNTY HAZARD MITIGATION PLAN UPDATE

Tuesday, May 20, 2014 @ 10 a.m.
EMA Office, 751 Main St. South, Wedowee

1. Introductions
 - Sign-in sheets – please print and make sure your email is on the form
2. Project Background
 - 2010 plan update was prepared by the East Alabama Regional Planning and Development Commission (EARPDC) under the direction of the Randolph County Emergency Management Agency and adopted by:
 - Randolph County
 - Roanoke – City
 - Wadley – Town
 - Wedowee – Town
 - Woodland – Town
 - 2015 plan update will be prepared by Lee Helms Associates, L. L. C. under the direction of the Hazard Mitigation Planning Committee, the Local Emergency Planning Committee, and the Randolph County Emergency Management Agency
3. Project Participation
 - Identify opportunities for public input into the 2015 plan update
 - Identify potential plan meeting participants that are not present today (municipalities, school boards, engineers, hospitals, surrounding county EMAs, fire departments, etc.)
 - PNP’s are their own applicant
4. Project Schedule
 - 2010 plan update expires March 18, 2015
 - Period of Performance for the grant is November 18, 2013 – May 18, 2015
 - Goal date for draft plan to be submitted in order to be approved before current plan expires: Monday, November 3, 2014
 - AEMA/Local Review = 30 days; Local response to a request for information (RFI) = 30 days; AEMA review of local response to RFI = 30 days; FEMA Review = 45 days (allowing 135 days at the least for plan approval)
 - There will be an initial, mid-term, and final meeting. Committee members will be made aware of the meetings via email unless other means is requested. Information may be sent to LHA by fax 205-280-0543 or email to renee@leehelmsllc.com. If you have any questions or need assistance, call LHA at 205-280-3027.
5. Project Tasks for this Meeting
 - All general public attendees are to complete the form titled: “Citizen Input on Hazard Mitigation Planning” and leave completed form with LHA representative
 - Local EMA Director is to complete Questionnaire #1 and return to LHA
 - Local EMA Director is to provide LHA with a copy of the media release for this meeting
 - Update 2010 plan information – see handouts
 - Discuss in-kind contributions for local match to this planning grant
 - Set date and location for next meeting

RANDOLPH COUNTY

Tuesday, May 20, 2014 at 10 a.m. – Randolph County EMA Office, 751 Main Street, South, Wedowee
INITIAL HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/ JOB TITLE	PHONE/ FAX	E-MAIL
Donnie Cash Donnie CASH	Agency: CITY of Roanoke Job Title: STREET DEPT SUPER	Phone: 334 863 7666 Fax: 334 863 2137	Donnie.cash@yaho.com donnie.cash@yahoo.com
David Cofield	Agency: Randolph Co. SO. Job Title: Sheriff	Phone: 256 357 4545 Fax: 256 357 2790	daude-1995@yahoo.com
Jan Prescott	Agency: Randolph County EMA Job Title: EMA Assistant	Phone: 256-357-0014 Fax:	rcemab@yahoo.com
BURRIS JONES	Agency: RANDOLPH Co. HWY Job Title: COUNTY ENGINEER	Phone: Fax:	
Adrian Melton	Agency: Roanoke P.D. Job Title: Chief of Police	Phone: 863-2099 Fax:	
Dann King	Agency: EMA Job Title: Director	Phone: Fax:	

Lee Helms

LHA
owner



LEE HELMS ASSOCIATES

205-280-3027

205-280-0543

lee@leehelmsllc.com

RANDOLPH COUNTY

Tuesday, May 20, 2014 at 10 a.m. – Randolph County EMA Office, 751 Main Street, South, Wedowee
INITIAL HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/ JOB TITLE	PHONE/ FAX	E-MAIL
Jimmy Holmes	Agency: SUSCC PD	Phone: 256-395-2211	jholmes@suscc.edu
	Job Title: Chief of Police	Fax: 256-395-2215	
Brad Davis	Agency: SUSCC	Phone: 256-395-2214	bdavis@suscc.edu
	Job Title:	Fax: 256-395-2215	
Rance Kirby	Agency: Randolph Co Schools	Phone: 256 610 1739	rkirby@randolph.k12.ga.us
	Job Title:	Fax:	
Richard FETTER	Agency: Commissioner Randolph	Phone: 334-338-1273	
	Job Title:	Fax:	
Lisa J. Reed	Agency: Randolph Co 911	Phone: 256-357-4894	randolphco911@aol.com
	Job Title: Director	Fax:	
Kelley Edwards	Agency: Randolph Co 911	Phone: "	"
	Job Title: Operations Manager	Fax:	



SECOND MEETING AGENDA

2015 RANDOLPH COUNTY HAZARD MITIGATION PLAN UPDATE

Tuesday, October 14, 2014 @ 6 p.m.
EMA Office, 751 Main St. South, Wedowee

1. Introductions

- Sign-in sheets – please print and make sure your email is on the form.

2. Project Schedule Reminder

- 2010 plan update expires March 18, 2015
- Period of Performance for the grant is November 18, 2013 – May 18, 2015
- Goal date for draft plan to be submitted in order to be approved before current plan expires:
Monday, November 3, 2014 Project Schedule
 - AEMA/Local Review = 30 days; Local response to a request for information (RFI) = 30 days; AEMA review of local response to RFI = 30 days; FEMA Review = 45 days (allowing 135 days at the least for plan approval)
- There will be an initial, mid-term, and final meeting. Committee members will be made aware of the meetings via email unless other means is requested. Information may be sent to LHA by fax 205-280-0543 or email to renee@leehelmsllc.com. If you have any questions or need assistance, call LHA at 205-280-3027.

3. Project Tasks for this Meeting

- All general public attendees are to complete the form titled: “Citizen Input on Hazard Mitigation Planning” and leave completed form with LHA representative
- Local EMA Director is to provide LHA with a copy of the media release for this meeting if applicable
- Update 2010 plan information – see handouts Discuss in-kind contributions for local match to this planning grant
- Set date and location for next meeting



**RANDOLPH COUNTY
EMERGENCY MANAGEMENT
AGENCY**

**P.O. BOX 228 WEDOWEE, ALABAMA 36278
[256]357-0014 1-800-357-4011 FAX 258-357-2365**

TO LEPC MEMBERS;

The Local Emergency Planning Committee (LEPC) board will meet on **Tuesday, Oct 14,**
at 6:00 PM at the EMA office 470 Main Street South, Wedowee, AL 36278.

Some agenda items,
Update on Hazard Mitigation Plan
Update on SIRENS

BE LOOKING FOR YOU.

THANKS


DONNIE KNIGHT
RANDOLPH COUNTY
EMA DIRECTOR

Page # 4

RANDOLPH COUNTY EMA

Donnie Knight Director

P.O. Box 228 Wedowee, AL 36278

Phone: 256-357-0014

Randolph County Local Emergency Planning Committee Meeting Tuesday, October 14, 2014

Agenda

Opening Remarks-----Donnie Knight

Introduce any visitors-----Donnie Knight

Minutes from last meeting (Mar. 10, 2014)---Jan Prescott

Discussion with Lee Helms Associates about Hazard Mitigation Plan update

Outdoor Warning Sirens Update-----Donnie Knight

Tier II Information-----Donnie Knight

HAM Radio Report-----Jim Vice

Comments, questions and other-----Any Member

Closing Remarks-----Donnie Knight

RANDOLPH COUNTY

Tuesday, October 14, 2014 at 6 p.m. - Randolph County EMA Office, 751 Main Street, South, Wedowee
MID-TERM HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/ JOB TITLE	PHONE/ FAX	E-MAIL
<i>Mike Fisher</i>	Agency: <i>Randolph</i> Job Title: <i>Mayor</i>	Phone: <i>334-863-4129</i> Fax: <i>863-2137</i>	<i>Mfisher@RandolphCo.EMA.org</i>
<i>Michelle Hester</i>	Agency: <i>Wadley</i> Job Title: <i>Clerk Assistant</i>	Phone: <i>256-395-2261</i> Fax: <i>256-395-4411</i>	<i>wadley.townhall@yahoo.com</i>
<i>Lisa Copeland</i>	Agency: <i>Woodland</i> Job Title: <i>Town Clerk</i>	Phone: <i>256-449-2222</i> Fax: <i>256-449-2662</i>	<i>townhall13@centurytel.net</i>
<i>Jan Prescott</i>	Agency: <i>Randolph County EMA</i> Job Title: <i>Secretary</i>	Phone: <i>256-357-0014</i> Fax: <i>256-357-0483</i>	<i>rcema6@yahoo.com</i>
<i>Burrell Jones</i>	Agency: <i>RANDOLPH Co. Comm.</i> Job Title: <i>COUNTY ENGINEER</i>	Phone: <i>256-357-2311</i> Fax:	<i>randolphcountycenturytel.net</i>
<i>David Cofield</i>	Agency: <i>Randolph Co. S.O.</i> Job Title: <i>Sheriff</i>	Phone: <i>256-357-4545</i> Fax: <i>256-357-2790</i>	<i>dav.d.c.1995@jaco.com</i>

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D. B. Helms, Jr.

2014-10-15 15:51



RANDOLPH COUNTY

Tuesday, October 14, 2014 at 6 p.m. - Randolph County EMA Office, 751 Main Street, South, Wedowee
MID-TERM HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/ JOB TITLE	PHONE/ FAX	E-MAIL
DALE W. KNIGHT	Agency: WADLEY VFD Job Title: CHIEF	Phone: 256-355-4100 Fax:	DALE.W.KNIGHT@WILLIAMS.COM
Dana Clark	Agency: EMA Job Title: EMA (3)	Phone: 256-610-3387 Fax:	COS.Clark1940@yahood.com
Donnie Knight	Agency: Randolph Co EMA Job Title: EMA Director	Phone: 256 357 0014 Fax: 256 357 0483	chiefknight2002@yahoo.com
	Agency: Job Title:	Phone: Fax:	
	Agency: Job Title:	Phone: Fax:	
	Agency: Job Title:	Phone: Fax:	

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D. B. Helms, Jr.



2014-10-15 15:52

RANDOLPH COUNTY

Tuesday, October 14, 2014 at 6 p.m. - Randolph County EMA Office, 751 Main Street, South, Wedowee
MID-TERM HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/ JOB TITLE	PHONE/ FAX	E-MAIL
RAY MANSFIELD	Agency: EMA Job Title: Volunteer	Phone: 256-343-1441 Fax:	rcem24@12hour.com
Robert Taylor	Agency: Wedowee Police Dept. Job Title: Officer	Phone: 256-610-1120 Fax:	cbr307@hotmail.com
James D Hardin	Agency: Job Title:	Phone: 256-610-7747 Fax:	midrah@gmail.com
DAVID HELMS	Agency: LHA Job Title:	Phone: 205-280-3027 Fax:	lee@leehelmsllc.com
	Agency: Job Title:	Phone: Fax:	
	Agency: Job Title:	Phone: Fax:	

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D. B. Helms, Jr.

2014-10-15 15:52



RANDOLPH COUNTY

Tuesday, October 14, 2014 at 6 p.m. - Randolph County EMA Office, 751 Main Street, South, Wedowee
MID-TERM HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/ JOB TITLE	PHONE/ FAX	E-MAIL
SHARONDA PETTAWAY	Agency: RANDOLPH CO. DHR Job Title: DIRECTOR	Phone: (256) 357-3000 Fax: (256) 357-2070	sharonda.pettaway@ dhr.alabama.gov
Troyce Sledge-Knight	Agency: Vol of East Job Title:	Phone: 256 357 4688 Fax:	randolph.5666@yahoo.com
Larry Roberts	Agency: Randolph County Commission Job Title: District Commissioner	Phone: 256 363-2443 Fax:	Roberts@randolphcounty.com Roberts@RandolphCountyAla.com
Jim Vier	Agency: WFLR- Job Title:	Phone: 256-357-2387 Fax: 334-863-2540	Jim@wflr.com
Donnie Strain	Agency: Randolph Co So Job Title: Investigator	Phone: 256 357-4545 Fax:	KE4DS@hotmail.com
Ann Lipham	Agency: Wedowee Hospital Job Title: Adm. Sec	Phone: 256-357-2111 Fax: 256 276-1583	a.lipham@Wedowee hospital.org

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D. B. Helms, Jr.

2014-10-15 15:52



A Citizen Input on Hazard Mitigation Planning Form was available at all HMPC meetings for use by HMPC members to provide to citizens and for citizens in attendance to complete as well. There were no submissions from citizens.

CITIZEN INPUT ON HAZARD MITIGATION PLANNING

Where in the county do you live (Which city or township?)	
What is your zip code at home?	
Do you work with Law Enforcement, Fire Service, Emergency Medical Services, Public Health, or Emergency Management? (Yes or No)	

Which of these emergency events have occurred at your home or in your neighborhood during the past ten years?

	EVENT	YES	NO
A	Brush or grass fire?		
B	Building fire?		
C	Severe thunderstorm?		
D	Tornado?		
E	Winter Weather?		
F	Terrorism?		
G	Drought?		
H	Hazardous material spill or release from pipelines, trucks, trains, or aircraft?		
I	Hazardous material spill or release from a facility?		
J	Power failure for more than two or three hours?		
K	Earthquake		

Did you have to leave your home because of any of these events?

If so, which ones? List by letter designation:

Did you lose time from work or school because of any of these events?

If so, which ones? List by letter designation:

Which of the following events are you concerned about in the next 12 months?

	EVENT	YES	NO
A	Brush or grass fire?		
B	Building fire?		
C	Severe thunderstorm?		
D	Tornado?		
E	Winter Weather?		
F	Terrorism?		
G	Drought?		
H	Hazardous material spill or release from pipelines, trucks, trains, or aircraft?		
I	Hazardous material spill or release from a facility?		
J	Power failure for more than two or three hours?		
K	Earthquake		

Of the concerns listed in question eight, please list the ones that you think are most likely to happen. List in priority by letter designation:

Of the concerns that you think are most likely to happen from question 9, which one do you think would affect most of the population of your County?

Of the concerns listed in question eight, please list the ones you think are least likely to happen. List by letter designation:

Do you own a NOAA weather radio? YES _ NO _

If yes, is it on right now? YES _ NO _

Are you familiar with the Emergency Alert System YES _ NO _

Do you have a device that can sound an alarm to alert you to emergencies? YES _ NO _

Can you receive emergency warning information on your pager, cell phone, or wireless messaging devices? YES _ NO _ If no, would you like to? YES _ NO _

Do you have a family emergency plan for events such as a home fire? YES _ NO _

Do you have a safe place for shelter in or around your home? YES _ NO _

Are there emergency plans at your place of employment? YES _ NO _

If you are willing to, please provide your name, address, and a telephone number so that the County Emergency Management or the community representative may contact you if further input is

needed:

Name	
Mailing Address	
Contact Number	
E-Mail	

Questions?

Continued Public Participation

After the initial plan was completed in 2005, it was made available for ongoing public view and comment at the Randolph County EMA. Additional opportunities for comment were provided at meetings (HMPC; LEPC; others) held by the Randolph County EMA each year. No meeting notes or sign-in sheets were created and saved for these past meetings; however, they will be a requirement and placed in the next plan revision.

In the future, the County EMA will strive to gain more public participation in the maintenance and updates of the county's hazard mitigation plan by encouraging Parent Teacher Organizations, Senior Citizens Clubs, Chamber of Commerce, Kiwanis Club, etc. by mail, telephone, and personal contacts. In addition, the County EMA will encourage the county and municipalities with websites to place the 2015 plan on their site and offer the public a place to comment on the plan. Jurisdictions having websites are: Randolph County - www.randolphcountyalabama.gov and Roanoke - www.roanokealabama.org. Jurisdictions not having websites are: Town of Wadley, Town of Wedowee, and Town of Woodland.

Interagency and Intergovernmental Coordination

Interagency and intergovernmental coordination also played a vital part in the update of this plan. Each of the agencies listed below were contacted via mail, email, fax, or telephone requesting the best available data that they could contribute to the 2015 plan update. All information provided was beneficial in completing risk and vulnerability assessments.

Federal Agencies

- National Weather Service provided storm event data
- United States Geological Survey provided information on general geology, earthquakes, sinkholes, land subsidence, and landslides
- U.S. Army Corp of Engineers and HAZUS-MH 2.1 provided information on dams
- Federal Emergency Management Agency provided information throughout the plan, including the National Flood Insurance Program information
- U.S. Department of Transportation's Hazardous Material Information System provided event data
- U.S. Census – provided population and demographic information
- U.S. Department of Agriculture – Census of Agriculture provided land value per acre
- HAZUS-MH 2.1 (2011) provided critical facility information, dam information, estimation information on potential damage, economic loss, and social impacts from natural disasters, etc.

State Agencies

- Alabama Emergency Management Agency provided hazard information throughout the plan
- Geological Survey of Alabama provided information on general geology, earthquakes, sinkholes, and landslides
- Alabama Department of Economic and Community Affairs provided the “Alabama Drought Management Plan,” National Flood Insurance Program information and FEMA flood map update information
- Forestry Commission provided information regarding wildfires

Regional Agencies

- East Alabama Regional Planning and Development Commission (EARPDC) provided area planning and development and transportation planning information, as well as maps pertaining to plan information
- Cleburne County EMA
- Clay County EMA
- Tallapoosa County EMA

- Chambers County EMA

Local Agencies

- Randolph County Emergency Management Agency provided assistance in gathering data

Academia

- University of Alabama - Department of Geology

Miscellaneous

- Easidemographics.com – provided population and demographic information
- USA.com – provided population and demographic information

Integration with Existing Plans

Careful attention was taken when updating the plan so that it would not contradict or conflict with any existing local subdivision regulations, zoning ordinances, comprehensive plans, or standard building codes. Integration with existing plans of the local EMA and regional planning commission was taken. **Table 2-1** provides a list of the existing plans by jurisdiction.

Wherever appropriate, the East Alabama Regional Planning and Development Commission's (EARPDC) economic development planning efforts have been integrated into this plan revision. Of possible interest to those viewing this plan, the EARPDC provides Randolph County with a Comprehensive Economic Development Strategy that can be found on the EARPDC's website at www.earpdc.org.

Plan Adoption

All jurisdictions in Randolph County actively participated in the planning process. Representatives from each local government attended each of the meetings and provided information vital to the update of this plan. Upon completion of the plan each of the four municipalities (Roanoke, Wadley, Wedowee, and Woodland) along with the Randolph County Commission passed a formal resolution adopting the plan. By adopting this multi-jurisdictional hazard mitigation plan the listed participants will be eligible applicants for mitigation grant funds through the Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, and Flood Mitigation Assistance Program. Adopting Resolutions can be found in **Section 8**.

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**Table 2-1: Randolph County
Existing Plans by Jurisdiction**

PLAN/ POLICY	Roanoke	Wadley	Wedowee	Woodland	Unincorporated County
Comprehensive Plan	X	X	X	X	X
Subdivision Regulations					
Growth Management Plan	X	X	X	X	X
Capital Improvement Plan	X	X	X	X	X
Zoning Ordinance					
Building Code					
Transportation Plan	X	X	X	X	X
Emergency Management Plan	X	X	X	X	X
Critical Facilities Map	X	X	X	X	X
Existing Land Use Map	X	X	X	X	X
State Plan	X	X	X	X	X
Hazard Mitigation	X	X	X	X	X
Strategic National Stockpile Plan	X	X	X	X	X
<i>Other</i>					
<i>Source: Participating Jurisdictions</i>					

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SECTION 3: GENERAL CHARACTERISTICS

History (This section has not changed from the previous plan.)

The area now known as Randolph County Alabama was once Creek Indian Territory. In 1802 this land was ceded by the State of Georgia and became part of the Mississippi Territory. Once Mississippi became a state, congress created the Alabama Territory in 1817. Two years later, on December 14, 1819 Alabama became the 22nd state.

The Alabama General Assembly established Randolph County on December 18, 1832. The county seat was established in Wedowee in 1835. The County was named after a popular U. S. Senator from Virginia, John Randolph. The boundaries of the County have not changed since its inception. One of the oldest towns in America exists today in Randolph County. Originally established in the 1700's, the Town of Louiana changed its name in 1903 to Wadley.

Pioneers by the thousands left Tennessee, Georgia, the Carolinas, and Virginia seeking fertile land for growing cotton. After gold was discovered in Georgia prospectors began working in Alabama and had a "Gold Rush" following the discovery of gold in 1830 in Chilton County along tributaries of Blue and Chestnut Creeks. More discoveries were made and for a decade there were thousands of miners working. Then the California gold rush took the miners to the mother lode and the mines were abandoned during the Civil War. After the Civil War, work took place until World War II. In the 1930's, with the rise in the price of gold, there was another boom, which lasted until 1942. Since then Alabama's gold fields have been almost completely idle. From 1830 to 1990 Alabama produced nearly 80,000 ounces of gold. The most important deposits were found in Cleburne, Tallapoosa, Clay and Randolph Counties. Only Cleburne and Tallapoosa Counties produced more than 20,000 ounces of gold. Gold found in Alabama comes from lode and placer sources.

The gold bearing deposits of Randolph County border along the boundary of Cleburne County and are in similar formations to that county. Area streams and branches near Wedowee are most productive. The Pinetucky Gold Mine discovered in 1845 and extensively worked consisted of quartz veins in garnet bearing mica schist and was the site of a 20 stamp mill. The mine was among earliest discoveries of lode veins in Alabama and termed a "rich specimen mine".

In Wedowee, the area creek sands and gravels along the Tallapoosa River have good gold placers. A mine on Wedowee Creek is said to contain lode gold, but nearby stream gravels have placer gold.

The youngest town in Randolph County is Woodland. The town incorporated in 1967. Originally incorporated to attract industry to the town, Woodland has remained a rural community with little expansion over the past 30 years. The 2000 Census lists the population of Woodland at 192. The area of the town is approximately 1.13 square miles.

As mentioned before, the Town of Wadley was incorporated in 1903. In 1908 what is now the CSX Railway was built along the Little Tallapoosa River in the southwestern part of Randolph County. There had been a prior settlement across the river called Louina, which dated from the 1830's. The population of this settlement declined because it was bypassed by the railroad and many of its residents moved to the new Town of Wadley. By 1910 there were 426 residents. It was around this time that Mr. Carson Calloway built several commercial buildings and started a bank, with the ultimate purpose of building a cotton mill at Wadley. Subsequently, Mr. Callaway transferred his operations to LaGrange, Georgia and the mill was never built. Among the commercial building built was a hotel and for a number of years this hotel did a thriving business mainly from "drummers" who used it as headquarters for working the area when rail was the principal means of transportation. Another Wadley institution, Southern Union College, opened in 1923. It was a church related school and operated under the names of Bethlehem College, Piedmont Junior College and Southern Union College. It became a state school in 1964.

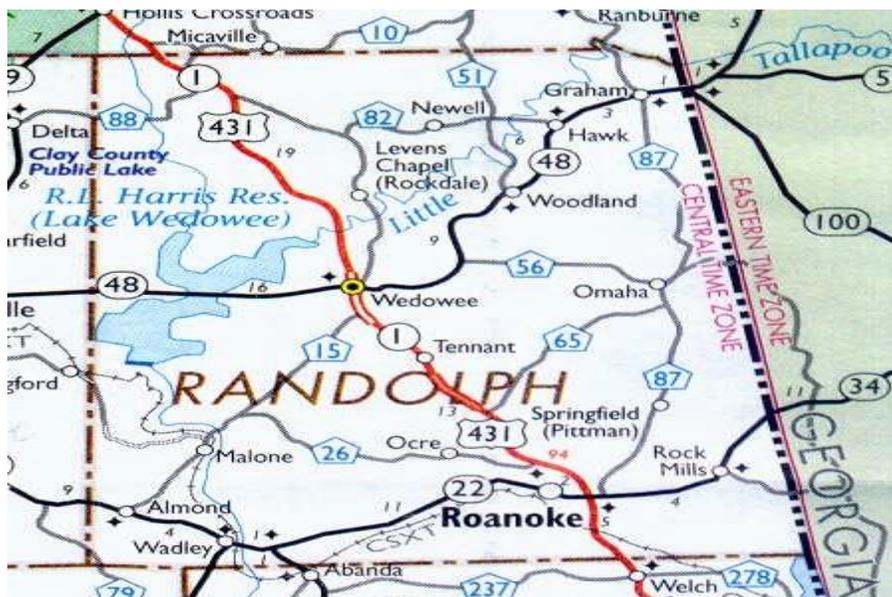
The Town of Roanoke is the largest community in Randolph County. Roanoke was incorporated by the legislature on December 13, 1900. It was settled in the early 1830's and named "High Pine" because of its altitude and pine forests surrounding the area. In 1840 it was named "Chulafinee" and two years later acquired the name "Roanoke" for the home of John Randolph, in honor of John Randolph's Virginia plantation.

After the Gold Rush of the 1830's agriculture became the areas economic backbone. The Central Georgia Railroad came to Roanoke in 1887, beginning a new growth period during which many of the downtown brick stores were built. A group of visionary business people began a cotton mill, W. A. Handley Manufacturing, and for years, Roanoke had a cotton-centered economy. Roanoke is also the "Home of the Ella Smith Doll." Often referred to as the Alabama

Indestructible Baby, the Ella Smith Doll dates back over one hundred years. In 1897, Mrs. Ella Smith repaired a neighbor child's porcelain doll by pouring a mixture of plaster and fiber inside the damaged head to give it strength and durability. From this simple and innovative beginning came the idea for one of the most distinctive dolls ever to grace a nursery. Mrs. Smith experimented with plaster and various fabrics refining her design as she worked. At the height of the little doll's popularity, Mrs. Smith's small factory, with only eight to twelve employees, produced 8,000 dolls a year. She advertised through mail order and displayed the dolls at shows and expositions. While attempting to expand her business, Mrs. Smith met with a series of unfortunate incidents, including the loss of many orders in a train wreck, forcing her to move her factory back into her home. When she died in 1932, her company died with her. Originals of her whimsical little dolls are now extremely hard to find.

The Town of Wedowee is the county seat and is located in the center of the county. It was named for an Indian chief, "Wah-wah-nee" or "Wah-dow-wee", whose village stood near the present site of the town. The first settler in the town was Hedgeman Triplett, who operated a ferry on the Tallapoosa River several miles west of town. In 1840 the name of the town was changed to McDonald. Four years later the name was changed back to Wedowee.

The County is located on the east central portion of Alabama. Randolph County is bordered on the east by the State of Georgia, to the north by Cleburne County, the west by Clay County and to the south Tallapoosa and Chambers Counties.



Water Supply (This section has not changed from previous plan.)

The wells and springs in the county provide an abundant supply of water for farm and home use. The wells are about 30 to 70 feet deep and supply water throughout the year. Rivers and lakes furnish water all year, even in the driest seasons, for cities, industries and livestock. Approximately 200 ponds furnish water for agricultural use and for recreation. The High Pine Creek Watershed Project, which includes nine flood control structures that total 265 acres, provides water to municipalities and for recreational purposes.

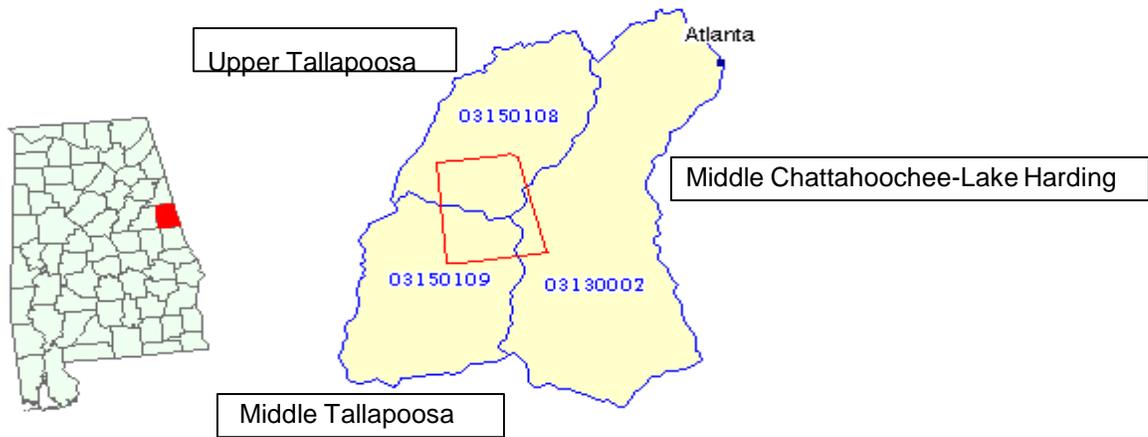
There are five water supply systems located in Randolph County. Combined they have a treatment and supply capacity of 3,104,633 gallons per day. The combined storage capacity of these systems is 6,290,000 gallons. The four incorporated towns each have a water supply system. Some areas of the county are served with public water.

Drainage (This section has not changed from previous plan.)

Most of the county is strongly dissected by drainage-ways. The sloping areas are along the broad ridges between the interstream divides. The western half of the county along the Tallapoosa River is steep and has narrow sloping ridge tops. The floodplains are narrow and nearly level.

About 85% of the county drains into the Tallapoosa and Little Tallapoosa Rivers. The rest of the county drains into Wehadkee Creek and then into the Chattahoochee River in Troup County, Georgia. The divide between the two watersheds is 700 to 1,200 feet above sea level. The lowest elevation is in the southern part of the county, and the highest elevation is in the northern part.

FIGURE 3-1: Randolph County's Position Across Watersheds



The preceding figures represent Randolph County's position across the three watersheds that provide drainage for the county.

Socially Vulnerable Populations

Population Density for Randolph County, Alabama

Certain populations are generally more affected by hazard events. These populations can be defined in terms of social, racial, and economic characteristics. **Table 3-1** shows the county's population characteristics by jurisdiction. The City of Roanoke is the most populated jurisdiction, followed by the Towns of Wedowee, Wadley, and Woodland. In terms of vulnerability, the larger the population of an area the more people and structures that could possibly be damaged or destroyed. Randolph County's population has increased 2.38% since 2000. The county's population density is 39.23 people per square mile, while Roanoke's population density is 158.8 per square mile, Wadley's population density is 27.5 per square mile, Wedowee's population density is 27.8 per square mile, and Woodland's population density is 37.7 per square mile. Roanoke has the highest population density, followed by Woodland, Wedowee, and Wadley.

Minority populations are generally considered to be more vulnerable to hazard events. These populations may not have the resources necessary to recover as quickly or completely from disasters. Minorities generally have higher percentages of inadequate medical insurance, inadequate home insurance, and homes that may be deemed as substandard housing.

Populations over sixty-five years of age and those under eighteen years of age are more vulnerable than other population groups. These groups are at higher risk for injury and medical complications that may occur during or as a result of a disaster. These special needs populations may require more attention during evacuation and may require special shelters.

Table 3-1: Randolph County Population Characteristics

Geographic Area	Population	Race-White	Race-Black	Race-Other	Age 17 & under	Age 18–64 years	Age 65 and over
Randolph County	22,913	17,532	4,607	774	5,473	13,552	3,888
Roanoke	6,074	3,659	2,293	122	1,603	3,454	1,017
Wadley	751	489	226	36	155	493	103
Wedowee	823	585	223	15	157	509	157
Woodland	184	161	19	4	45	107	32

(Source: 2010 Census; www.easidemographics.com)

Given the importance of population shifts over time, successful mitigation planning requires a look at future trends to assess future vulnerability. Population projections show that Randolph County is expected to increase in size by approximately 2.7 percent by the year 2040. Census 2010 recorded a population of over 22 thousand residents in Randolph County. Overall, the county has experienced moderate growth. The total population increased 2% for the 2000 - 2010 time period and is projected to increase 2.7% for the 2010 – 2040 time period as presented in **Table 3-2**. Randolph County is ranked number 46 in population among the 67 Alabama Counties as shown in the **Table 3-3**.

Table 3-2: Randolph County’s Population Growth

County	Census 2000	Census 2010	Projections						Change 2010-2040	
			2015	2020	2025	2030	2035	2040	Number	Percent
Randolph	22,380	22,913	23,185	23,405	23,555	23,611	23,592	23,524	611	2.7%

(Source: U. S. Census Bureau and Center for Business and Economic Research, The University of Alabama, Fall 2012/Alabama State Plan)

Table 3-3: Geographical Rank of Randolph County

Population Rank	Geographic Area	Population	Housing Units	Area in Square Miles			Density per Square Mile of Land Area	
				Total Area	Water Area	Land Area	Population	Housing Units
46	Randolph County	22,913	11,982	584.14	3.59	580.55	39.46	21

(Source: U. S. Census Bureau 2010)

In addition to the racial and age composition within the county, income levels are important when identifying vulnerable populations. Lower income individuals may not have the resources to prepare for or recover from disasters. **Table 3-4** shows the median household income, per capita income, and poverty level data for the jurisdictions and census tracts in Randolph County.

The median household income for the State of Alabama is \$43,160. The median household income for the United States is \$53,046. Randolph County has a median household income of \$38,292, higher than the state average but less than the national average. Only one of the municipalities (Woodland) has a median household income that exceeds the state average, but is less than the national average. All other municipalities do not have a median household income that equals or exceeds either the state or national average. *(Source: 2010 Census)*

Per capita income is the average obtained by dividing aggregate income by the total population of an area. The per capita income for the State of Alabama is \$23,587. The per capita income for the United States is \$28,051. Randolph County’s per capita income is \$20,995, less than the state and national averages. No municipality has a per capita income that equals or exceeds either the state or national averages. *(Source: 2010 Census)*

The percent of persons below the poverty level in the State of Alabama is 18.1%. The corresponding rate for the United States is 14.9%. The percent of persons below the poverty level in Randolph County is 23.11% and is higher than the poverty levels in the State of Alabama and the United States. The Town of Woodland has a rate that is below the state and national rates. The City of Roanoke has the highest poverty rate in the county at 32.4%.*(Source: 2010 Census)*

Table 3-4: Randolph County Income Data

Geographic Area	Median Household Income (2008-2012)	Per Capita Income (2008-2012)	Persons Below Poverty Level (2008-2012)	Percent Below Poverty Level
Randolph County	\$38,292	\$20,995	5,145	23.11%
Roanoke	\$31,215	\$21,989	1,968	32.4%
Wadley	\$32,407	\$16,075	228	30%
Wedowee	\$33,178	\$21,565	331	29.87%
Woodland	\$47,000	\$22,563	29	11.51%

(Sources: 2010 Census; www.usa.com)

Housing is an important consideration of mitigation planning. The concentration and the type of housing are two primary factors. In Randolph County there are a total of 11,982 housing units. **Table 3-5** shows the housing characteristics of the county by jurisdiction. The City of Roanoke has the highest number of mobile home units within a municipality; while, Wedowee has the highest percent of mobile homes within a municipality. Mobile home units are historically very vulnerable to a variety of hazards and prone to high amounts of damage and complete destruction.

Table 3-5: Randolph County Housing Characteristics

Geographic Area	Total Housing Units	Mobile Home Units	Mobile Home %
Randolph County	11,982	2,936	24%
Roanoke	2,418	401	16%
Wadley	307	62	20%
Wedowee	582	139	23%
Woodland	74	17	22%

(Sources: 2010 Census; www.easidemographics.com)

Table 3-6 shows the building stock in Randolph County by general occupancy. The data provides the number of buildings by use and is shown by census tract. According to this data, provided by *HAZUS-MH 2.1* software, Tract 300 has the highest number of structures in the county. Complementing this information is **Table 3-7** that provides the replacement values for these buildings and **Table 3-8** that provides the content replacement values for content located inside these buildings. Each table is shown by Census Tract. Tract 500 has the highest total value for structures in the county.

Table 3-6: Randolph County Building Stock by General Occupancy								
Tract	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Building Count
100	1,387	49	20	14	5	1	0	1,476
200	1,494	46	24	13	14	5	2	1,598
300	2,807	83	26	7	10	12	5	2,950
400	2,047	94	27	6	25	25	2	2,226
500	2,564	114	30	3	17	17	4	2,749
600	1,025	33	18	5	2	3	2	1,088
TOTAL	11,324	419	145	48	73	63	15	12,087

(Source: HAZUS-MH 2.1)

Table 3-7: Randolph County Building Exposure								
<i>(Numbers shown in thousands of dollars)</i>								
Tract	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Total Exposure
100	0	19,490	4,852	1,422	4,478	971	0	31,213
200	1,402	12,113	9,318	929	7,656	2,475	1,402	35,295
300	3,431	29,397	5,138	1,163	5,529	8,031	3,431	56,120
400	1,821	54,620	9,298	488	11,080	1,936	1,821	81,064
500	97,583	37,934	14,496	286	10,478	3,662	3,884	168,323
600	72,325	10,641	17,951	605	1,467	2,628	5,644	111,261
Total	176,562	164,195	61,053	4,893	40,688	19,703	16,182	483,276

(Source: HAZUS-MH 2.1)

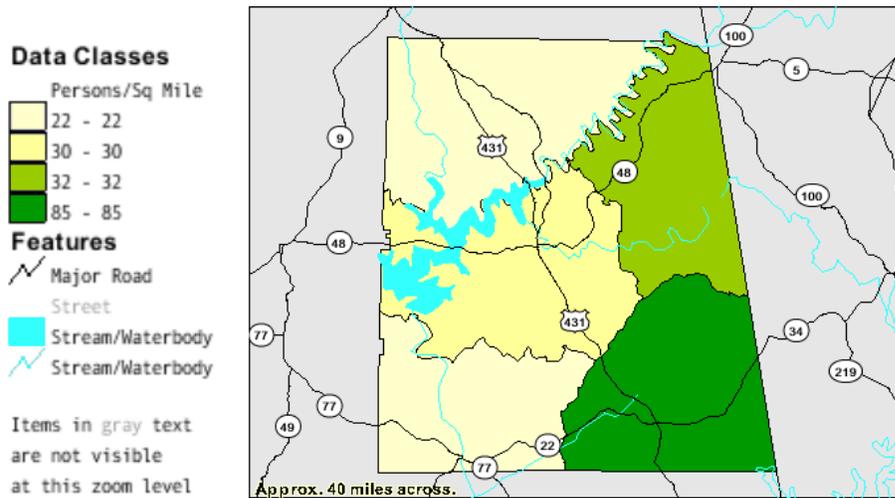
Table 3-8: Randolph County Building Contents Exposure
(Numbers shown in thousands of dollars)

Tract	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Total Exposure
100	48,896	19,490	6,440	1,422	4,478	1,286	0	82,012
200	62,393	12,954	13,313	929	7,656	3,466	1,402	102,113
300	81,187	31,616	6,741	1,163	5,529	10,001	3,431	139,668
400	106,123	63,072	12,445	488	11,080	2,724	1,821	197,753
500	112,393	38,658	20,972	286	10,478	4,319	3,884	190,990
600	36,358	10,841	26,514	605	1,467	3,757	7,948	87,490
Total	447,350	176,631	86,425	4,893	40,688	25,553	18,486	800,026

(Source: HAZUS-MH 2.1)

The following figure shows population density in the county:

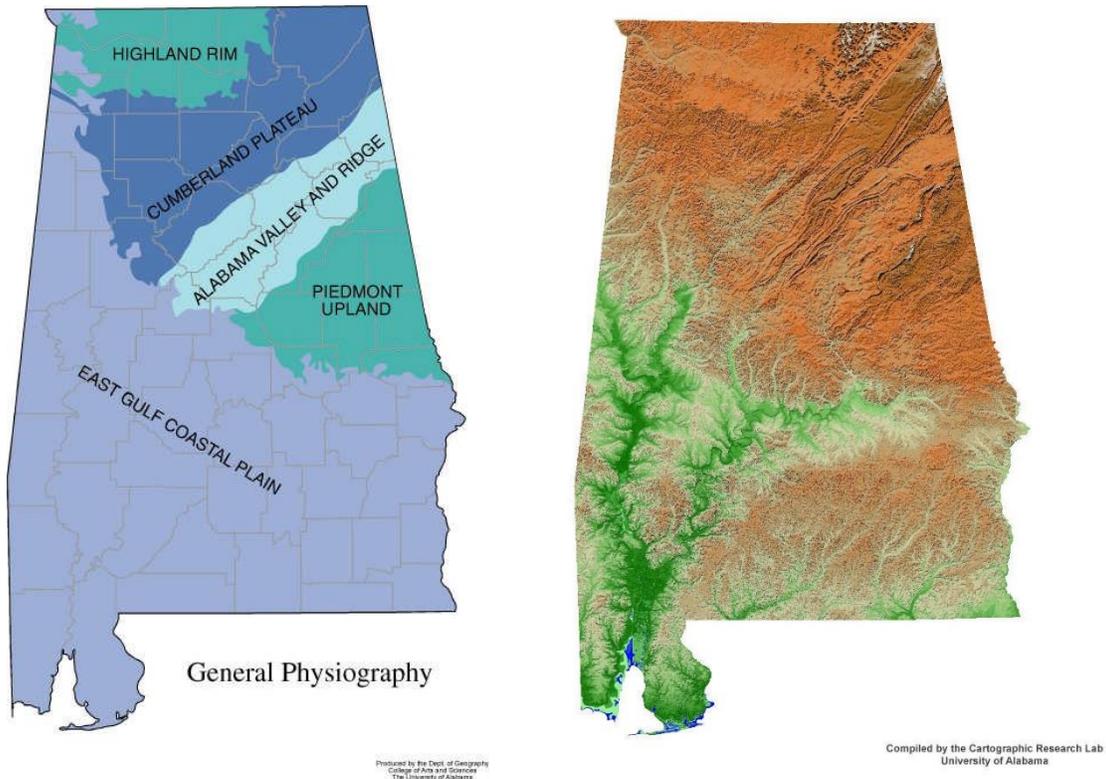
FIGURE 3-2: RANDOLPH COUNTY POPULATION DENSITY



General Geology (Information remains the same as in the previous plan update.)

Randolph County lies in the Piedmont Upland District at the foothills of the Appalachian Mountains. This area is characterized by rolling topography with altitudes ranging from 700 to approximately 1500 feet above sea level. Streams occupy broad, shallow valleys separated by broad, rounded divides and have dendritic drainage patterns. Alternating beds of hard and soft Paleozoic sedimentary rocks, folded like the wrinkles in a kicked floor rug, are the hallmark of the Appalachian Valley and Ridge Province. Extending some 900 miles (1500 km) from New York to Alabama, and flanked by flat-lying sedimentary strata to the west and Precambrian metamorphic rocks to the east, this famous belt of parallel structures reflects the several great continental collisions that formed the Appalachian Chain and the Pangaea Supercontinent some 300 to 400 million years ago. Coal, iron ore, limestone, and marble are found in this area of Alabama.

FIGURE 3-3: GEOLOGY CHARACTERISTICS



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SECTION 4: RISK AND VULNERABILITY ASSESSMENT

Risk Assessment

The risk assessment process is necessary to identify those natural hazards that pose a threat to Randolph County and its municipal jurisdictions. This process used information provided by members of the Randolph County Hazard Mitigation Planning Committee to identify these hazards.

Table 4-1 summarizes the county's Hazard Probability Assessment. A zero denotes no data is available to determine the probability or affected area. Each jurisdiction has an individual hazard probability assessment shown in **Section 6** of the plan.

Table 4-2 shows the hazards that pose a threat to each jurisdiction. Each jurisdiction was responsible for identifying the hazards that pose a threat to their community.

Table 4-3 provides the prioritized occurrence threat by jurisdiction based on past events. Occurrence prioritizations were based on the National Oceanic and Atmospheric Administration (NOAA)-National Climatic Data Center (NCDC) reports of occurrences. Hazards are prioritized highest to least threat designating the hazard with the highest threat of occurrence as number one.

Table 4-4 through Table 4-15 is the cornerstone for the hazard profiles that follow in this section. This table contains data from the NOAA NCDC for a defined ten-year study period of January 1, 2003 – December 31, 2013. The table shows events for all hazard types and provides the location, date, type, magnitude, deaths and injuries, dollar amounts for property and crop damages, and total damages.

As FEMA guidelines request that detailed event data be provided, the Hazard Mitigation Committee agreed upon the new ten-year study period as a means of establishing a corrected historical reference that utilized verifiable sources.

Event locations in the table labeled as “countywide” refer to an event that affected the entire county, including all municipalities within. If there is an associated amount of damages, they are assumed to be countywide. Countywide events are also listed in each municipality's event table in the individual Jurisdiction Assessment located in **Section 6**. There are events labeled for specific unincorporated areas of the county that were identified as affected. Such events will not be repeated in the individual jurisdiction tables since the location was site

specific and did not affect an incorporated jurisdiction.

Some events provided by the NOAA/NCDC are reported as statewide occurrences. Hurricanes, droughts, and winter storms often have this type of far-reaching impact. In cases such as this, the event is shown as a countywide event that affected all municipalities. The county's extent and probability of a hazard will be listed under each event description.

The extent of the hazard provides the range of magnitude or strength that could be experienced by the county if such an event occurred. The hazard is classified using terms of major, minor, and minimum based on the probability of future damage estimates providing information on the range of magnitude or strength the county can anticipate from potential hazardous events. A major ranking requires continuous action and participation from the entire community and has a 100% or greater chance of an annual occurrence. A minor ranking involves fewer people, effort, and area of community and has a 50% - 99% chance of an annual occurrence. A minimum ranking involves a small number of people and plans for a specific action and has a 49% or less chance of an annual occurrence. In addition to extent rankings and whenever possible, the worst case scenarios of hazard events are provided as documentation of the extent the particular hazard has on Randolph County.

Probability is the likelihood that events of particular severities will occur. The ability of scientists and engineers to calculate probability varies considerably depending on the hazard in question. In many areas, flood studies of various kinds can provide reasonably accurate estimates of how often water will reach particular places and elevations. On the other hand, tornadoes and earthquakes are nearly impossible to predict, except in the most general sense. The probability (frequency) of the various hazards is drawn from a combination of sources, expertise, and the NCDC Storm Event Database for Alabama.

For the 2015 plan update, the probability (%) that an identified hazard will occur on an annual basis was determined using the following formula:

Number of historical or reported events in a time period divided by the number of years the incidents occurred within = Probability of Future Annual Event Occurrences

Example: 13 Extreme Temperature events experienced divided by a 6 year period; 13 divided 6 = >100%

A similar formula was used to determine an estimate of the expected damages from

each event:

Total amount of damages (in dollars) for each historical or reported event divided by the number of damage causing events within the time period = Estimate of expected future damages

Example: \$172,000 total reported hail damage from 2003-2013 with 21 of those being reported as damage causing; $\$172,000/21=\$8,190$

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**Table 4-1: Randolph County
Hazard Probability of Future Occurrence**

Natural Hazards	Number of Occurrences Between 2003-2013	Probability of Future Occurrence	Area Affected
Thunderstorm	59	>100%	Countywide
Lightning	7	70%	Countywide
Hail	45	>100%	Countywide
Tornado	6	60%	Countywide
Flood/Flash Flood	15	>100%	Countywide
Droughts/Extreme Heat	52	>100%	Countywide
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	11	>100%	Countywide
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	10	100%	Countywide
Sinkhole/Expansive Soil	1	0%	Countywide
Earthquake	0	0%	Countywide
Wildfire (3 year study period – 2010-2013)	96	>100%	Countywide
Dam/Levee Failure	0	0%	

Sources: NOAA NCDC Storm Events Database; Alabama Forestry Commission; Alabama Geological Survey

Methodology: Probability of Future Occurrences was expressed by dividing the total number of occurrences by the ten-year study period, with the exception of wildfire being a 3-year study period. Zero denotes no data available to determine the probability of future occurrence or areas affected.

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**Table 4-2: Randolph County
Hazard Identification by Jurisdiction**

Natural Hazards	Roanoke	Wadley	Wedowee	Woodland	Randolph County
Thunderstorm	X	X	X	X	X
Lightning	X	X	X	X	X
Hail	X	X	X	X	X
Tornado	X	X	X	X	X
Flood/Flash Flood	X	X	X	X	X
Drought/Extreme Heat	X	X	X	X	X
Winter Storm/Frost Freeze/Heavy Snow/ Ice Storm/Winter Weather/ Extreme Cold	X	X	X	X	X
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	X	X	X	X	X
Sinkhole/Expansive Soil	X	X	X	X	X
Earthquake	X	X	X	X	X
Wildfire	X	X	X	X	X
Dam/Levee Failure	X	X	X	X	X

Source: Participating Jurisdictions

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**Table 4-3: Randolph County
Prioritized Occurrence Threat by Jurisdiction Based on Past Events**

Natural Hazards	Roanoke	Wadley	Wedowee	Woodland	Randolph County
Thunderstorm	3	5	4	7	2
Lightning	8	8	8	8	8
Hail	4	6	7	6	4
Tornado	8	7	9	9	9
Flood/Flash Flood	6	5	6	5	5
Drought/Extreme Heat	2	2	2	2	3
Winter Storm/Frost Freeze/ Heavy Snow/ Ice Storm/ Winter Weather/Extreme Cold	5	3	3	3	6
Hurricane/Tropical Storm/ Tropical Depression/High Wind/Strong Wind	6	4	5	4	7
Sinkhole/Expansive Soil	7	9	10	9	10
Earthquake	8	9	10	9	11
Wildfire	1	1	1	1	1
Dam/Levee Failure	8	9	10	9	11

Sources: NOAA NCDC Storm Events Database; Alabama Forestry Commission; National Forestry Service; Alabama Geological Survey

Hazards are prioritized with the highest threat of occurrence assigned number one based on hazardous events that have occurred within each jurisdiction over the past ten years, with the exception of wildfires that were based on events that have occurred over the past three years. Some natural hazards have equal threats to a jurisdiction; therefore, their threat number will be the same.

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2003-2013 RANDOLPH COUNTY HAZARD EVENT OCCURRENCES

Table 4-4: Thunderstorm Events

59 Thunderstorm Events – 01/01/2003 thru 12/31/2013 (4018 days)
(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
WEDOWEE	RANDOLPH CO.	AL	05/02/2003	17:50	CST	Thunderstorm Wind	70 kts. EG	0	0	800.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	05/06/2003	14:38	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/07/2003	18:05	CST	Thunderstorm Wind	55 kts. EG	0	0	37.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/12/2003	15:17	CST	Thunderstorm Wind	60 kts. EG	0	0	10.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	11/23/2004	13:38	CST	Thunderstorm Wind	60 kts. EG	0	0	75.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	04/22/2005	10:02	CST	Thunderstorm Wind	52 kts. EG	0	0	125.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	04/22/2005	11:20	CST	Thunderstorm Wind	52 kts. EG	0	0	3.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	04/30/2005	05:09	CST	Thunderstorm Wind	52 kts. EG	0	0	3.00K	0.00K
CORINTH	RANDOLPH CO.	AL	06/06/2005	14:15	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	06/20/2006	16:35	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	06/23/2006	17:10	CST	Thunderstorm Wind	55 kts. EG	0	0	20.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	07/19/2006	10:55	CST	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	07/19/2006	11:40	CST	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K

WEDOWEE	RANDOLPH CO.	AL	08/15/2006	15:15	CST	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	08/15/2006	15:28	CST	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	10/19/2006	17:45	CST-6	Thunderstorm Wind	65 kts. EG	0	0	50.00K	0.00K
ROCK MILLS	RANDOLPH CO.	AL	10/19/2006	17:50	CST-6	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/28/2007	13:38	CST-6	Thunderstorm Wind	39 kts. EG	0	0	2.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	02/26/2008	04:40	CST-6	Thunderstorm Wind	70 kts. EG	0	0	75.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	05/20/2008	19:13	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
SEWELL	RANDOLPH CO.	AL	05/20/2008	19:30	CST-6	Thunderstorm Wind	40 kts. EG	0	0	1.00K	0.00K
LEVEL ROAD	RANDOLPH CO.	AL	06/29/2008	17:12	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
WADLEY	RANDOLPH CO.	AL	06/29/2008	17:30	CST-6	Thunderstorm Wind	40 kts. EG	0	0	1.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/29/2008	17:30	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
WEHADKEE	RANDOLPH CO.	AL	07/12/2008	14:05	CST-6	Thunderstorm Wind	50 kts. EG	0	0	20.00K	0.00K
DINGLER	RANDOLPH CO.	AL	07/22/2008	12:40	CST-6	Thunderstorm Wind	70 kts. EG	0	0	300.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	07/22/2008	12:55	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
ROANOKE MUNI ARPT	RANDOLPH CO.	AL	07/22/2008	12:55	CST-6	Thunderstorm Wind	50 kts. EG	0	1	5.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/03/2009	15:30	CST-6	Thunderstorm Wind	50 kts. EG	0	0	30.00K	0.00K

PINE TUCKEY	RANDOLPH CO.	AL	06/12/2009	20:35	CST-6	Thunderstorm Wind	40 kts. EG	0	0	1.00K	0.00K
HAYWOOD	RANDOLPH CO.	AL	06/12/2009	20:42	CST-6	Thunderstorm Wind	43 kts. EG	0	0	1.00K	0.00K
MALONE	RANDOLPH CO.	AL	06/14/2009	12:18	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	06/28/2009	14:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
CORNHOUSE	RANDOLPH CO.	AL	10/12/2009	06:59	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/09/2009	02:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
ROCK MILLS	RANDOLPH CO.	AL	12/09/2009	02:20	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
ROANOKE MUNI ARPT	RANDOLPH CO.	AL	01/21/2010	07:15	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	10/25/2010	04:40	CST-6	Thunderstorm Wind	60 kts. EG	0	0	2.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	10/27/2010	10:58	CST-6	Thunderstorm Wind	55 kts. EG	0	0	7.00K	0.00K
CHRISTIANA	RANDOLPH CO.	AL	04/04/2011	20:50	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	04/04/2011	20:55	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/15/2011	23:13	CST-6	Thunderstorm Wind	50 kts. MG	0	0	2.00K	0.00K
ROANOKE MUNI ARPT	RANDOLPH CO.	AL	04/15/2011	23:27	CST-6	Thunderstorm Wind	50 kts. MG	0	0	10.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/26/2011	14:58	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
ALMOND	RANDOLPH CO.	AL	01/21/2012	10:30	CST-6	Thunderstorm Wind	74 kts. EG	0	0	0.00K	0.00K

DICKERT	RANDOLPH CO.	AL	01/21/2012	10:34	CST-6	Thunderstorm Wind	75 kts. EG	0	0	0.00K	0.00K
ROCK MILLS	RANDOLPH CO.	AL	01/23/2012	07:44	CST-6	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	12/10/2012	10:21	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	01/30/2013	10:58	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
WADLEY	RANDOLPH CO.	AL	01/30/2013	11:28	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
TENANT	RANDOLPH CO.	AL	01/30/2013	11:39	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
WEHADKEE	RANDOLPH CO.	AL	01/30/2013	11:48	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	03/18/2013	15:34	CST-6	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	06/13/2013	19:05	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	06/13/2013	19:42	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
ROCK MILLS	RANDOLPH CO.	AL	06/13/2013	19:48	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
CORNHOUSE	RANDOLPH CO.	AL	06/17/2013	16:59	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
PITTMAN	RANDOLPH CO.	AL	06/17/2013	17:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	06/27/2013	17:07	CST-6	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
Totals:								0	1	1.650M	0.00K

Table 4-5: Lightning Events

7 Lightning Events – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
WEDOWEE	RANDOLPH CO.	AL	07/14/2004	17:30	CST	Lightning		0	0	8.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	06/06/2005	14:30	CST	Lightning		0	0	60.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/18/2006	18:10	CST	Lightning		0	0	10.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	08/15/2006	15:20	CST	Lightning		0	0	75.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	07/22/2008	15:02	CST-6	Lightning		0	0	50.00K	0.00K
PINE HILL	RANDOLPH CO.	AL	09/09/2009	12:40	CST-6	Lightning		0	0	10.00K	0.00K
CORINTH	RANDOLPH CO.	AL	03/27/2011	00:05	CST-6	Lightning		0	0	10.00K	0.00K
Totals:								0	0	223.00K	0.00K

Table 4-6: Hail Events

45 Hail Events – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
ROANOKE	RANDOLPH CO.	AL	03/05/2003	21:11	CST	Hail	1.00 in.	0	0	0.00K	0.00K
WADLEY	RANDOLPH CO.	AL	03/19/2003	16:15	CST	Hail	0.88 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	03/19/2003	16:45	CST	Hail	4.00 in.	0	0	35.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	03/19/2003	17:05	CST	Hail	1.75 in.	0	0	7.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	03/19/2003	21:25	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	03/19/2003	21:30	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	05/06/2003	14:38	CST	Hail	0.75 in.	0	0	0.00K	0.00K

NEWELL	RANDOLPH CO.	AL	05/07/2003	14:23	CST	Hail	1.00 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/07/2003	16:30	CST	Hail	0.75 in.	0	0	0.00K	0.00K
NEWELL	RANDOLPH CO.	AL	07/06/2004	13:45	CST	Hail	0.88 in.	0	0	0.00K	0.00K
NEWELL	RANDOLPH CO.	AL	02/21/2005	21:05	CST	Hail	1.75 in.	0	0	18.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	02/21/2005	21:49	CST	Hail	1.00 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	02/21/2005	22:14	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/04/2005	14:08	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/04/2005	14:28	CST	Hail	1.75 in.	0	0	3.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/28/2005	14:25	CST	Hail	0.75 in.	0	0	0.00K	0.00K
NEWELL	RANDOLPH CO.	AL	04/19/2006	14:01	CST	Hail	0.88 in.	0	0	0.00K	0.00K
NEWELL	RANDOLPH CO.	AL	04/19/2006	14:07	CST	Hail	1.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/19/2006	14:19	CST	Hail	0.88 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/19/2006	14:20	CST	Hail	1.00 in.	0	0	0.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	04/19/2006	14:30	CST	Hail	2.50 in.	0	0	0.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	04/19/2006	15:30	CST	Hail	2.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	04/19/2006	15:30	CST	Hail	1.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/19/2006	15:30	CST	Hail	1.75 in.	0	0	0.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/19/2006	15:45	CST	Hail	0.88 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/12/2007	17:55	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
RICE MILL	RANDOLPH CO.	AL	03/15/2008	14:48	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/04/2008	15:50	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/04/2008	16:05	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K

RICE MILL	RANDOLPH CO.	AL	05/11/2008	02:05	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	05/20/2008	18:34	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
CORBIN	RANDOLPH CO.	AL	05/20/2008	18:52	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
DINGLER	RANDOLPH CO.	AL	05/20/2008	19:10	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
OMAHA	RANDOLPH CO.	AL	02/18/2009	18:58	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
OMAHA	RANDOLPH CO.	AL	02/18/2009	20:20	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	04/10/2009	16:05	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
NEWELL	RANDOLPH CO.	AL	04/10/2009	16:20	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
WHITE	RANDOLPH CO.	AL	04/24/2010	04:54	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/15/2010	14:30	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
CORINTH	RANDOLPH CO.	AL	03/27/2011	00:05	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/04/2011	21:01	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/04/2011	21:02	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
MALONE	RANDOLPH CO.	AL	04/04/2011	21:02	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
RICE MILL	RANDOLPH CO.	AL	03/16/2012	13:22	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	07/01/2012	15:08	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
Totals:								0	0	63.00K	0.00K

Table 4-7: Tornado Events

6 Tornado Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
WEDOWEE	RANDOLPH CO.	AL	05/07/2003	15:40	CST	Tornado	F1	0	0	85.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/30/2005	05:26	CST	Tornado	F1	0	0	18.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/30/2005	05:30	CST	Tornado	F1	0	0	60.00K	0.00K
CORINTH	RANDOLPH CO.	AL	02/17/2008	14:22	CST-6	Tornado	EF1	0	0	100.00K	0.00K
WEHADKEE	RANDOLPH CO.	AL	02/18/2009	18:55	CST-6	Tornado	EF1	0	0	10.00K	0.00K
GRAHAM	RANDOLPH CO.	AL	12/21/2011	12:32	CST-6	Tornado	EF0	0	0	25.00K	0.00K
Totals:								0	0	298.00K	0.00K

Table 4-8: Flood/Flash Flood Events

15 Flood/Flash Flood Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/08/2003	20:30	CST	Flood		0	0	300.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/18/2003	13:45	CST	Flood		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/11/2005	00:00	CST	Flood		0	0	1.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	05/07/2003	16:00	CST	Flash Flood		0	0	75.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	07/01/2003	08:00	CST	Flash Flood		0	0	10.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	09/16/2004	10:45	CST	Flash Flood	5	0	0	4.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	07/10/2005	17:30	CST	Flash Flood		0	0	2.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	11/15/2006	12:30	CST-6	Flash Flood		0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/16/2009	09:30	CST-6	Flash Flood		0	0	50.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	01/24/2010	13:30	CST-6	Flash Flood		0	0	25.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	06/04/2010	11:30	CST-6	Flash Flood		0	0	115.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	01/23/2012	08:20	CST-6	Flash Flood		0	0	0.00K	0.00K
POTASH	RANDOLPH CO.	AL	01/23/2012	09:45	CST-6	Flash Flood		0	0	0.00K	0.00K
PINE TUCKEY	RANDOLPH CO.	AL	05/18/2013	02:30	CST-6	Flash Flood		0	0	100.00K	0.00K
RICE MILL	RANDOLPH CO.	AL	05/18/2013	10:00	CST-6	Flash Flood		0	0	0.00K	0.00K
Totals:								0	0	682.00K	0.00K

Table 4-9: Drought/Extreme Heat Events

52 Drought/Extreme Heat Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/30/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/14/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/05/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/17/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 4-10: Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events

11 Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events – 01/01/2003 thru 12/31/2013 (4018 days)
(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/07/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/08/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/12/2010	12:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/25/2010	09:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/28/2005	20:45	CST	Ice Storm		0	0	100.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/09/2011	15:35	CST-6	Ice Storm		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/19/2008	06:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/15/2010	12:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/26/2010	05:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/09/2011	17:45	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/24/2003	00:00	CST	Extreme Cold/wind Chill		0	0	0.00K	0.00K
Totals:								0	0	100.00K	0.00K

Table 4-11: Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events

10 Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/10/2005	16:00	CST	Tropical Storm		0	0	47.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/29/2005	23:30	CST	Tropical Storm		0	0	15.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/23/2008	12:00	CST-6	Tropical Depression		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/09/2009	14:00	CST-6	Tropical Depression		0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/16/2004	07:30	CST	High Wind	56 kts. EG	0	0	125.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/07/2004	00:15	CST	Strong Wind	33 kts. ES	0	0	1.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/11/2005	12:00	CST	Strong Wind	40 kts. EG	0	0	4.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/09/2006	18:00	CST	Strong Wind	40 kts. EG	0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/20/2007	18:15	CST-6	Strong Wind	30 kts. EG	0	0	10.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/13/2009	04:30	CST-6	Strong Wind	37 kts. MG	0	0	25.00K	0.00K
Totals:								0	0	231.00K	0.00K

Table 4-12: Sinkhole Events

1 Sinkhole Event – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: *The Randolph Leader*)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
ROANOKE	RANDOLPH	AL	10/2009			Sinkhole		0	0	0	0
Totals:								0	0	0	0

No sinkhole events occurred or were reported to *NOAA NCDC Storm Events Database/U.S. and AL Geological Survey* during 01/01/2003 thru 12/31/2013.

Table 4-13: Earthquake Events

3 Earthquake Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: *www.city-data.com*)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
85.8 miles from county center	RANDOLPH	AL	04/29/2003	08:59:39	CST	Earthquake	4.9	0	0	0	0
88.2 miles from county center	RANDOLPH	AL	08/19/2004	23:51:49	CST	Earthquake	3.6	0	0	0	0
87.6 miles from county center	RANDOLPH	AL	05/09/2004	08:56:10	CST	Earthquake	3.3	0	0	0	0
Totals:								0	0	0	0

No earthquake events occurred or were reported to *NOAA NCDC Storm Events Database/U.S. and AL Geological Survey* during 01/01/2003 thru 12/31/2013.

Table 4-14: Wildfire Events

96 Wildfire Events – 2010 thru 2013

(Source: *Alabama Forestry Commission*)

County	Total # of Fires 2010-2013	Average # of Fires Per Year	Total Acres Burned 2010-2013	Average Acres Burned Per Year	Average Fire Size in Acres
Randolph	96	32	923.65	307.88	9.62

Source: *Alabama Forestry Commission*

Table 4-15: Dam/Levee Failure Events

0 Dam/Levee Failure Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/Local Input)

No dam/levee failure events occurred or were reported during 01/01/2003 thru 12/31/2013.

Hazard Profiles

This section provides: a general description of each hazard; background information about previous occurrences; nature of the hazard to include the extent (or strength) of each hazard; and, the probability and loss estimates of future occurrences of each hazard. The primary effects and hazardous results are considered for all identified hazards. Each hazard was further reviewed to identify the impacts on the county and its jurisdictions. Impact in terms of dollar value for past hazard occurrences are shown for the county in **Table 4-4 through Table 4-15** and for each jurisdiction in their individual Hazard Event table in **Section 6** of this plan. Events occurring within this plan's study period were discussed to demonstrate the strength of the hazard to Randolph County.

I. Thunderstorms

A thunderstorm is a convective cloud that often produces heavy rain, wind gusts, thunder, lightning, and hail. Randolph County experiences many thunderstorms each year. The county is most susceptible to thunderstorms during the spring, summer, and late fall. Most of the damage caused by thunderstorms results from straight-line winds, lightning, flash flooding, and hail. Occasionally, thunderstorms will spawn tornados. **Table 4-4** shows the historical occurrences of thunderstorms during the study period. Damage from thunderstorms can have a wide range of strength. Each jurisdiction is at risk for thunderstorm events.

On May 2, 2013, estimated winds up to 80 miles per hour swept through Wedowee and ended in Roanoke. Numerous trees and power lines were blown down. Two or three homes were destroyed by falling trees while 16 homes sustained moderate to major damage. A light pole at the high school stadium was toppled. The high school, a nursing home, the grammar school, and the recreation center reported minor damages. Six businesses sustained damage including an outbuilding business which suffered major damage. Two chicken houses sustained roof damage. Property damages of \$800,000 resulted.

On July 22, 2008, a warm and unstable air mass led to the development of numerous showers and thunderstorms, some of which produced damaging winds and large hail. A 75 ton, 40 foot tall, gantry crane on the top of R. L. Harris Dam was moved along its tracks by an apparent microburst. The crane subsequently rolled through its end stops, eventually coming to a stop

partially resting over the edge of the dam. The crane itself, and several portions of the dam that it impacted, sustained considerable damage as a result. Property damages of \$300,000 resulted. Also on this date, several trees and power lines were blown down in and just east of Roanoke resulting in \$2,000 of property damages. The top of a pine tree fell on a mobile home near the Roanoke Municipal Airport, where one person was injured and taken to the hospital. Property damages of \$5,000 resulted. A total of \$307,000 in property damages occurred during this event.

Randolph County experienced 59 thunderstorm events in a 10 year period resulting in a greater than 100% probability that a thunderstorm event will occur on an annual basis. The total amount of damages for the 59 thunderstorm events was \$1,650,000 with 43 thunderstorm events causing damage resulting in an estimated \$38,372 of expected annual damages from future events. The referenced thunderstorm event(s) are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a thunderstorm event; the ranking is minor to major.

Primary effects from thunderstorms in Randolph County would include:

1. Straight-line Winds
2. Lightning
3. Flooding
4. Hail
5. Spawning Tornados

Hazardous results from significant thunderstorms in Randolph County would include:

1. High winds can cause downed trees and electrical lines resulting in loss of power.
2. Severe storms are capable of producing intense lightning that poses many threats to people and infrastructure and can ignite fires.
3. Heavy rains can produce severe storm water run-off in developed areas and cause bodies of water to breach their banks.
4. Large hail can injure people and livestock and damage crops.
5. Severe thunderstorms can produce tornados that destroy anything in its path, resulting in loss of power, shelter, and potential loss of life.

II. *Lightning*

Lightning is a natural phenomenon associated with all thunderstorms but can occur in the absence of a storm. Lightning typically occurs as a by-product of a thunderstorm and can cause substantial property damage and loss of human lives. Each jurisdiction is at risk for lightning events. Lightning strikes can cause power outages, fires, electrocution, and disruptions to communication systems. The NOAA NCDC reported seven lightning events during the ten-year study period of 2003-2013, resulting in \$223,000 of property damages. **Table 4-5** shows the historical occurrences of lightning during the study period. The State of Alabama has experienced 11-20 deaths as a result of lightning strikes during 2003 – 2013. In 2006, a lightning event was recorded in Randolph County that resulted in \$75,000 of property damages.

The action of rising and descending air in a thunderstorm separates positive and negative charges, with lightning the result of the buildup and discharge of energy between positive and negative charge areas.

Water and ice particles may also affect the distribution of the electrical charge. In only a few millionths of a second, the air near a lightning strike is heated to 50,000°F, a temperature hotter than the surface of the sun. Thunder is the result of the very rapid heating and cooling of air near the lightning that causes a shock wave.



Figure 4-1: Formation of Lightning

Source: University Corporation for Atmospheric Research (UCAR)

The hazard posed by lightning is significantly underrated. High winds, rainfall, and a darkening cloud cover are the warning signs for possible cloud-to-ground lightning strikes. While many lightning casualties happen at the beginning of an approaching storm, more than half of lightning deaths occur after a thunderstorm has passed. The lightning threat diminishes after the last sound of thunder, but may persist for more than 30 minutes. When thunderstorms are in the area, but not overhead, the lightning threat can exist when skies are clear. Lightning has been known to strike more than 10 miles from the storm in an area with clear sky above.

According to the National Oceanic and Atmospheric Administration (NOAA), an average of 20 million cloud-to-ground flashes has been detected every year in the continental United States. About half of all flashes have more than one ground strike point, so at least 30 million points on the ground is struck on the average each year. In addition, there are roughly 5 to 10 times as many cloud-to-cloud flashes as there are to cloud-to-ground flashes (NOAA, July 7, 2003).

Cloud-to-ground lightning can kill or injure people by either direct or indirect means. The lightning current can branch off to strike a person from a tree, fence, pole, or other tall object. It is not known if all people are killed who are directly struck by the flash itself. In addition, electrical current may be conducted through the ground to a person after lightning strikes a nearby tree, antenna, or other tall object. The current also may travel through power lines, telephone lines, or plumbing pipes to a person who is in contact with an electric appliance, telephone, or plumbing fixture. Lightning may use similar processes to damage property or cause fires.

The probability of a lightning strike causing damage somewhere in Randolph County is high. However, because the impacts are so localized, the site-specific incidence of a lightning strike occurring is considered very low.

A lightning event on August 15, 2006 resulted in \$75,000 property damages in Wedowee. No deaths, injuries, or crop damages were reported for this lightning event. Lightning strikes destroyed the downtown traffic lights, several computers and equipment in the courthouse and commission annex buildings. Lightning also struck a house, which subsequently burned to the ground due to the strike.

On June 6, 2005 lightning struck a home in the Woodland community on County Road

464. The subsequent fire burned the house down to the ground. The residents of the home were able to escape without injury. Property damages of \$60,000 resulted.

On July 22, 2008 a warm and unstable air mass led to the development of numerous showers and thunderstorms, some of which produced damaging winds and large hail. A house on Old Highway 431, in the Morrison Crossroads Community, was destroyed by fire after being struck by lightning. Property damages of \$50,000 resulted.

Randolph County experienced 7 lightning events in a 10 year period resulting in a 70% probability that a lightning event will occur on an annual basis. The total amount of damages for the 7 lightning events was \$223,000 with 7 lightning events causing damage resulting in an estimated \$31,857 of expected annual damages from future events. The referenced lightning event(s) are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a lightning event; the ranking is minimum to minor. Randolph County is at a moderate risk of lightning incidences.

Primary effects from lightning in Randolph County would include:

1. Power Outages
2. Wild Fires
3. Electrocution
4. Disruption of Communication Waves

Hazardous results from significant lightning in Randolph County would include:

1. Power outages result in tremendous losses for food distributors and individuals due to loss of refrigeration as well as disruptions to routine business operations.
2. Fires destroy most everything it comes in contact with and also can be detrimental to the health of any living organism due to the massive smoke cloud it produces.
3. Electrocution of electronic device such as water and sewer pumps can cause disruption in service leading to unsanitary conditions and lack of potable water.
4. Disrupted communications from electrical storms can result in inability to communicate with other agencies, making preparation or recovery from a storm nearly impossible.

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III. Hail

Randolph County is at a severe risk of experiencing hail which has ranged from dime/penny size to grapefruit size in some areas of the county. Hail is an outgrowth of severe thunderstorms and develops within a low-pressure front as warm air rises rapidly in to the upper atmosphere and is subsequently cooled, as shown in **Figure 4-2**, leading to the formation of ice crystals. These are bounced about by high-velocity updraft winds and accumulate into frozen droplets, falling as precipitation after developing enough weight (FEMA, 2003).

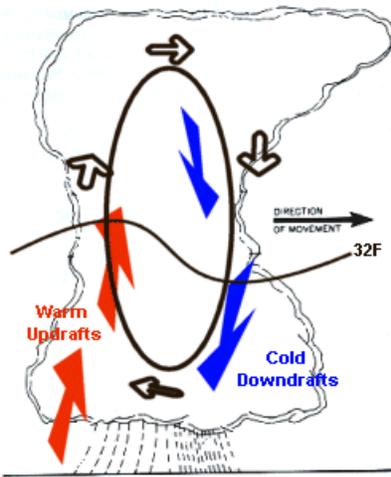


Figure 4-2
How Hail Is Formed

Source: NWS, January 10, 2003

The National Weather Service (NWS) defines severe thunderstorms as those with downdraft winds in excess of 58 miles an hour and/or hail at least 3/4 inches in diameter. While only about 10 percent of thunderstorms are classified as severe, all thunderstorms are dangerous because they produce numerous dangerous conditions, including one or more of the following: hail, strong winds, lightning, tornadoes, and flash flooding (National Weather Service – Flagstaff). The size of hailstones varies and is related to the strength and size of the thunderstorm that produced it. The higher the temperatures at the Earth’s surface, the greater the strength of the updrafts, and the greater the amount of time the hailstones are suspended, giving the hailstones more time to increase in size. Hailstones vary widely in size, as shown in **Table 4-16**. Note that

penny size (3/4 inches in diameter) or larger hail is considered severe.

Table 4-16: Estimating Hail Size

Size	Inches in Diameter
Pea	¼ inch
Marble/mothball	½ inch
Dime/Penny	¾ inch
Nickel	7/8 inch
Quarter	1 inch
Ping-Pong Ball	1 ½ inch
Golf Ball	1 ¾ inch
Tennis Ball	2 ½ inch
Baseball	2 ¾ inch
Tea Cup	3 inches
Grapefruit	4 inches
Softball	4 ½ inches
<i>Source: NWS, January 10, 2003</i>	

Hailstorms occur most frequently during the late spring and early summer, when the jet stream moves northward across the Great Plains. During this period, extreme temperature changes occur from the surface up to the jet stream, resulting in the strong updrafts required for hail formation. Hailstorms occur in some form or fashion on a very regular basis in Randolph County. The annual probability of hail occurring somewhere in the county is clearly quite high; however, the site-specific incidence of hail is considered low because of the localized nature of the hazard.

During 2003-2013, approximately 9 events were reported having hail up to 1.75 inches (golf ball size), one event having hail up to 2 inches, one event having hail up to 2.5 inches, and one event having hail up to 4 inches throughout the county.

On March 19, 2003, a large hail storm affected southern Randolph County from near Wadley to Roanoke to near the Georgia State Line. Hail ranging from nickel size to grapefruit size was reported. The grapefruit size hail fell in the Friendship Community and collected up to a foot deep. Property damages of \$35,000 occurred as a result.

On February 21, 2005, quarter to golf ball size hail was reported across the northern half

of Randolph County. A few locations observed the hail covering the ground. A few vehicles were damaged by the large hail. Property damages of \$18,000 occurred as a result.

Randolph County experienced 45 hail events in a 10 year period resulting in a greater than 100% probability that a hail event will occur on an annual basis. The total amount of damages for the 45 hail events was \$63,000 with 4 hail events causing damage resulting in an estimated \$15,750 of expected annual damages from future events. The referenced hail event(s) are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a hail event; the ranking is minor to major.

Primary Effects from Hail in Randolph County would include:

1. Property Damage
2. Crop Damage
3. Communication equipment damage
4. Livestock loss and injury

Hazardous results from significant Hail in Randolph County would include:

1. Any size hail can damage exposed real and personal property. Hail is a major problem for car dealerships, as the unprotected lots of cars receive major damage.
2. Heavy hail is capable of destroying entire crop yields. Farmers of above ground crops are especially concerned with hail as it is extremely detrimental to the crop.
3. Communication equipment, such as receivers, is susceptible to large hail. These instruments can be seriously damaged or destroyed by large hail.
4. Large hail is a danger to livestock of all sorts and is a threat farmers must consider. Hundreds of thousands of dollars are invested in these animals which may be injured or killed in a hailstorm.

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IV. Tornadoes

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. Tornadoes are rotating columns of air extending downward to the ground with recorded winds in excess of 300 miles per hour. Most tornadoes last less than 30 minutes, but can exist for more than an hour. In Alabama the typical tornado season extends from March through early June, with April and June being peak months for tornado activity. Additionally, Alabama experiences a secondary tornado season from November through December. **Figure 4-3** shows the general paths of tornados across the United States.

Figure 4-4 shows the FEMA designated wind zones in the United States. Randolph County is located in Zone IV. Zone IV has witnessed a higher frequency of tornados than any other zone. Zone IV has also witnessed some of the deadliest tornados in history. The impacts of tornados can be far-reaching. Life, property, and personal items are at risk. Tornadoes do not follow a definite path; all jurisdictions are vulnerable to tornado events. Property damage, injury, and death can result from the weakest tornados. Interruption of electrical services, communications, and other utilities may occur. Transportation corridors may be blocked or even destroyed. Debris removal can take time and can be costly. Residents may suffer from post-traumatic stress disorder, depression, anxiety, and grief for lost loved ones. Longer response times results from having limited emergency personnel.

A total of 6 tornados occurred in Randolph County according to NOAA NCDC during 2003 - 2013. An estimated \$298,000 in property damages with no injuries, deaths, or crop damages, occurred as a result of the reported tornados. **Table 4-17** lists the figures used by FEMA for the valuation of deaths and injuries. These figures are approximations and are based on FEMA guidance used in benefit-cost analysis of hazard mitigation measures.

Table 4-17: Values Used for Monetary Conversion of Tornado Injuries and Deaths

Damage Category	Value for Monetary Conversion
Injury (blended major and minor)	\$23,175
Death	\$3,666,003

(Source: FEMA Guidance)

Areas with higher population densities pose the greatest potential for property damage, injury, and death. The City of Roanoke is the most densely populated area in the county. Communities with a high concentration of mobile homes are extremely vulnerable to tornados. Mobile homes are not capable of withstanding the strong winds associated with tornados. Randolph County has a total of 2,936 mobile homes countywide, 24% of the total housing stock. The greatest concentration of mobile homes in a municipality is in the Town of Wedowee where 23% of the units are mobile homes.

The most significant event during the study period began in the area of Corinth and ended in the area of Sewell on February 17, 2008 with an EF1 tornado, 14.71 miles in length and 150 yards wide. A broken squall line, sparked by an advancing cold front and strong upper level storm, caused severe thunderstorms and tornadoes across Central Alabama. The tornado touched down on CR-15 near the Pleasant Grove Church, about 3 miles southwest of Wedowee. It then tracked northeast, damaging five homes, at least two vehicles and three barns. One shop and numerous other outbuildings were significantly damaged or destroyed. Additionally, several dozen trees were either snapped off or were uprooted along the path. The tornado lifted near the Georgia State Line at CR-477. The entire county is vulnerable to high winds caused by tornadoes. The location of Randolph County in Wind Zones III and IV, past occurrences of tornados, and the potential for future occurrences to cause damage, death, and injuries leaves Randolph County vulnerable to and at risk for tornados.

Randolph County experienced 6 tornado events in a 10 year period resulting in a 60% probability that a tornado event will occur on an annual basis. The total amount of damages for the 6 tornado events was \$298,000 with 6 tornado events causing damage resulting in an estimated \$50,000 of expected annual damages from future events. The referenced tornado

event(s) are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a tornado event; the ranking is minor to major.

Primary effects from Tornados in Randolph County would include:

1. Loss of life
2. Property damage
3. Infrastructure destruction and damage
4. Sanitation and water delivery interruption

Hazardous results from significant Tornados in Randolph County would include:

1. Collapse of structures can leave people homeless.
2. Roadways may become blocked by debris. Damage may destroy automobiles, creating additional hardships to individuals and families and business operations.
3. High wind speeds associated with a tornado can destroy anything in its path. Power poles topple, communication receivers are destroyed, and water sanitation and treatment plants are offline.
4. Due to destruction, sanitation crews are unable to remove massive amounts of waste, and water delivery is disrupted. This can lead to an increase in disease-carrying insects and lack of potable water.

Figure 4-3: Generalized Tornado Paths

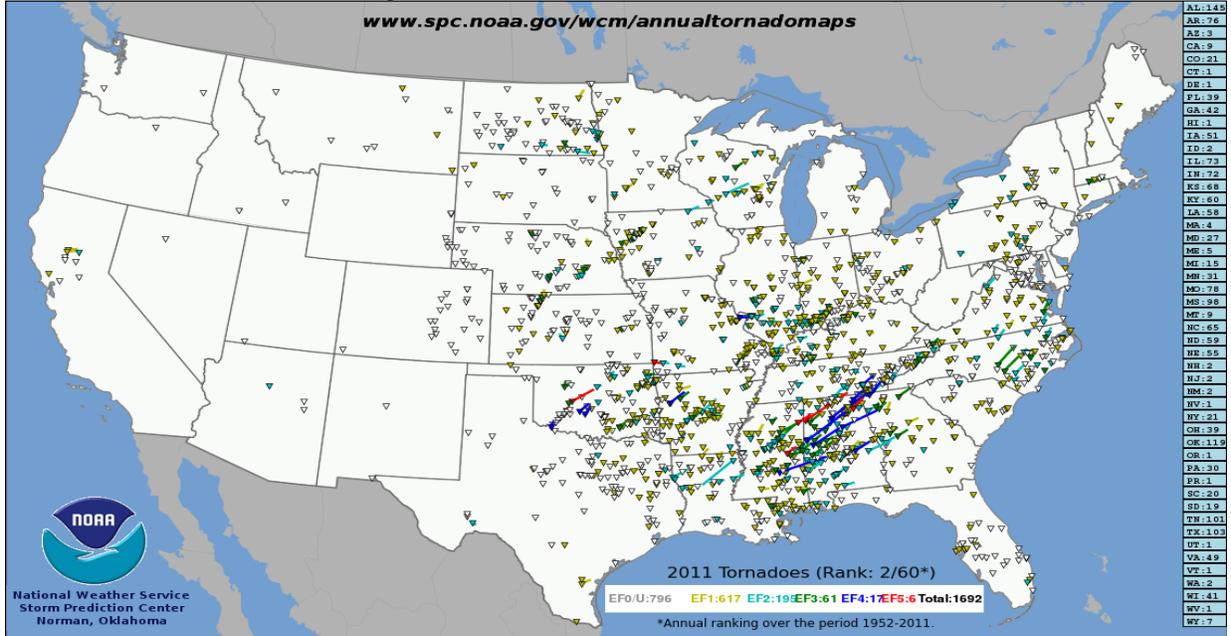


Figure 4-4: Wind Zones in the United States



Source: www.fema.gov

Figure 4-4 shows the different wind zones throughout the State of Alabama used by the American Society of Civil Engineers (ASCE) for determining design wind speeds. Design wind

speeds are used by engineers to determine what type of winds (i.e. how strong) a building should be designed to withstand. According to **Figure 4-4**, the U. S. Wind Zone map, Randolph County is located in Zones III and IV. This map shows the frequency and strength of extreme windstorms across the U. S. The map is based on 40 years of tornado history and more than 100 years of hurricane history. Zone III has experienced both frequent and strong tornadoes, with wind speeds reaching 200 mph; while, Zone IV has experienced both frequent and strong tornadoes, with wind speeds reaching 250 mph.

Tornados are now measured using the new Enhanced Fujita Tornado Scale by examining the damage caused by the tornado after it passes over man-made structures and vegetation. The new scale was put into use in February of 2007. Due to the study period of the plan, this goes from 2003-2013, events shown in **Table 4-7** express the magnitude of tornados using the original Fujita scale and the enhanced Fujita scale. Below is a table comparing the estimated winds in the original F-scale and the operational EF-scale that is currently in use by the National Weather Service, as well as damage descriptions of each category. Like the original Fujita scale, there are six categories from zero to five that represent damage in increasing degrees. The new scale incorporates the use of 28 Damage Indicators and 8 Degrees of Damage to assign a rating. The new scale takes into account quality of construction and standardizes different kinds of structures. The only differences between the Fujita Scale and the Enhanced Fujita Scale is adjusted wind speeds, measurements of which weren't used in previous ratings, and refined damage descriptors; to standardize ratings and to make it easier to rate tornadoes which strike few structures.

Table 4-18: Fujita Tornado Scales

Fujita Tornado Scale

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.

Source: FEMA, 1997.

Enhanced Fujita Tornado Scale

Category	Wind Speed	Description of Damage
EF0	65-85 mph	Light damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF1	86-110 mph	Moderate damage. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2	111-135 mph	Considerable damage. Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF3	136-165 mph	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF4	166-200 mph	Devastating damage. Well-constructed houses and whole frame houses completely leveled; cars thrown and small missiles generated.
EF5	>200 mph	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 m (109 yd); high-rise buildings have significant structural deformation; incredible phenomena will occur. So far only one EF5 tornado has been recorded since the Enhanced Fujita Scale was introduced on February 1, 2007.

Source: NOAA, NWS, Storm Prediction Center, 2007

V. *Floods/Flash Floods*

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. Nationwide, hundreds of floods occur each year, making them one of the most common hazards in the U.S. (FEMA, 1997). There are a number of categories of floods in the U.S., including the following:

- Riverine flooding, including overflow from a river channel, flash floods, alluvial fan floods, ice-jam floods and dam break floods
- Local drainage or high groundwater levels
- Fluctuating lake levels
- Coastal flooding, including storm surges
- Debris flows
- Subsidence

While there is no sharp distinction between riverine floods, flash floods, alluvial fan floods, ice jam floods, and dam-break floods, these types of floods are widely recognized and may be helpful in considering the range of flood risk and appropriate responses.

The most common kind of flooding event is riverine flooding, also known as overbank flooding. Riverine floodplains range from narrow, confined channels in the steep valleys of mountainous and hilly regions, to wide, flat areas in plains and coastal regions. The amount of water in the floodplain is a function of the size and topography of the contributing watershed, the regional and local 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 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. Dam failure and ice jams may also lead to flash flooding.

Alluvial fan floods occur in the deposits of rock and soil that have eroded from mountainsides and accumulated on valley floors in the pattern of a fan. Alluvial fan floods often cause greater damage than overbank flooding due to the high velocity of the flow, amount of debris, and broad area affected. Human activities may exacerbate flooding and erosion on alluvial fans via increased velocity along roadway acting as temporary drainage channels or changes to natural drainage channels from fill, grading, and structures.

Ice jam floods are primarily a function of the weather and are most likely to occur where the channel slope naturally decreases, culverts freeze solid, reservoir headwaters, natural channel constructions (e.g., bends and bridges), and along shallows.

Dam-break floods may occur due to structural failures (e.g., progressive erosion), overtopping or breach from flooding, or earthquakes.

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

Flooding/flash flooding caused by rainfall occurs to some extent almost every year in almost every part of Randolph County. Flooding occurs most frequently between November and April, with a peak from February through April. Flash flooding has the potential to affect every jurisdiction in Randolph County. Riverine flooding can potentially create minor to moderate property damage and a slight risk of casualties throughout areas of the county adjacent to rivers and creeks. Flash flooding can potentially create extensive property damage and casualties to the entire county. Riverine and flash flooding can also affect accessibility for emergency services. **Table 4-19** shows the flood risk in dollar amount to critical facilities in Randolph County based on FEMA HAZUS-MH 2011.

**Table 4-19: Flood Risk to Randolph County Critical Facilities
based on FEMA HAZUS Data**

County	Medical	Police	Schools	Fire	EOCs	Total
Randolph	\$16,093,570	\$6,300,000	\$67,555,840	\$20,160,000	\$900,000	\$111,009,410

(Source: HAZUS MH 2.1)

Dam and levee failures are flood risks. According to HAZUS-MH 2011, Randolph County has 31 High Density Polyethylene (HPDE - Earth) Dams and 1 HPDG (Concrete Gravity) dam. The one HPDG (R. L. Harris Dam) is considered the only high hazard dam in the county. A high hazard dam is one where failure or mis-operation will probably cause loss of human life. The High Pine Creek Watershed Dam No. 2, High Pine Creek Watershed Dam No. 6, and the College Lake Dam are considered significant hazard dams. A significant hazard dam is one where failure or mis-operation will probably result in no loss of human life, but can cause economic loss, environmental damage, and disruption of lifeline facilities, or can impact other concerns such as agricultural or infrastructural. All other dams are considered low hazard dams. A low hazard dam is one where failure or mis-operation will probably result in no loss of human life and low economic and/or environmental losses – losses are principally limited to the owner’s property. In the event of a flood or significant earthquake in Randolph County, the possibility for an emergency situation could exist at the high hazard and significant hazard dams. The RCEMA is prepared to coordinate efforts if an event arises at these dams. No historical records are available of dam/levee failures in Randolph County. When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path. The area impacted by the water emitted by dam failure would encounter the same risks as those in a flood zone during periods of flooding. The area directly affected by the water released during a dam failure is not county wide.

Flooding can occur along the banks of the creeks and streams that flow throughout the county and where development has encroached in the floodplain. Flash flooding can occur anywhere in the county due to inadequate or clogged drainage systems and excessive rainfall. Unpaved dirt roads, common in the rural areas, are particularly vulnerable. Impacts in developed areas include street flooding and water backing up into homes and buildings. In addition to damaging homes, flooding can adversely impact crops, water and sewer systems, and dams and

levees. All jurisdictions are vulnerable to flood events.

On May 8, 2003, a flood resulted in \$300,000 property damage. The Tallapoosa River at Wadley was above the flood stage of 13 feet. A crest of approximately 38 feet occurred in the afternoon of May 8. The crest height and time were estimated because the river gauge on SR 22 Bridge over the river was under water. The Town of Wadley was cut off on the 8th and 9th due to flooding of SR 22 both west and east of the town. The historic flooding came after an estimated 10 inches of rain fell across a large portion of the Tallapoosa River basin. The R. L. Harris Dam opened five of six gates to release water from behind the dam. A number of buildings were flooded in and around Wadley, including a small market on the west side of Wadley on SR 22 which had 3 feet of water inside. Farm equipment was caught in areas near the river and also flooded. (*Source: NOAA NCDC*)

On June 4, 2010, a flash flood resulted in \$115,000 property damage. Slow moving thunderstorms in a very moist environment produced flooding in several locations across Central Alabama. Significant flooding was reported around the City of Roanoke. Several streets became impassable with a foot or more of water flowing over them, and several homes in the area got up to 3 feet of water inside them. The hardest hit area was along AL-22, near Midway Full Gospel Church. At least one unoccupied vehicle was carried about 400 feet down a flood swollen creek, and an additional vehicle in the same area was submerged for a time. One person had to be rescued from her trailer after flood waters surrounded it.

The probability of future occurrences of dam/levee failure events cannot be characterized on a countywide basis because of the lack of information available. The qualitative probability is rated low because the overall area affected is low and impacts are localized. This rating is intended only for general comparison to other hazards that are being considered.

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

Floods are described in terms of their extent (including the horizontal area affected and the vertical depth of floodwaters) and the related probability of occurrence. Flood studies use historical records to determine the probability of occurrence for different extents of flooding. The probability of occurrence is expressed in percentages as the chance of a flood of a specific extent occurring in any given year. It is also often referred to as the “100-year flood” since its probability of occurrence suggests it should only occur once every 100 years. This expression is, however, merely a simple and general way to express the statistical likelihood of a flood; actual recurrence periods are variable from place to place. Smaller floods occur more often than larger (deeper and more widespread) floods. Thus, a “10-year” flood has a greater likelihood of occurring than a “100-year” flood. **Table 4-20** shows a range of flood recurrence intervals and their probabilities of occurrence.

Table 4-20: Flood Probability Terms	
Flood Recurrence Intervals	Percent Chance of Annual Occurrence
10-Year	10.0%
50-Year	2.0%
100-Year	1.0%
500-Year	0.2%
<i>(Source: FEMA, August 2001)</i>	

Randolph County experienced 15 flood/flash flood events in a 10 year period resulting in a greater than 100% probability that a flood/flash flood event will occur on an annual basis. The total amount of damages for the 15 flood/flash flood events was \$682,000 with 10 flood/flash flood events causing damage resulting in an estimated \$68,200 of expected annual damages from future events. The referenced flood event(s) are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a flood event; the ranking is minor to major.

Primary Effects from Floods in Randolph County would include:

1. Loss of life
2. Property damage
3. Crop damage
4. Dam and levee failure

Hazardous results from significant flood in Randolph County would include:

1. Rising water levels can quickly sweep people along in its path.
2. Rapidly moving water destroys anything in its path and also leaves hazardous mold and breed insects.
3. Periods of standing water kill inadaptible plants, and flowing water removes sediment and nutrients from the soil.
4. Breached dams and levees allow water to flood into the surrounding floodplain resulting in destruction of crops and property.

Dam failures may result from one or more the following:

1. Prolonged periods of rainfall and flooding (the cause of most failures)
2. Inadequate spillway capacity which causes excess overtopping flows
3. Internal erosion erosions due to embankment or foundation leakage or piping
4. Improper maintenance
5. Improper design
6. Negligent operation
7. Failure of upstream dams
8. Landslides into reservoirs
9. High winds
10. Earthquakes

Flood Assessment Tools

Programs

Randolph County participates in the *National Flood Insurance Program (NFIP)*. The *NFIP* allows property owners to purchase federally sponsored flood insurance. The *NFIP* maps communities in order to establish Flood Risk Zones or Special Flood Hazards Areas. These hazard areas are then mapped on the *Flood Insurance Rate Maps (FIRMS)*. *FIRMS* are used to

assess the risks of floods and aid in proper floodplain management. An update of the flood maps of Randolph County was completed in 2011. Currently the Town of Woodland is not participating in the NFIP; while the county and remaining jurisdictions are considered participants in the NFIP. The Town of Wadley has no determined elevations; therefore, all areas are Zone A, C, and X. The National Flood Insurance Program (NFIP) requires local participation. **Table 4-21** shows the current NFIP status of each jurisdiction. There are no Severe Repetitive Loss Properties or Repetitive Loss Properties in Randolph County at this time.

Flood Mitigation Assistance Program (FMA) - This program now allows for additional cost share flexibility: up to 100% federal cost share for severe repetitive loss properties; up to 90% federal costs share for repetitive loss properties; and 75% federal cost share for NFIP insured properties. The Repetitive Flood Claims (RFC) and Severe Repetitive Loss (SRL) Grant Programs were eliminated by the Biggert-Waters Flood Insurance Reform Act of 2012. Elements of these flood grant programs have been incorporated into FMA.

Regulations

The *National Pollutant Discharge Elimination System (NPDES)* requires cities to obtain a NPDES permit for the discharge of wastewater/storm water. This program will address residential and commercial land uses, illicit discharges and improper disposal, industrial facilities, and construction sites.

Additionally, Randolph County and each jurisdiction have various plans and regulatory tools in place to aid in hazard mitigation as shown earlier in the plan in **Table 2-1**.

Table 4-21: Randolph County National Flood Insurance Program Status by Jurisdiction						
CID	Community Name	Initial FHBM Identified	Initial FIRM Identified	Current Eff. Map Date	Reg-Emer Date	Tribal
010182#	Randolph County	09/13/74	07/05/82	04/18/11	11/05/03	No
010348#	City of Roanoke	06/10/77	07/05/82	04/18/11	05/03/95	No
010183#	Town of Wadley	05/17/74	08/19/85	04/18/11 (M)	08/19/85	No
010401#	Town of Wedowee	10/06/78	07/05/82	04/18/11	10/29/98	No
	Town of Woodland	Not Participating				
<i>Source: FEMA Community Status Book Report as of February 6, 2014</i>						
<i>Key: M = No Elevation Determined – All Zone A, C, and X</i>						

The Town of Woodland is not mapped a flood zone; therefore, the town is not a NFIP participating community. Once mapped, the town will make application to participate in the NFIP.

VI. *Drought/Extreme Heat*

Droughts and heat waves have a county-wide impact. The future incidence of drought is highly unpredictable, conditions may be localized or widespread, and not much historical data is available making it difficult to determine the future probability of drought conditions with any accuracy. The qualitative probability rating for drought is high. Though historically not a major problem, the region is susceptible to extreme drought conditions.

The climate of Randolph County is best described as being closer to a continental climate. Average temperature ranges from 90 degrees F to 70 degrees F during a summer day and 45 degrees F to 10 degrees F during a winter day to 65 degrees F to 50 degrees F during a summer night and 25 degrees F to -10 degrees F during a winter night. Generally, Randolph County has hot summers and mild winters.

Drought is a normal part of virtually every climate on the planet, including areas of both high and low normal rainfalls. 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 strength of drought can be aggravated by other climatic factors, such as prolonged high winds and low relative humidity (FEMA, 1997). Drought is a complex natural hazard which is reflected in the following four definitions commonly used to describe it:

Meteorological droughts are defined as the degree of dryness as compared to the normal precipitation for the area over the duration of the dry season. This type of drought is specific to a given region since atmospheric conditions and precipitation vary from one region to the next.

Hydrological droughts are associated with the effects of precipitation deficiencies on surface or groundwater supplies. Hydrological droughts do not occur as often as meteorological or agricultural droughts. It takes longer for precipitation deficiencies to show up in soil moisture, stream flow, groundwater levels, and reservoir levels. Hydrological droughts have an immediate impact on crop production, but reservoirs may not be affected for several months. Climate, changes in land use, land degradation, and the construction of dams can have adverse effects on the hydrological system especially in drought conditions.

Agricultural droughts occur when the moisture in the soil no longer meets the needs of the crops.

Socioeconomic droughts occur when physical water shortage begins to affect people and their quality of life. Socioeconomic drought occurs when the demand for water exceeds the supply as a result of weather-related supply shortfall. They may also be called a water management drought. A drought's strength depends on numerous factors, including duration, intensity, and geographic extent as well as regional water supply demands by humans and vegetation. Due to its multidimensional 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 of 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 strength. 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 plans by many governments.

Droughts may cause a shortage of water for human and industrial consumption, hydroelectric power, recreation, and navigation. Water quality may also decline and the number and strength of wildfires may increase. Severe droughts may result in the loss of agricultural crops and forest products, undernourished wildlife and livestock, lower land values, and higher unemployment.

Extreme summer heat is the combination of very high temperatures and exceptionally humid conditions. If such conditions persist for an extended period of time, it is called a heat wave (FEMA, 1997). Heat stress can be indexed by combining the effects of temperature and humidity, as shown in **Table 4-23**. The index estimates the relationship between dry bulb temperatures (at different humidity) and the skin's resistance to heat and moisture transfer - the higher the temperature or humidity, the higher the apparent temperature. The human risks associated with extreme heat include heatstroke, heat exhaustion, heat syncope, heat cramps.

In addition to affecting people, severe heat places significant stress on plants and

animals. The effects of severe heat on agricultural products, such as cotton, may include reduced yields and even loss of crops (Brown and Zeiher, 1997). Similarly, cows may become overheated, leading to reduced milk production and other problems. (Garcia, September 2002).

Drought is a natural event that, unlike floods or tornadoes, does not occur in a violent burst but gradually happens; furthermore, the duration and extent of drought conditions are unknown because rainfall is unpredictable in amount, duration and location. Drought events can potentially affect the entire county.

The Draft Alabama Drought Management Plan (DMP), developed by the Alabama Department of Economic and Community Affairs – Office of Water Resources (ADECA-OWR), defines drought in terms of several indices that describe the relative amounts of surface water flow, groundwater levels, and recent precipitation as compared to localized norms. Because drought is defined in relative terms, it can be stated that all areas of the county are susceptible to drought.

The National Weather Service uses two indexes to categorize drought. The most accurate index of short-term drought is the Crop Moisture Index (CMI). This index is effective in determining short-term dryness or wetness affecting agriculture. The most accurate index of long-term drought is the Palmer Index (PI). It has become the semi-official index of drought.

Most recently during this study period, Randolph County experienced severe (D2) to exceptional (D4) drought conditions, as explained in **Table 4-22**, from January 2012 through January 2013 having hydrologic, agricultural, and sociological impacts. Crops became highly stressed due to the lack of rainfall, with losses ranging from 50 to nearly 100 percent. Many crops were considered to be in poor or very poor condition, along with livestock and hay production. In addition, about 60 percent of the livestock, and 75 percent of pasture lands, were also considered to be poor or very poor, and hay yields for the summer were less than half of normal. Stream flows on area rivers and waterways remained near record low levels, and most reservoir levels were well below normal. Navigation on major rivers became significantly impacted, and many boat landings on major lakes became unusable due to extremely low lake levels. The number of mandatory water restrictions continued to increase, with fines and surcharges being enforced for excessive water usage. Many residential lawns,

shrubbery, and gardens became severely stressed by the very dry conditions. Statewide, 31 counties were declared a disaster area. Alabama farmers received one million dollars in federal disaster aid along with other grant assistance. It was during this time that the State implemented its Drought Monitoring System. Drought conditions continued to escalate and by August 2007 all 67 Alabama counties were declared Natural Disaster areas by the Federal Government. The State Agriculture Commissioner (at the time) Ron Sparks referred to this event as the worst drought in 30-40 years. (*Source: NOAA NCDC*)

Table 4-22: Drought Strength Classification

Category	Description	Possible Impacts	Ranges				Objective Short and Long-term Drought Indicator Blends (Percentiles)
			Palmer Drought Index	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Standardized Precipitation Index (SPI)	
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered	-1.0 to -1.9	21-30	21-30	-0.5 to -0.7	21-30
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested	-2.0 to -2.9	11-20	11-20	-0.8 to -1.2	11-20
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed	-3.0 to -3.9	6-10	6-10	-1.3 to -1.5	6-10
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions	-4.0 to -4.9	3-5	3-5	-1.6 to -1.9	3-5
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies	-5.0 or less	0-2	0-2	-2.0 or less	0-2

Randolph County experienced 52 drought/extreme heat events in a 10 year period resulting in a greater than 100% probability that a drought event will occur on an annual basis. The total amount of damages for the 52 drought/extreme heat events was \$0 with 0 drought events causing damage resulting in an estimated \$0 of expected annual damages from future events. The referenced drought/extreme heat event(s) are the ones that resulted in the most

damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a drought/extreme heat event; the ranking is minor to major.

Primary effects from Drought and Excessive Heat in Randolph County would include:

1. Crop and other agricultural damage
2. Water supply shortage - water wells, creeks, rivers, and lakes dry up
3. Increase vulnerability to forest fires and sinkholes
4. Heat exhaustion; heat stroke; heat syncope; and heat cramps

Hazardous results from significant Drought and Excessive Heat in Randolph County would include:

1. Agricultural damage from drought will result in economic losses of crops and livestock.
2. A water supply shortage will result in the necessity for water to be trucked into the area, damage to the sewer system and lack of hydroelectric power.
3. Forest fires can devastate vast acreages and burn homes and businesses.
4. Heat exhaustion can be debilitating and result in a hospital stay. Heat stroke can cause death.
5. Energy prices will inflate due to loss of hydro-power

Temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks are defined as extreme heat. Humid or muggy conditions occur when a “dome” of high atmospheric pressure traps hazy, damp air near the ground. The combination of high temperatures and humid conditions increase the level of discomfort and the potential for danger to humans. A sibling to the heat wave is the drought. Droughts occur when a long period passes without any substantial rainfall. A heat wave combined with a drought is a very dangerous situation.

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

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

may be delirious, stuporous, or comatose. The death to care ratio in reported cases averages about 15%.

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

In 1979 R. G. Steadman, a meteorologist, developed the heat index, which is a relationship between dry bulb temperatures (at different humidity) and the skin's resistance to heat and moisture transfer. Utilizing Steadman's heat index, the following table was developed to show the risk associated with ranges in apparent temperature or heat index.

Table 4-23: Heat Index/Heat Disorders

Danger Category	Heat Disorder	Apparent Temperature (°F)
IV Extreme Danger	Heatstroke or sunstroke imminent.	>130
III Danger	Sunstroke, heat cramps, or heat exhaustion likely, heat stroke possible with prolonged exposure and physical activity.	105-130
II Extreme Caution	Sunstroke, heat cramps, and heat exhaustion possible with prolonged exposure and physical activity.	90-105
I Caution	Fatigue possible with prolonged exposure and physical activity.	80-90

(Source: National Weather Service, 1997)

VII. Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold

Randolph County is vulnerable to extreme winter weather conditions such as extreme cold temperatures, snow, and ice. **Table 4-10** shows the winter storm/frost freeze/heavy snow/ice storm/winter weather/extreme cold events that have affected Randolph County from 2003 - 2013.

Randolph County commonly has winter storm/frost freeze/heavy snow/ice storm/winter weather/extreme cold events. These events impact the county in a variety of ways. Ice and small amounts of snow can cripple the county. Drivers are not accustomed to driving in these conditions, therefore many accidents occur. Snow and ice can weigh down tree limbs and power lines causing them to break, resulting in power failure and property damage. Local businesses and residents are not equipped with generators to restore power during these severe winter weather events. Also many homes may not be properly insulated, leading to health concerns and deaths. Since these storms have no defined track, all residents of Randolph County are vulnerable to severe winter storms.

The most common impacts of severe winter weather are power failure due to downed power lines and traffic hazards. Winter storm occurrences tend to be very disruptive to transportation and commerce as the county and its citizens are unaccustomed to them. Trees, cars, roads, and other surfaces develop a coating or glaze of ice, making even small accumulations of ice extremely hazardous to motorists and pedestrians. The most prevalent impacts of heavy accumulations of ice are slippery roads and walkways that lead to vehicle and pedestrian accidents; collapsed roofs from fallen trees and limbs and heavy ice and snow loads; and fallen trees, telephone poles and lines, electrical wires, and communication towers. As a result of severe ice storms, telecommunications and power can be disrupted for days. Also many homes and buildings, especially in rural areas, lack proper insulation or heating, leading to risk of hypothermia. Extremely cold temperatures accompanied by strong winds can result in wind chills that cause bodily injury such as frostbite and death.

On January 28-29, 2005, an ice storm resulted in \$100,000 of property damages in Randolph County. A strong cold air damming along the Southern Appalachians provided a continuous source of surface cold and dry air from the east. This colder air, in combination with an approaching storm system with abundant gulf moisture, changed the rain to freezing rain across

a large part of eastern Alabama. At least 15 vehicles slid off the roadways under the icy conditions. Exposed surfaces had ice accumulation to at least one half of an inch with a few locations reporting ice accumulations of around one inch. Numerous trees, tree limbs, and power lines were knocked down and many of the fallen trees temporarily blocked roadways. Several homes and vehicles were damaged by the fallen trees. Several area bridges became totally iced over and were very hazardous for travel. Many roads were temporarily closed due to icing. Power outages were widespread during the early morning hours with up to 30,000 homes and businesses without power. The rain changed over to freezing rain just after sunset on January 28. Icing conditions started in the early evening hours and tapered off to no additional significant accumulations early on January 29.

Frost freezes occurred most recently on April 7-8, 2007 with sub-freezing temperatures. An unusually cold spring time air mass settled across Central Alabama, bringing record cold temperatures to the entire region. No injuries, fatalities, or damages were reported.

On February 12, 2010, a low pressure system moving across the northern Gulf of Mexico brought a swath of snow to a large portion of Central Alabama. The highest snowfall amounts were in the eastern and southern sections of Central Alabama, with 3 to as much as 7 inches of snow reported in these areas. The snow caused numerous businesses and schools to close, and created hazardous travel across a large portion of the area. An average of 2.5 to 3.5 inches of snow fell across Randolph County. The highest amount, just under 4 inches, was reported in the Rock Stand community. Many bridges and other elevated surfaces became icy and hazardous.

Winter weather occurred most recently on February 9-10, 2011 creating light snowfall across the county and resulting in reduced visibilities and hazardous road conditions.

Randolph County experienced 11 winter storm/frost freeze/heavy snow/ice storm/winter weather/extreme cold events in a 10 year period resulting in a 100% probability that a winter storm/frost freeze/heavy snow/ice storm/winter weather/extreme cold event will occur on an annual basis. The total amount of damages for the 11 winter storm/frost freeze/heavy snow/ice storm/winter weather/extreme cold events was \$100,000 with 1 winter storm/frost freeze/heavy snow/ice storm/winter weather/extreme cold event causing damage resulting in an estimated \$100,000 of expected annual damages from future events. The referenced winter storm/frost

freeze/heavy snow/ice storm/winter weather/extreme cold event(s) are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a winter storm/frost freeze/heavy snow/ice storm/winter weather/extreme cold event; the ranking is minimum to minor.

Primary effects from winter storms in Randolph County would include:

1. Injury and damage from downed trees and utility lines due to the snow and ice load
2. Widespread impassable roads and bridges
3. Disruption of services and response capabilities
4. Crop and other agricultural damage

Hazardous results from winter storms in Randolph County would include:

1. Loss of power, communications, and fires are common results of severe winter storms. Widespread power outages close down businesses and impact hospitals, nursing homes, and adult and child care facilities serving special needs populations.
2. Loss of transportation ability will affect emergency response, recovery and supply of food and materials.
3. Numerous vehicle accidents in a winter storm can stretch thin the resources of fire rescue and law enforcement.
4. Stranded motorists and the homeless can create a food and housing shortage within the community.
5. The widespread nature of winter storms usually creates a strain on police, fire and medical providers due to the volume of calls for service.

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VIII. Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind

Hurricane season in the northern Atlantic Ocean, which affects the United States, begins on June 1 and ends on November 31. These months accompany warmer sea surface temperatures which is a required element to produce the necessary environment for tropical cyclone/hurricane development.

NOAA measures wind speeds for thunderstorm/wind and hurricane events in knots (kts) while the Saffir-Simpson scale as shown in **Table 4-24**, measures wind speed in miles per hour. Both knots and miles per hour is a speed measured by a number of units of distance covered in certain amount of time. Here is how knots compare to MPH:

- 1 knot = 1 nautical mile per hour = 6076.12 feet per hour
- 1 MPH = 1 mile per hour = 5280 feet per hour

To convert knots into miles per hour, multiply the number of knots by 1.151.

Saffir-Simpson Hurricane Wind Scale

Once a tropical storm reaches the level of a hurricane, it is then classified by the storm's intensity. Intensity levels, or categories, are used to assign a number (e.g., Category 1) to a hurricane based on the storm's intensity at the current time. The Saffir-Simpson Hurricane Wind Scale, **Table 4-24**, is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. With the scale in place, people within the hurricane's tract can better estimate the type of damage they should expect (i.e., wind and/or flooding impacts) due to the intensity of the oncoming hurricane.

Table 4-24: Saffir-Simpson Hurricane Wind Scale

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph 64-82 kt 119-153 km/h	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph 83-95 kt 154-177 km/h	Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3 (major)	111-129 mph 96-112 kt 178-208 km/h	Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4 (major)	130-156 mph 113-136 kt 209-251 km/h	Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5 (major)	157 mph or higher 137 kt or higher 252 km/h or higher	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

(Source: National Hurricane Center – NOAA)

Hurricanes impact areas in a variety of ways. The intensity of the storm, the speed of the winds, whether the storm moves through an area quickly or whether it stalls over one area all are variables toward the physical damage the storm will cause. Storm surges, high winds, and heavy rains are the three primary elements of hurricanes, while tornados and inland flooding are potential secondary elements caused in the wake of the storm. Randolph County is not directly affected by storm surges.

Randolph County is at a low risk for a direct hit by a hurricane due to its position several miles inland from the Alabama coastline. Although Randolph County does not feel the effects of storm surges, other effects including heavy rain, flooding, winds, and tornados often have significant impacts on Randolph County.

Hurricanes, tropical storms, tropical depressions, and high winds resulted from Dennis, Katrina, Ida, Fay and Ivan have affected Randolph County. The most significant impacts have been related to excessive rainfall, damaging wind, and tornados. Residents suffer loss of power, damage to homes, blocked roadways from associated storm debris, and loss of other crucial utilities. Mobile homes are particularly vulnerable and are impacted more than conventionally built structures. Randolph County has a total of 2,936 mobile homes countywide, 24% of the total housing stock. The greatest concentration of mobile homes in a municipality is in the Town of Wedowee where 23% of the units are mobile homes.

Effects of these storms generally impact the entire county and are not limited to a specific location. The fact that other surrounding counties will have also been affected by the same event only adds to the burden, as utility crews are often overwhelmed by the needs of an entire region or state.

Hurricane Dennis made landfall on July 10, 2005 at the Santa Rosa Sound in Florida, approximately 25 miles from the Florida-Alabama state line. Several trees and power lines were knocked down in association with Tropical Storm Dennis. At least one structural fire was reported due to power lines. Property damages of \$47,000 resulted.

The remnants of Hurricane Katrina moved northward along the Alabama/Mississippi state line. Katrina was still a strong tropical storm as the center passed just west of North Alabama during the evening hours of August 29, 2005. 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. A few trees and powerlines were blown down countywide. Property damages of \$15,000 resulted from Tropical Storm Katrina.

On November 9-11, 2009, the remnants of what was at one time Hurricane Ida, but had weakened into a Tropical Depression, brought very heavy rain and gusty winds to a large

portion of Central Alabama. Sustained winds around Central Alabama maxed out between 20 and 30 mph, with peak wind gusts generally between 30 and 40 mph. These winds blew down a few trees around the area, especially shallow rooted trees where the saturated soil likely played a significant role. Property damages of \$2,000 resulted from Tropical Depression Ida.

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

On September 16, 2004, Randolph County experienced high winds with maximum reported wind gusts up to 65 miles per hour. Hundreds of trees and power lines were knocked down across the county. Many customers were without power and the power was not fully restored in a few places for 2 to 3 days. One home was totally destroyed and others received mainly minor damage. Doppler radar and ground observations indicate as much as 5 inches of rain fell as a result of Ivan. A few homes received minor water damage and one road was washed out. Randolph County reported \$125,000 in property damages.

On April 13, 2009, Randolph County experienced strong winds as an intense atmospheric gravity wave brought a period of high winds to central Alabama late in the evening on April 12, lasting into the early morning hours on April 13. The gravity wave, which formed on the back edge of a large precipitation area, moved into west central Alabama from Mississippi around 9 pm CDT, moved across the middle of the state, and exited the east central counties by 8 am CDT the next morning. As the wave moved through, it produced a 1 to 2 hour long period of strong winds, with frequent gusts above 30 mph, and peak gusts averaging 40 to 50 mph. A larger number of trees were blown down than one may usually expect from these wind speeds, since many trees were weakened by a recent drought, and because the gusty winds lasted for up to two hours. The downed trees caused numerous power outages, and as many as 165,000 customers lost power during the storm. A wind gust to 43 mph was recorded at the EMA office. Several trees were blown down across the county, at least one of which landed on a house. Randolph County reported \$25,000 in property damages.

Randolph County experienced 10 hurricane/tropical storm/tropical depression/high

wind/strong wind events in a 10 year period resulting in a 100% probability that a hurricane/tropical storm event will occur on an annual basis. The total amount of damages for the 10 hurricane/tropical storm/tropical depression/high wind/strong wind events was \$231,000 with 9 hurricane/tropical storm/tropical depression/high wind/strong wind events causing damage resulting in an estimated \$25,667 of expected annual damages from future events. The referenced hurricane/tropical storm/tropical depression/high wind/strong wind events are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a hurricane/tropical storm/tropical depression/high wind/strong wind event; the ranking is minor to major.

Primary Effects of Hurricanes:

1. Wind
 - a. Secondary cause of deaths related to hurricanes
 - b. Continue causing destruction as storm travels miles inland
 - c. Able to completely destroy towns and structures that fall within storm path
 - d. Winds near perimeter of eye of storm are strongest and most intense
 - e. Oftentimes produce tornados
2. Heavy Rains
 - a. Rain levels during hurricanes can easily exceed 15 to 20 inches
 - b. Cause flooding beyond coastal regions

Secondary Effects of Hurricanes:

1. Tornados
 - a. Usually found in right-front quadrant of storm or embedded in rain bands
 - b. Some hurricanes capable of producing multiple twisters
 - c. Usually not accompanied by hail or numerous lightning strikes
 - d. Tornado production can occur for days after the hurricane makes landfall

- e. Can develop at any time of the day or night during landfall of a hurricane
2. Inland Flooding
- a. Statistically responsible for greatest number of fatalities over last 30 years
 - b. Stronger storms not necessarily cause of most flooding; weaker storms that move slowly across the landscape can deposit large amounts of rain, causing significant flooding

IX. Sinkhole/Expansive Soil

Sinkholes

The HMPC remains in agreement that sinkholes and expansive soils do not necessitate profiling as was the case in the previous plan update; however since one sinkhole occurred as a possible result of a water leak, this plan update will discuss possible causes of such events. Land subsidence, the loss of surface elevation due to the removal of subsurface support, ranges from broad, regional lowering of the land surface to localized collapse. The primary cause of land subsidence is a direct result of human activity often in areas of karsts geology. The human activities that may trigger subsidence include mining and the withdrawal of groundwater and/or petroleum. The most dramatic form of subsidence is the collapse of superficial material into underground voids.

A sinkhole is a natural depression or hole in the surface topography caused by the removal of soil or bedrock, often both, by water. They may be formed gradually or suddenly. Sinkholes are common where the rock below the land surface is limestone, carbonate rock, salt beds, or rocks that can naturally be dissolved by circulating ground water. As the rock dissolves, spaces and caverns develop underground. These sinkholes can be dramatic because the surface land usually stays intact until there is not enough support. Then a sudden collapse of the land surface can occur.

There are three types of potential problems associated with the existence or formation of sinkholes: subsidence, flooding, and pollution. The term subsidence commonly involves a gradual sinking, but it also refers to an instantaneous or catastrophic collapse. In Randolph County, sinkholes are common where the rock below the land surface is limestone, dolomite, or salt that can naturally be dissolved by ground water. As the rock dissolves, cavities and caverns develop underground. Sinkholes may be dramatic if the land stays intact for some time until the underground spaces just get too big and a sudden collapse of the land surface occurs.

The change in the local environment affecting the soil mass causing subsidence and sinkholes collapse is called “triggering mechanism.” Water, is the main factor affecting the local environment that causes subsidence. The main triggering mechanisms for subsidence are:

- Water level decline,
- Changes in groundwater flow,
- Increased loading, and
- Deterioration (abandoned coalmines).

Water level decline can happen naturally or be human induced. Main factors in water decline are:

- Pumping of water from wells,
- Localized drainage from construction,
- Dewatering, and
- Drought

Changes in the groundwater flow (as indicated in **Figure 4-5**) include an increase in the velocity of groundwater movement, increase in the frequency of water table fluctuations, and increased or reduced recharge. Increased loading causes pressure in the soil leading to failure of underground cavities and spaces. Vibrations caused by an earthquake, vibrating machinery and blasting, can cause structural collapse followed by surface settlement.

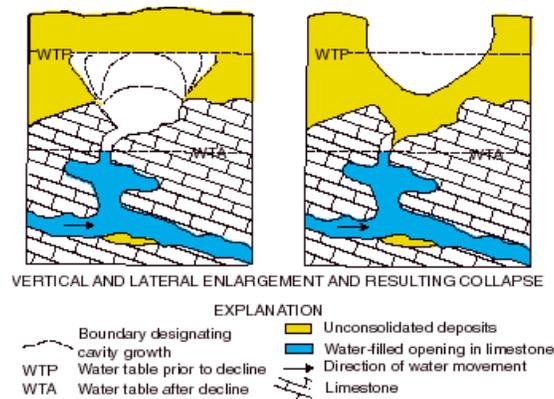


Figure 4-5
Water Level Decline

Source: Alabama Department of Transportation

Natural sinkholes occur where soluble limestone, carbonate rock, salt beds, or rocks can be dissolved by groundwater circulating through them. As the rock dissolves, spaces and

caverns develop underground. The land usually stays intact until the underground spaces become too large to support the ground at the surface. When the ground loses its support it will collapse, forming a sinkhole. Sinkholes can be small or so extreme they consume an automobile or a house. The most damage from sinkholes tends to occur in Florida, Texas, Alabama, Missouri, Kentucky, Tennessee, and Pennsylvania.

Historically, land subsidence or sinkhole events have not been well documented. Randolph County geology has a very low susceptibility to such events; therefore, is at a slight risk for sinkholes. The probability of future occurrences cannot be predicted due to a lack of historical records and detailed geologic studies. As development continues in rural areas of Randolph County it is likely that sinkholes will begin to have a greater impact on communities. When subsidence occurs in developed areas it can have a significant impact on communities including loss of property values, increased insurance costs and potential injuries.

In Randolph County, sinkholes are common where the rock below the land surface is limestone, dolomite, or salt that can naturally be dissolved by ground water. As the rock dissolves, cavities and caverns develop underground. Sinkholes may be dramatic if the land stays intact for some time until the underground spaces just get too big and a sudden collapse of the land surface occurs. Some sinkholes are formed due to the leak in underground storm drains and sewer systems; when they collapse, the damage can be seen for many miles due to the repairs that become necessary.

The probability of future occurrences cannot be predicted due to a lack of historical records and detailed geologic studies. These are random events, which can be influenced by drought conditions.

According to *The Randolph Leader*, the Roanoke Street Department worked on a sinkhole that occurred as a result from a water leak in October 2009 (**Figure 4-6**). The sinkhole expanded during the time the source of the water leak was being located. Citizens were asked to cut back on water usage until the leak was located and corrected. An Alabama Power Company power pole was also threatened by the sinkhole. Cracks in the roadways resulted along the water line which supplied water to a nearby school, all of West Point Street, and the jail/police departments. The street department noted the terra cotta storm water pipe

had collapsed, leaving the four-inch water pipe suspended in air. A hollowed area under the street that could be seen by flashlight was susceptible to caving if vehicles drove over the area. The cut-through roadways were closed until repairs were completed.

Figure 4-6: Photo of Sinkhole in Randolph County



The Randolph Leader (Article by Penny L. Pool)

Randolph County experienced 1 sinkhole/expansive soil events in a 10 year period resulting in a 10% probability that a sinkhole/expansive soil event will occur on an annual basis. The total amount of damages for the 0 sinkhole/expansive soil events was not available; therefore for the purposes of this plan update, we will use the amount of \$0 with \$0 sinkhole/expansive soil events causing damage resulting in an estimated \$0 of expected annual damages from future events. The extent/range of magnitude or strength that could be experienced by Randolph County due to a sinkhole/expansive soil event is minimum to minor based on the lack of historical records and detailed geologic studies.

Primary effects from sinkholes in Randolph County would include:

1. Property damage
2. Impassable roads

3. Sediment erosion
4. Infrastructure damage

Hazardous results from sinkholes in Randolph County would include:

1. When they are formed on land, they can change the general topography of the land area and divert streams of underground water.
2. If they form suddenly in areas with heavy population, they can cause a lot of damage to human life and property, as all in the area of the sinkhole may be lost.
3. They can be dangerous to the foundations of buildings. Total buildings could be lost.
4. Toxic chemicals beneath the earth can come up and may pollute the groundwater.

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X. Earthquake

The HMPC remains in agreement that earthquakes do not necessitate profiling as was the case in the previous plan update; however since earthquakes have been noted during the study period of this plan update, earthquakes will briefly be discussed. An earthquake is a sudden slip on a fault and the resulting ground shaking and radiated seismic energy caused by an abrupt release of accumulated strain in the tectonic plates that comprise the earth's crust. These rigid plates, known as tectonic plates, are some 50 to 60 miles in thickness and move slowly and continuously over the earth's interior. The plates meet along their edges, where they move away, past or under each other at rates varying from less than a fraction of an inch up to five inches per year. While this sounds small, at a rate of two inches per year, a distance of 30 miles would be covered in approximately one million years (FEMA, 1997).

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

The vibration or shaking of the ground during an earthquake is described by ground motion. The strength of ground motion generally increases with the amount of energy released and decreases with distance from the fault or epicenter of the earthquake. Ground motion causes waves in the earth's interior, also known as seismic waves, and along the earth's surface, known as surface waves. The following are the two kinds of seismic waves:

- P (primary) waves are longitudinal or compression waves similar in character to sound waves that cause back-and-forth oscillation along the direction of travel (vertical motion), with particle motion in the same direction as wave travel. They move through the earth at approximately 15,000 MPH.
- S (secondary) waves, also known as shear waves, are slower than P waves and cause structures to vibrate from side-to-side (horizontal motion) due to particle motion at right angles to the direction of wave travel. Unreinforced buildings are

more easily damaged by S waves. There are also two kinds of surface waves, Raleigh waves and Love waves. These waves travel more slowly and typically are significantly less damaging than seismic waves.

Seismic activity is commonly described in terms of magnitude and intensity.

Magnitude (M) describes the total energy released and intensity (I) subjectively describes the effects at a particular location. Although an earthquake has only one magnitude, its intensity varies by location.

Magnitude is the measure of the amplitude of the seismic wave and is expressed by the Richter Scale. The Richter Scale is a logarithmic measurement, where an increase in the scale by one whole number represents a tenfold increase in measured amplitude of the earthquake. Intensity is a measure of the strength of the shock at a particular location and is expressed by the Modified Mercalli Intensity (MMI) scale.

Another way of expressing an earthquake's strength is to compare its acceleration to the normal acceleration due to gravity. If an object is dropped while standing on the surface of the earth (ignoring wind resistance), it will fall towards earth and accelerate faster and faster until reaching terminal velocity. The acceleration due to gravity is often called "g" and is equal to 9.8 meters per second squared (980 cm/sec/sec). This means that every second something falls towards earth, its velocity increases by 9.8 meters per second. Peak ground acceleration (PGA) measures the rate of change of motion relative to the rate of acceleration due to gravity. For example, acceleration of the ground surface of 244 cm/sec/sec equals a PGA of 25.0 percent. It is possible to approximate the relationship between PGA, the Richter scale, and the MMI, as shown in **Table 4-25**. The relationships are, at best, approximate, and also depend upon such specifics as the distance from the epicenter and depth of the epicenter. An earthquake with 10.0 percent PGA would roughly correspond to an MMI intensity of V or VI, described as being felt by everyone, overturning unstable objects, or moving heavy furniture.

Table 4-25: Earthquake PGA, Magnitude and Intensity Comparison

PGA (%g)	Magnitude (Richter)	Intensity (MMI)	Description (MMI)
<0.17 – 1.4	1.0 – 3.0	I	Not felt except by a very few under especially favorable conditions.
0.17 – 1.4	3.0 – 3.9	II - III	II. Felt only by a few persons at rest, especially on upper floors of buildings. III. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
1.4 – 9.2	4.0 – 4.9	IV - V	IV. Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rock noticeably. V. Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
9.2 - 34	5.0 – 5.9	VI – VII	VI. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. VII. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
34 – 124	6.0 – 6.9	VIII - IX	VIII. Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
>124	7.0 and higher	VIII or Higher	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. XI. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. XII. Damage total. Lines of sight and level are distorted. Objects thrown into the air.

(Source: <http://earthquake.usgs.gov>)

Earthquake-related ground failure, due to liquefaction, is a common potential hazard from strong earthquakes in the central and eastern United States. Liquefaction occurs when seismic waves pass through saturated granular soil, distorting its granular structure, and causing some of the empty spaces between granules to collapse. Pore-water pressure may also increase sufficiently to cause the soil to behave like a fluid (rather than a soil) for a brief period and causing deformations. Liquefaction causes lateral spreads (horizontal movement commonly 10-15 feet, but up to 100 feet), flow failures (massive flows of soil, typically hundreds of feet, but up to 12 miles), and loss of bearing strength (soil deformations causing structures to settle or tip). Sands blows were common following major New Madrid earthquakes in the central United States.

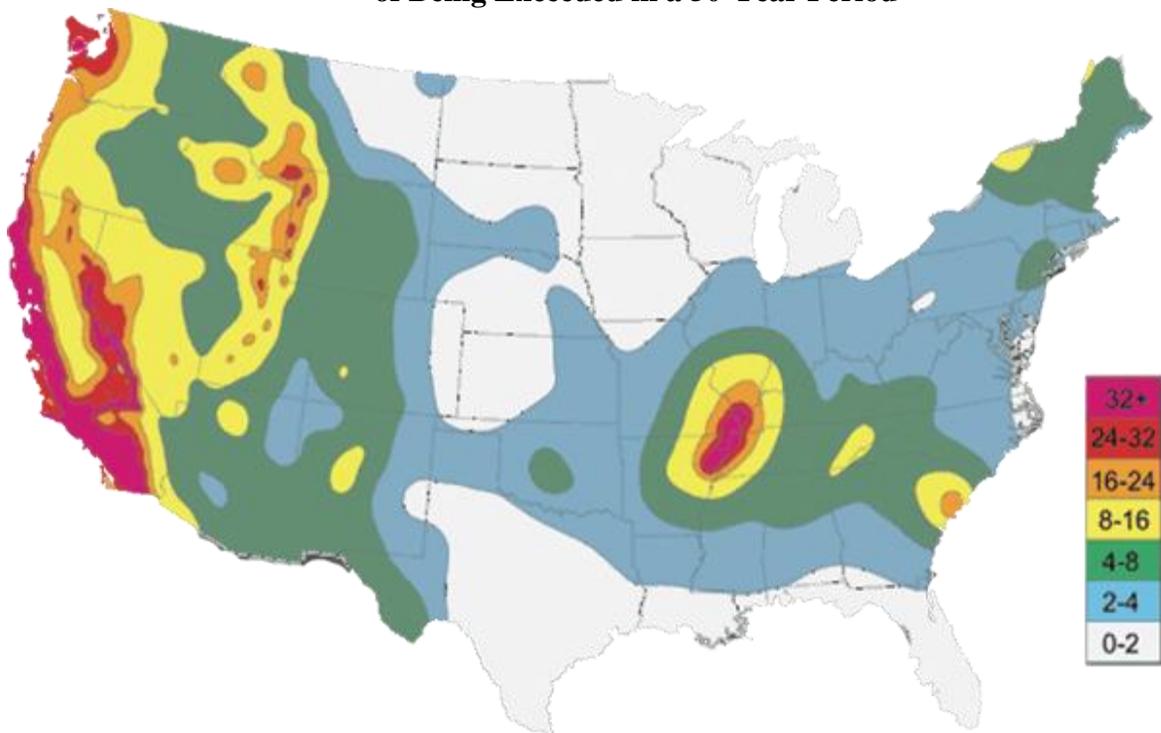
The hazards associated with earthquakes include anything that can affect the lives of humans, including surface faulting, ground shaking, landslides, liquefaction, tectonic deformation, tsunamis, and seiches. Earthquake risk is defined as the probability of damage and loss that would result if an earthquake caused by a particular fault were to occur. Losses depend on several factors including the nature of building construction, population density, topography and soil conditions, and distance from the epicenter.

Interestingly, an earthquake's magnitude can be a poor indicator of hazard impact because the duration of ground shaking, and resulting increased damages, is not factored into the magnitude concept. The majority of losses are due to collapsing houses and other structures, the most vulnerable being those of unreinforced masonry and adobe. Structures built with more flexible materials such as steel framing are preferred. Wood frame construction, which constitutes a high percentage of homes in the United States, also tends to flex rather than collapse but is more susceptible to fire. Building codes have historically been utilized to address construction standards to mitigate damages for earthquakes and other hazards. However, older structures, non-compliance, and incomplete knowledge of needed measures remain a problem. In order to reduce losses to lives and property, wider adoption of improved construction methods for both residential and important critical facilities such as hospitals, schools, dams, power, water, and sewer utilities is needed.

Earthquakes occurring in Randolph County are predominantly low magnitude events.

However, there is growing concern that a high magnitude event is inevitable and earthquakes are becoming a much larger concern to the county. GSA is currently working to better define seismic hazards and impacts throughout the county. **Figure 4-7** is based on earthquake occurrences and their shaking extent relative to the epicenter. Colors show levels of horizontal shaking having a 1-in-10 chance of being exceeded in a 50-year period. Randolph County has a 2-4% chance of experiencing an earthquake; however, there are insufficient historical records and geologic studies to predict the future probability of an earthquake occurring in Randolph County. The risk of a significant, damage-causing earthquake in Randolph County is low to moderate.

Figure 4-7: Horizontal Shaking Having a 1-in-10 Chance of Being Exceeded in a 50-Year Period



(Source: Geological Survey of Alabama, 2010)

The Geological Survey of Alabama, in conjunction with the Alabama Emergency Management Agency, developed basement fault and liquefaction susceptibility maps for

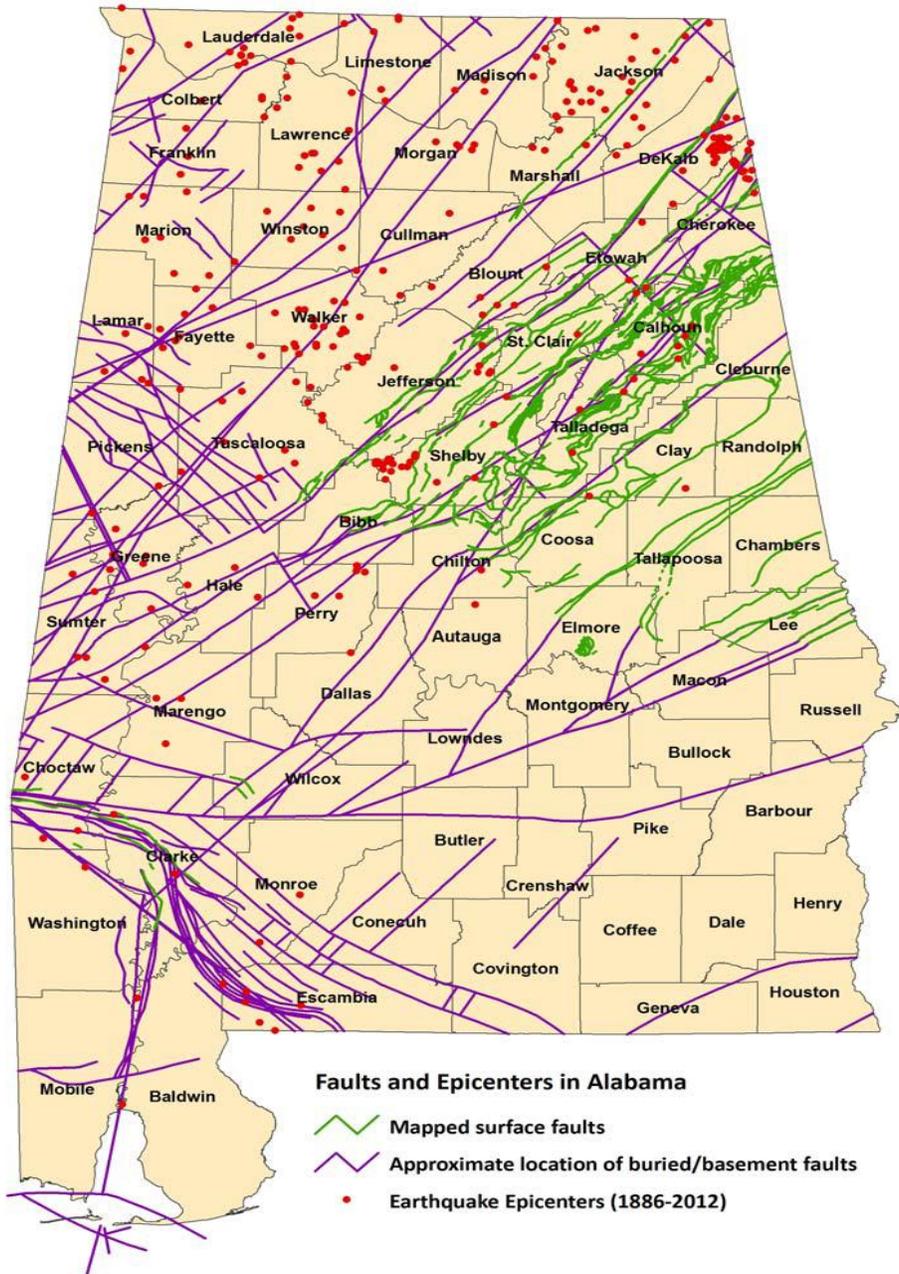
Alabama. The basement fault mapping project was an effort to approximate locations of buried faults. Some buried faults are considered active based on earthquake epicenters in the vicinity of the faults. The liquefaction mapping project was conducted to help identify areas that are most at risk to liquefaction during a moderate to strong magnitude earthquake.

Liquefaction is a phenomenon that can occur during an earthquake when seismic waves pass through saturated unconsolidated material causing sediment particles to move in relation to each other. Liquefaction can be especially damaging to structures built on thick sediments, as in areas where the sediments are saturated with water such as in floodplains (**Figure 4-9**).

(Source: Alabama Hazard Mitigation Plan)

According to City-Data.com, the Randolph County area has an earthquake history that is significantly below the State of Alabama's average and 98% less than the U. S.'s average. On April 29, 2003 at 8:59 a.m., a magnitude 4.9 (4.4 MB, 4.6 MW, 4.9 LG, Depth: 12.2 mi, Class: Light, Intensity: IV - V) earthquake occurred 85.8 miles away from the county's center. On August 19, 2004 at 11:51 p.m. a magnitude 3.6 (3.6 MW, 3.5 LG, Depth: 3.1 mi, Class: Light, Intensity: II - III) earthquake occurred 88.2 miles away from the county's center. On May 9, 2004 at 8:56 a.m., a magnitude 3.3 (3.3 LG, Depth: 3.1 mi) earthquake occurred 87.6 miles away from the county's center.

Figure 4-8: Faults and Epicenters in Alabama



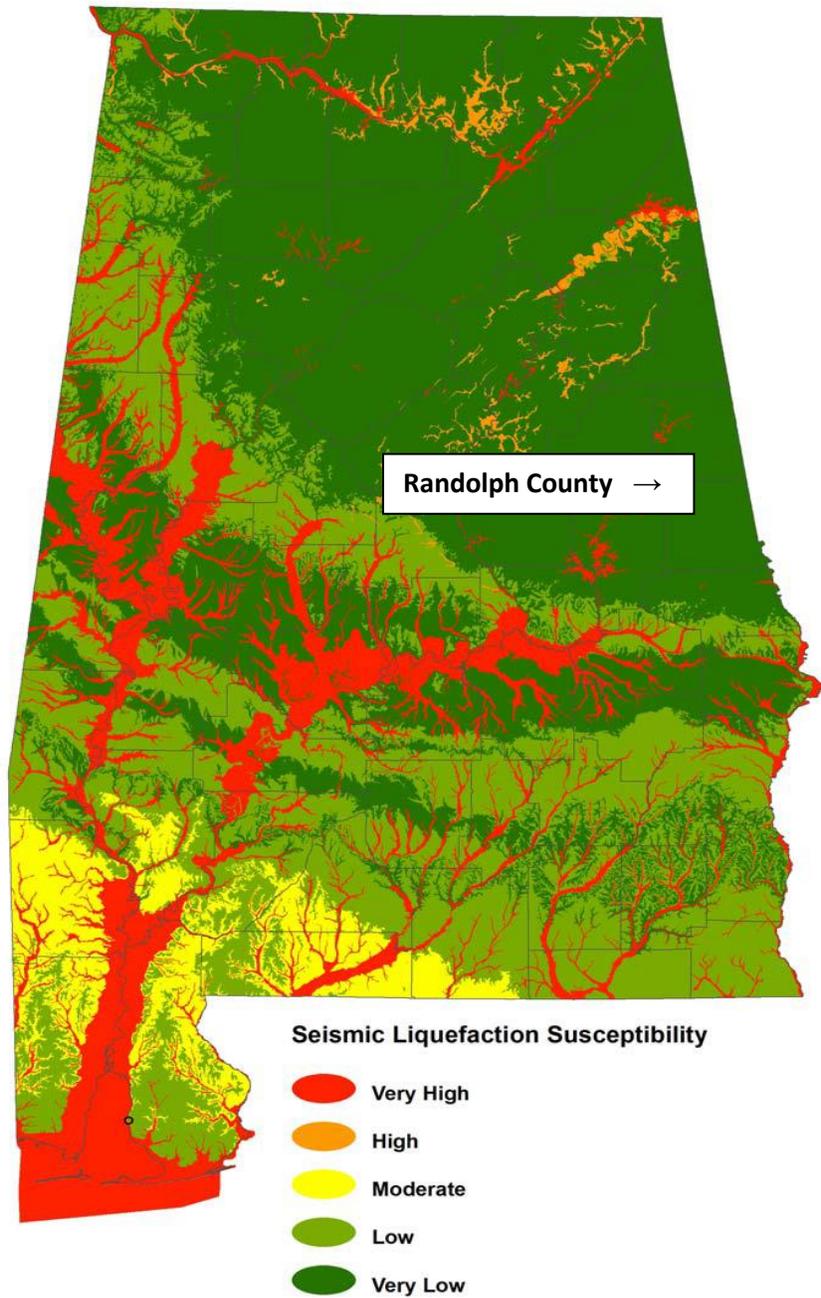
**Historical Earthquake Epicenters, Mapped Surface Faults, and
Approximate Locations of Buried Faults in the Alabama**

Surface maps are based on the 1:250,000-scale digital geologic map of Alabama (GSA, 2006). Buried faults are based on the faults approximated in the basement fault mapping project (GSA, 2008). Epicenters are based on historical data from seismic records (2012).

(Source: Geological Survey of Alabama, 2010; Alabama Hazard Mitigation Plan)

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Figure 4-9: Seismic Liquefaction Susceptibility



Susceptibility to Liquefaction During a Moderate to Strong Magnitude Earthquake
(Source: Geological Survey of Alabama, 2006; Alabama Hazard Mitigation Plan)

In the eastern United States strong earthquakes occur less frequently than other parts of the country; however, this does not mean that the damage in this area would be any less catastrophic should a powerful quake occur. There are two important reasons for this. The first is that the type of rock present in the eastern part of the country transmits seismic waves more effectively. This in turn creates better transmission of earthquake energy and results in higher damage over a wider area. Second, because buildings and other structures in the eastern United States have not been designed to withstand severe earth shaking, they will sustain more damage.

Randolph County experienced 3 earthquake events in a 10 year period resulting in a 30% probability that an earthquake event will occur on an annual basis. The total amount of damages for the earthquake events was not available; therefore for the purposes of this plan update, we will use the amount of \$0 with \$0 earthquake events causing damage resulting in an estimated \$0 of expected annual damages from future events. The extent/range of magnitude or strength that could be experienced by Randolph County due to an earthquake event is minimum to minor based on the lack of historical records and detailed geologic studies.

Primary effects from earthquake in Randolph County would include:

1. Property Damage
2. Underground infrastructure damage
3. Building collapse
4. Trigger for other natural disasters

Hazardous results from earthquake in Randolph County would include:

1. Shaking can cause cracking of roads, bridges, or buildings, which may also lead to collapse.
2. Pipes and wiring underground could be severely damaged due to the movement of the earth. This would result in interruption of service and long periods of repair before lines were serviceable again.
3. Buildings in Randolph County are not built to meet the rigors of earthquakes; collapsing structures could kill or injure occupants.

4. Earthquakes can create other disasters such as landslides, flooding, and sinkholes.
5. Shifting of underlying soil and breaching of dams are examples of possible results from an earthquake.

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XI. Wildfire

Randolph County is at a slight to moderate risk of a wildfire. A wildfire is an uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures. They often begin unnoticed, spread quickly, and are usually signaled by dense smoke that may fill the area for miles around. Wildfires can be human-caused through acts such as arson or campfires, or can be caused by natural events such as lightning. Wildfires can be categorized into 3 types:

1. **Wildland fires** occur in very rural areas and are fueled primarily by natural vegetation. In Randolph County, the vast majority of these fires occur on privately owned land. Wildland fire suppression is the responsibility of the State of Alabama, through the Alabama Forestry Commission.
2. **Interface fires** occur in areas where homes or other structures are endangered by the wildfires. The fires are fueled by both natural vegetation and man-made structures. These are often referred to as Wildland Urban Interface fires and form the majority of wildfires in Randolph County. Interface fire suppression is the responsibility of the Alabama Forestry Commission, working closely with local volunteer fire departments.
3. **Firestorms** occur during extreme weather (e.g., high temperatures, low humidity, and high winds) with such intensity that fire suppression is virtually impossible. These events typically burn until the conditions change or the fuel is exhausted.

The vast majority of wild land fires occur on privately owned lands. Additionally, the majority of the fires occur in areas where homes or structures are endangered. These areas are known as the wild land urban interface and are defined as areas where development meets wild land vegetation, both of which provide fuel for fires. The wild land urban interface areas have increased significantly throughout the county, and now face the risk of major losses from wildfires. In Randolph County, most wild land urban interface areas are considered “intermixed.”

Instead of having large forest areas surrounding an isolated town, Randolph County contains many scattered homes and farms spread across the forest areas. The following two factors contribute significantly to wildfire behavior in Alabama:

1. **Fuel:** The type of fuel and the fuel loading (measured in tons of vegetative matter per acre) have a direct impact on fire behavior. Fuel types vary from light fuels (grass) to moderate fuels (Southern Rough) to heavy fuels (slash). The type of fuel and the fuel load determines the potential intensity of the wildfire and how much effort must be expended to contain and control it.
2. **Weather:** The most variable factor affecting wildfire behavior is weather. Important weather variables are precipitation, humidity, and wind. Weather events ranging in scale from localized thunderstorms to large cold fronts can have major effects on wildfire occurrence and behavior. Extreme weather, such as extended drought and low humidity can lead to extreme wildfire activity.

In addition to affecting people, wildfires may severely impact livestock inflicting a severe economic impact on farmers. Timber loss to fire creates an economic loss to both the private landowner and the county's economy. Wildfires in Randolph County generally are moderate in intensity, resulting in destruction of undergrowth and some timber. The soil surface layer of the forest recovers quickly, minimizing erosion and water quality impacts. The entire Randolph County is vulnerable to wildfires.

The frequency and strength of wildfires is dependent on weather and on human activity. Nearly all wildfires in Randolph County are human caused (only a small percent are caused by lightning), with arson and careless debris burning being the major causes of wildfires. If not promptly controlled, wildfires may grow into an emergency or disaster. Even small fires can threaten lives, damage forest resources and destroy structures. **Table 4-26** shows the number of fires and acres burned during the period 2010-2013, as recorded by the Alabama Forestry Commission. Randolph County had a total of 96 fires during this 3 year period, affecting a total of 923.65 acres.

Wildfires are responsible for burning thousands of acres of land across the United States each year. They are large, fast moving, disastrous fires that occur in the wilderness or rural areas. These fires are uncontrolled and in dry conditions can spread rapidly through the surrounding vegetation and structures. Randolph County is susceptible to wild/forest fires especially during times of drought. Randolph County has a total of 280,492 acres of forestland.

The total acres are made up of 128,034 softwoods, 28,281 oak-pine, and 124,177 hardwoods.
 (Source: *Alabama Forestry Commission – Forest Resource Report 2012*)

Randolph County is located in an area where the current fire danger conditions are low to moderate, according to the U. S. Forestry Service.

Table 4-26: Wildfires in Randolph County 2010-2013					
County	Total # of Fires	Average # of Fires	Total Acres Burned	Average Acres Burned	Average Fire Size
Randolph	96	32	923.65	307.88	9.62

Source: Alabama Forestry Commission

Wildfires are an ongoing threat to both rural Randolph County and wild land urban interface communities at risk. As with most natural hazards, wildfires are strongly influenced by weather phenomena, although their risk and impacts are also related to other factors such as the number of structures that are near forested areas, and so forth. Wildfire probability can be expected to remain relatively constant over the long run, assuming that weather patterns do not change significantly.

Randolph County experienced 96 wildfire events in a 3 year period resulting in a greater than 100% probability that a wildfire event will occur on an annual basis. The total amount of acres burned for the 96 wildfire events was 923.65 resulting in an estimated 9.62 acres burned per wildfire event. Based upon the average cost of an acre in Randolph County, the cost of the average fire size is 9.62 acres equaling \$18,278 per fire. The extent/range of magnitude or strength that could be experienced by Randolph County due to a wildfire event is minimum to minor.

Primary effects from wildfire in Randolph County would include:

1. Loss of property
2. Loss of livestock
3. Destruction of wilderness
4. Crop destruction

Hazardous results from significant wildfire in Randolph County would include:

1. Widespread fire destroys everything flammable, leaving people homeless and businesses destroyed.
2. Fenced in livestock have no way of escaping the path of a wildfire and most are lost due to smoke inhalation.
3. Most wildfires actually help forests grow because they rid the forest of underbrush, but exceptionally hot fires that have a long duration destroy entire forests.
4. An entire year's crop can be lost by burning through all vegetation.

XII. Dam Failures

A dam is barriers constructed across a watercourse in order to store, control, or divert water. Dams are usually constructed of earth, rock, concrete, or mine tailings. The water impounded behind a dam is referred to as the reservoir and is measured in acre-feet, with one acre-foot being the volume of water that covers one acre of land to a depth of one foot. Due to topography, even a small dam may have a reservoir containing many acre-feet of water. A dam failure is the collapse, breach, or other failure of a dam that causes downstream flooding. Dam failures may result from natural events, human-caused events, or a combination thereof. Due to the lack of advance warning, failures resulting from natural events, such as hurricanes, earthquakes, or landslides, may be particularly severe. Prolonged rainfall that produces flooding is the most common cause of dam failure (FEMA, 1997).

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

Dam failures may result from one or more the following:

- Prolonged periods of rainfall and flooding (the cause of most failures)
- Inadequate spillway capacity which causes excess overtopping flows
- Internal erosion erosions due to embankment or foundation leakage or piping
- Improper maintenance
- Improper design
- Negligent operation
- Failure of upstream dams
- Landslides into reservoirs
- High winds
- Earthquakes

Dam failures are potentially the worst flood events. A dam failure is usually the result of neglect, poor design, or structural damage caused by a major event such as an earthquake. Historical records of dam/levee failures for Randolph County are not available. When a dam

fails, a large quantity of water is suddenly released downstream, destroying anything in its path. The area impacted by the water emitted by dam failure would encounter the same risks as those in a flood zone during periods of flooding. The area directly affected by the water released during a dam failure is not county wide. The risks associated with dam/levee failures are the same as those risks associated with flooding. There have been no significant dam or levee failures reported in Randolph County during 2003 - 2013.

Alabama, including Randolph County, has no dam safety program and legislation. Individuals from Natural Resources, the Catfish Farmers Federation, Alabama Power Company and several other agencies have formed a committee to promote state dam safety legislation. A draft legislative instrument was written, and the Dam Safety initiative has been transferred to the Alabama Department of Economic Affairs. The Alabama Office of Water Resources is supporting the establishment of an Alabama Dam Security and Safety Program. The legislation to establish this program has been under development for several years, but was reemphasized in 2002 when OWR assumed overall management of dam safety and National Flood Insurance Program initiatives from the AEMA down to the local NFIP Coordinator. Dam safety has been an ongoing hazard mitigation issue in the State of Alabama, especially for small dams that are privately owned and poorly maintained. No state law currently exists to regulate any private dams or the construction of new private dams, nor do private dams require federal licenses or inspections. There have been several attempts in the State of Alabama to pass legislation that would require inspection of dams on bodies of water over 50 acre-feet or dams higher than 25 feet. Enactment has been hampered by the opposition of agricultural interest groups and insurance companies. Once established, the program will provide an up-to-date inventory of dams in Randolph County. A full inventory of dams will help to benefit public safety and emergency response operations in the event of a natural or other disaster. It will also provide for the inspection and permitting certification of certain dams in order to protect the citizens of Alabama by reducing the risk of failure of such dams.

The probability of future occurrences cannot be characterized on a countywide basis because of the lack of information available. The overall area affected is low and impacts are localized. This rating is intended only for general comparison to other hazards that are being

considered.

According to HAZUS-MH 2011, Randolph County has 31 High Density Polyethylene (HPDE - Earth) Dams and 1 HPDG (Concrete Gravity) dam. The one HPDG (R. L. Harris Dam) is considered the only high hazard dam in the county. A high hazard dam is one where failure or mis-operation will probably cause loss of human life. The High Pine Creek Watershed Dam No. 2, High Pine Creek Watershed Dam No. 6, and the College Lake Dam are considered significant hazard dams. A significant hazard dam is one where failure or mis-operation will probably result in no loss of human life, but can cause economic loss, environmental damage, and disruption of lifeline facilities, or can impact other concerns such as agricultural or infrastructural. All other dams are considered low hazard dams. A low hazard dam is one where failure or mis-operation will probably result in no loss of human life and low economic and/or environmental losses – losses are principally limited to the owner’s property. Classifications are assigned to a dam depending upon the urban development directly downstream of the dam and whether or not failure would result in serious economic loss. The classification is not an indication of the quality of the dams’ construction. In the event of a flood or significant earthquake in Randolph County, the possibility for an emergency situation could exist at the high hazard and significant hazard dams. The RCEMA is prepared to coordinate efforts if an event arises at these dams. No historical records are available of dam/levee failures in Randolph County. When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path. The area impacted by the water emitted by dam failure would encounter the same risks as those in a flood zone during periods of flooding. The area directly affected by the water released during a dam failure is not county wide. **Table 4-27** lists dam locations in Randolph County.

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Table 4-27: Randolph County Dams

Dam Name	NID ID	River	Dam Class	Nearest Jurisdiction	Year Completed	Hazard Classification	Latitude	Longitude
Frost	AL000345	TR-Hutton Creek	HPDE	Wadley	1960	Low	33.129999	-85.59667
Burns No. 2	AL000381	TR-Wedowee Creek	HPDE	Wedowee	1961	Low	33.305	-85.44
Wedowee Club Lake	AL000382	TR-Wildcat Creek	HPDE	Malone	1942	Low	33.28333	-85.491669
Moore	AL000510	Wedowee Creek	HPDE	Omaha	1964	Low	33.35	-85.309999
Gray	AL000511	TR-Pineywood Creek	HPDE	Foster Crossroads	1975	Low	33.478329	-85.53
Boyd	AL000638	TR-Pineywood Creek	HPDE	Foster Crossroads	1960	Low	33.424999	-85.546669
Nelson	AL000683	TR-Mud Creek	HPDE	Rockdale	1960	Low	33.401669	-85.49667
Clegg and Pearson	AL000685	TR-High Pine Creek	HPDE	Abanda	1958	Low	33.114999	-85.501669
Lake Louise	AL000687	Chikasanoxee Creek	HPDE	Double Head	1946	Low	33.116669	-85.534999
Rice	AL000688	TR-Graves Creek	HPDE	Roanoke	1944	Low	33.15667	-85.356669
Higgins	AL000689	Wehaokee Creek	HPDE	Big Springs	1958	Low	33.284999	-85.309999
New Hope	AL000690	TR-Wedowee Creek	HPDE	Wedowee	1964	Low	33.31833	-85.423329
Brady Lake	AL000691	TR-Pinetucky Creek	HPDE	Foster Crossroads	1963	Low	33.456669	-85.534999
Strain	AL000693	TR-Bear Creek	HPDE	Woodland	1958	Low	33.353329	-85.401669

Dam Name	NID ID	River	Dam Class	Nearest Jurisdiction	Year Completed	Hazard Classification	Latitude	Longitude
Concord	AL000694	TR-Highpine Creek	HPDE	Abanda	1945	Low	33.12	-85.504999
Roanoke City Reservoir	AL000695	Jones Creek	HPDE	Roanoke	1955	Low	33.163329	-85.403329
Carpenter	AL000703	TR-Wedowee Creek	HPDE	Wedowee	1973	Low	33.31333	-85.45167
McCain	AL001056	TR-Wedowee Creek	HPDE	Wedowee	1950	Low	33.331669	-85.478329
Transco	AL001057	TR-Beaverdam Creek	HPDE	Wadley	1950	Low	33.138329	-85.504999
Knight	AL001058	TR-Tallapoosa River	HPDE	Wadley	1950	Low	33.15667	-85.561669
Schuessler	AL001059	Wehoakee Creek	HPDE	Wehaokee	1950	Low	33.22167	-85.31833
McManus	AL001060	TR-Green Creek	HPDE	Wedowee	1950	Low	33.263329	-85.424999
R. L. Harris	AL001261	Tallapoosa River	HPDG	Wadley	1983	High	33.25834	-85.616669
Highpine Creek Watershed Dam No. 1	AL001960	TR-Highpine Creek	HPDE	Roanoke	1965	Low	33.208329	-85.341669
Highpine Creek Watershed Dam No. 2	AL001961	Highpine Creek	HPDE	Roanoke	1965	Significant	33.17583	-85.375
Highpine Creek Watershed Dam No. 3	AL001962	Graves	HPDE	Roanoke	1965	Low	33.17583	-85.341669
Highpine Creek Watershed Dam No. 4	AL001963	Jones Creek	HPDE	Roanoke	1961	Low	33.21167	-85.378329

Dam Name	NID ID	River	Dam Class	Nearest Jurisdiction	Year Completed	Hazard Classification	Latitude	Longitude
Highpine Creek Watershed Dam No. 5	AL001964	Griswold Creek	HPDE	Roanoke	1962	Low	33.215	-85.38889
Highpine Creek Watershed Dam No. 6	AL001965	TR-Highpine Creek	HPDE	Roanoke	1961	Significant	33.1875	-85.409719
Highpine Creek Watershed Dam No. 10	AL001966	TR-Red Caty Creek	HPDE	Abanda	1962	Low	33.12	-85.423609
McMurray	AL001967	TR-Highpine Creek	HPDE	Roanoke	1946	Low	33.13944	-85.40278
College Lake	AL001968	Carlisle Branch & Tallapoosa River	HPDE	Wadley	1966	Significant	33.13361	-85.57111

(Source: HAZUS MH 2011)

The probability of future occurrences cannot be characterized on a countywide basis because of the lack of information available. The qualitative probability is rated low because the overall area affected is low and impacts are localized. This rating is intended only for general comparison to other hazards that are being considered. Dam failures are potentially the worst flood events. A dam failure is usually the result of neglect, poor design, or structural damage caused by a major event such as an earthquake.

When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path. The area impacted by the water emitted by dam failure would encounter the same risks as those in a flood zone during periods of flooding. The area directly affected by the water released during a dam failure is not county wide. Historical records of dam/levee failures for Randolph County are not available.

Table 4-28: Randolph County Dams Risk Categories	
Risk Categories	Number of Dams
High - loss of one human life is likely if the dam fails	1
Significant - possible loss of human life and likely significant property or environmental destruction if the dam fails if the dam fails	3
Low	27
Total	31
<i>(Source: HAZUS MH 2.1)</i>	

The risks associated with dam/levee failures are the same as those risks associated with flooding. There have been no significant dam or levee failures reported in Randolph County.

Randolph County experienced 15 flood/flash flood events in a 10 year period resulting in a greater than 100% probability that a flood/flash flood event will occur on an annual basis. The total amount of damages for the 15 flood/flash flood events was \$682,000 with 10 flood/flash flood events causing damage resulting in an estimated \$68,200 of expected annual damages from future events. The referenced flood event(s) are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serves as the extent/range of magnitude or strength that could be experienced by Randolph County due to a flood event; the ranking is minor to major.

Primary effects from Dam failure in Randolph County would include:

1. Loss of life
2. Destruction of property
3. Unregulated water flow to surrounding areas
4. Increased amount of disease and disease-carrying animals in the area

Hazardous results from dam failure in Randolph County would include:

1. Heavy flooding would be a direct result of a dam failure, causing many deaths by injuring and trapping people in structures.
2. Large amounts of water would sweep with it property and severely damage any property that remained in the area.
3. Chemical spills from local factories caused by rushing water would pollute the area and destroy crops and other property.
4. The river would be able to flow naturally once the dam was breached - damaging any structures in the path, as well as interrupting wildlife cycles and hydrologic power supply.
5. There would be increased diseases as a result of the unsanitary conditions.

General Risk

Requirement §201.6(c)(2)(ii) of the FR states that “a description of an overall summary of each hazard and its impact on the community” shall be included in the plan. **Table 4-29** summarizes the risk determinations for Randolph County based upon the events that occurred 2003-2013.

Table 4-29: Summary of Randolph County’s Annual Potential Loss Estimates for Specific Hazards	
Hazard	Total Estimated Risk
Thunderstorms	\$38,372
Lightning	\$31,857
Hail	\$15,750
Tornados	\$50,000
Floods/Flash Floods	\$68,200
Droughts/Extreme Heat	Not available
Winter Storms/Frost Freezes/ Heavy Snows/Ice Storms/Winter Weather/Extreme Cold	\$100,000
Hurricanes/Tropical Storms/ Tropical Depressions/High Winds/Strong Winds	\$25,667
Sinkholes/Expansive Soils	Not available
Earthquakes	Not available
Wildfires	\$18,278
Dam/Levee Failures	Not available

Source: NCDC/NOAA

Table 4-30: Randolph County Vulnerability Summary

Natural Hazards	Roanoke	Wadley	Wedowee	Woodland	Randolph County
Thunderstorm	H	H	H	H	H
Lightning	M	L	M	M	M
Hail	L	M	L	M	M
Tornado	H	H	H	M	H
Flood/Flash Flood	M	H	M	M	M
Drought/Extreme Heat	H	M	M	M	M
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	M	M	M	M	M
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	M	M	M	H	M
Sinkhole/Expansive Soil	L	L	L	L	L
Earthquake	L	L	L	L	L
Wildfire	L	L	L	L	M
Dam/Levee Failure	L	L	L	L	M
<p>KEY: NA – Not Applicable; not a hazard to the jurisdiction L – Low Risk; little damage potential (damage to less than 5% of the jurisdiction) M – Medium Risk; moderate damage potential (damage to 5-10% of jurisdiction, infrequent occurrence) H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)</p>					
<p><i>(Source: Participating Jurisdictions)</i></p>					

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Impacts of Development Trends on Vulnerability

According to the EARPDC, a contributing factor to growth in Randolph County is Lake Wedowee, which attracts Atlanta Metro area retirees and commuters. In addition, Southern Union State Community College (SUSCC) has a campus in Wadley located in Randolph County.

The Alabama College System's industrial training institute, AIDT, provides job-specific training free of charge to new and expanding industries. Alabama's recent influx of new automotive plants has drawn employees away from existing industries. The two-year colleges are offering a federally funded program to train workers to fill jobs vacated by those who found work in the expanding automotive industry. The program provides training and job placement services at 34 sites around the state, concentrating in areas around Alabama's automotive manufacturing plants. Existing industries seeking more workers include carpet, metals, and machinery manufacturers.

Randolph County's occupations in order according to the EARPDC are: Manufacturing; Health Care and Social Assistance; Retail Trade; Accommodation-Food Services; Construction; Other services; Transportation and Warehousing; Professional, Scientific, and Technical Services; Administration and Support; Waste Management and Remediation Services; and Arts, Entertainment, and Recreation.

Development trends, particularly population shifts and land use changes created by major economic development expansions and infrastructure improvements of countywide significance, are important considerations to effective mitigation planning. These trends must be continually monitored and analyzed to keep abreast of changing vulnerabilities of jurisdictions and the increasing exposure of growing populations, new buildings, and enlarged infrastructure to natural hazards. As growth and development patterns change over time, the risks to property damage and lives also change. This section examines the projected growth trends and other impacts of countywide significance that are expected to affect the location and extent of natural hazards vulnerability over time.

Randolph County is mostly a rural county. The county government relies on the East Alabama Regional Planning and Development Commission (EARPDC) for assistance in land

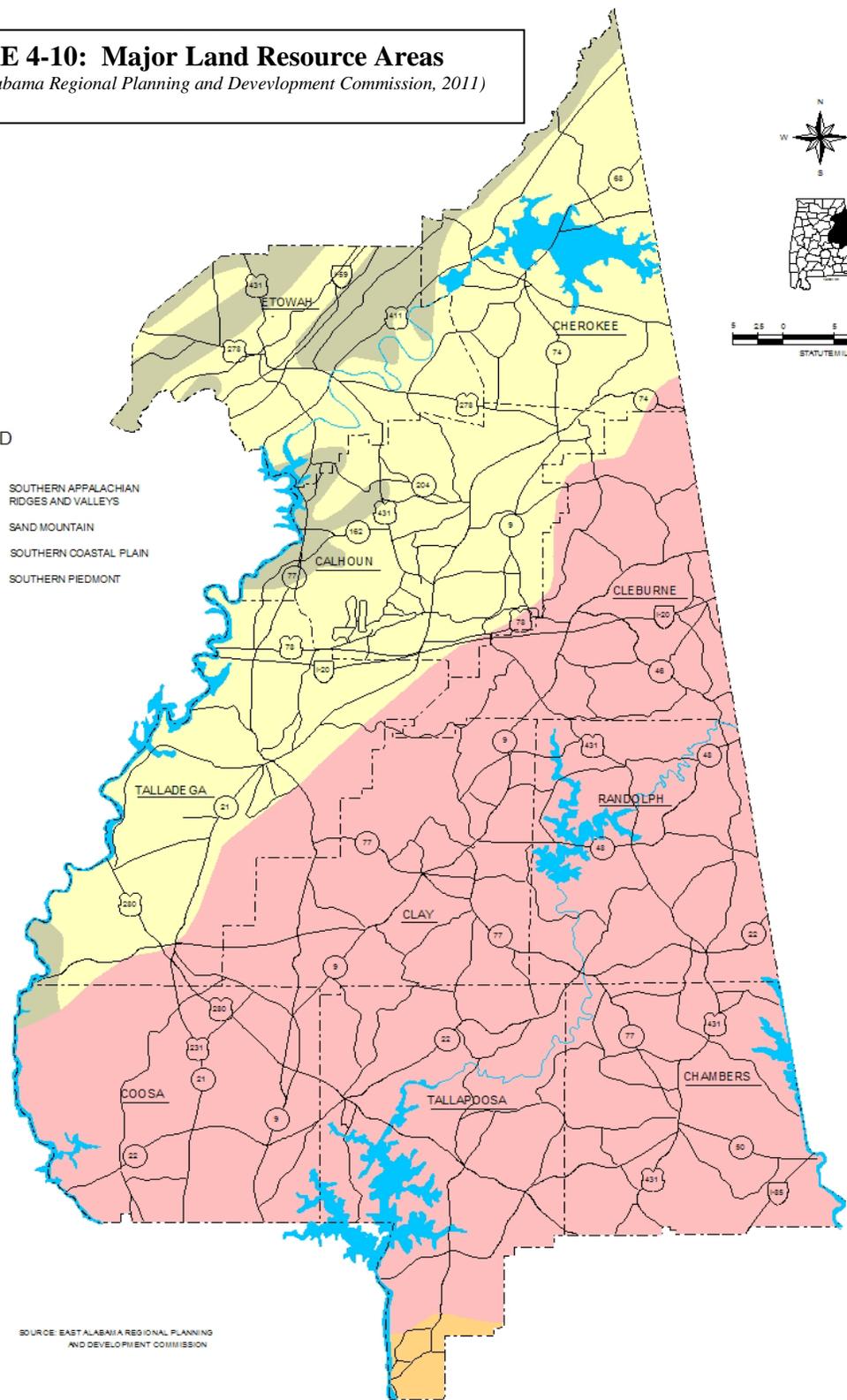
use development and other planning. The following information was taken from the *Comprehensive Economic Development Strategy for the East Alabama Region*, dated September 2011 and prepared by the East Alabama Regional Planning and Development Commission.

Water and Sewer - All four municipalities in Randolph County, Wadley, Wedowee, Roanoke, and Woodland, have a municipal water system. The unincorporated areas of the county are served by the Randolph County Water, Sewer, and Fire Protection District. Sewer systems are located in Wedowee, Roanoke, and Wadley. Economic Development – Industrial Parks in the county are in need of infrastructure and/or other improvements. There are no speculative buildings in the county due to lack of funding. A shortage of local employers has caused many people to seek work in Georgia. Education - Several schools are old and in need of repairing or renovating. Health Care - The county's hospital is substandard. Residents of the county have to drive an hour away from the county to reach the nearest modern medical facilities. Infrastructure/Transportation - The county does not have a four-lane highway. Rail service is limited to the southern portion of county. Water sources are unreliable. Natural Resources - The Alabama-Coosa-Tallapoosa water compact negotiations continue to drag out and could have major ramifications on the area depending upon their outcome. Randolph County residents have the perception that fines on Georgia polluters of the Tallapoosa and Little Tallapoosa Rivers are ineffectual. The county is in need of funding to develop a landfill. Opportunities - Randolph County has rail service and a recently expanded airport. Roanoke, Wadley, and Wedowee and their surrounding areas, have sewer service and industrial parks. Southern Union State Community College and the Randolph-Roanoke Career Technical Center provide workforce training that meets the needs of area employers.

FIGURE 4-10: Major Land Resource Areas
 (Source: East Alabama Regional Planning and Development Commission, 2011)

LEGEND

- SOUTHERN APPALACHIAN RIDGES AND VALLEYS
- SAND MOUNTAIN
- SOUTHERN COASTAL PLAIN
- SOUTHERN FIEDMONT



SOURCE: EAST ALABAMA REGIONAL PLANNING AND DEVELOPMENT COMMISSION

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Table 4-31: CRITICAL FACILITIES – RANDOLPH COUNTY
(Source: HAZUS MH 2.1 and Local Jurisdiction)

FACILITY TYPE	REPLACEMENT VALUE
Roanoke Municipal Airport	\$10,651,000
Wedowee Hospital	\$9,253,800
Randolph County EMA, Main Street, Wedowee	\$900,000
Morrison Crossroads VFD, Newell	\$1,260,000
Tin Shop VFD, Roanoke	\$1,260,000
Bethel East VFD, Woodland	\$1,260,000
Woodland VFD, Woodland	\$1,260,000
New Hope VFD, Woodland	\$1,260,000
Wedowee FD, Wedowee	\$1,260,000
East Randolph VFD, Roanoke	\$1,260,000
Roanoke FD, Roanoke	\$1,260,000
Corinth VFD, Wadley	\$1,260,000
Rock Mills VFD, Roanoke	\$1,260,000
Dickert VFD	\$1,260,000
Wadley VFD	\$1,260,000
Rock Stand VFD	\$1,260,000
A & M VFD	\$1,260,000
Auslins Chapel VFD	\$1,260,000
Fosters Crossroads VFD	\$1,260,000
Newell VFD	\$1,260,000
Randolph County Sheriff's Office, Wedowee	\$1,260,000
Hero K-9	\$1,260,000
East Alabama Christian Academy, Roanoke	\$288,210
New Hope School, Wedowee	\$393,010
Faith Christian Academy, Roanoke	\$628,810
Woodland High School, Woodland	\$14,316,760
Randolph County High School, Wedowee	\$9,918,800
Wedowee Middle School, Wedowee	\$2,178,390
Wedowee Elementary School	\$2,178,390
Randolph-Roanoke Career Technology Center, Wedowee	\$13,467,120
Knight Enloe Elementary School, Roanoke	\$6,111,670
Rock Mills Junior High School, Roanoke	\$1,674,970
Handley High School, Roanoke	\$5,318,720
Handley Middle School, Roanoke	\$8,176,460
Wadley High School, Wadley	\$5,082,920
Total	\$113,219,030

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Table 4-32: Critical Roadways Vulnerable to Flooding

CRITICAL ROADWAYS		
NAME	TYPE	FLOOD TYPE
 U.S. Highway 431	Major Highway	
 State Route 22	Major Highway	
 State Route 48	Major Highway	
 State Route 77	Major Highway	
County Road 635	County Travel	25-year flooding events
County Road 624	County Travel	25-year flooding events
County Road 905	County Travel	25-year flooding events
County Road 898	County Travel	25-year flooding events
County Road 435	County Travel	25-year flooding events
County Road 242	County Travel	25-year flooding events
County Road 489	County Travel	25-year flooding events
County Road 67	County Travel	25-year flooding events
County Road 45	County Travel	25-year flooding events

(Source: Local Jurisdictions)

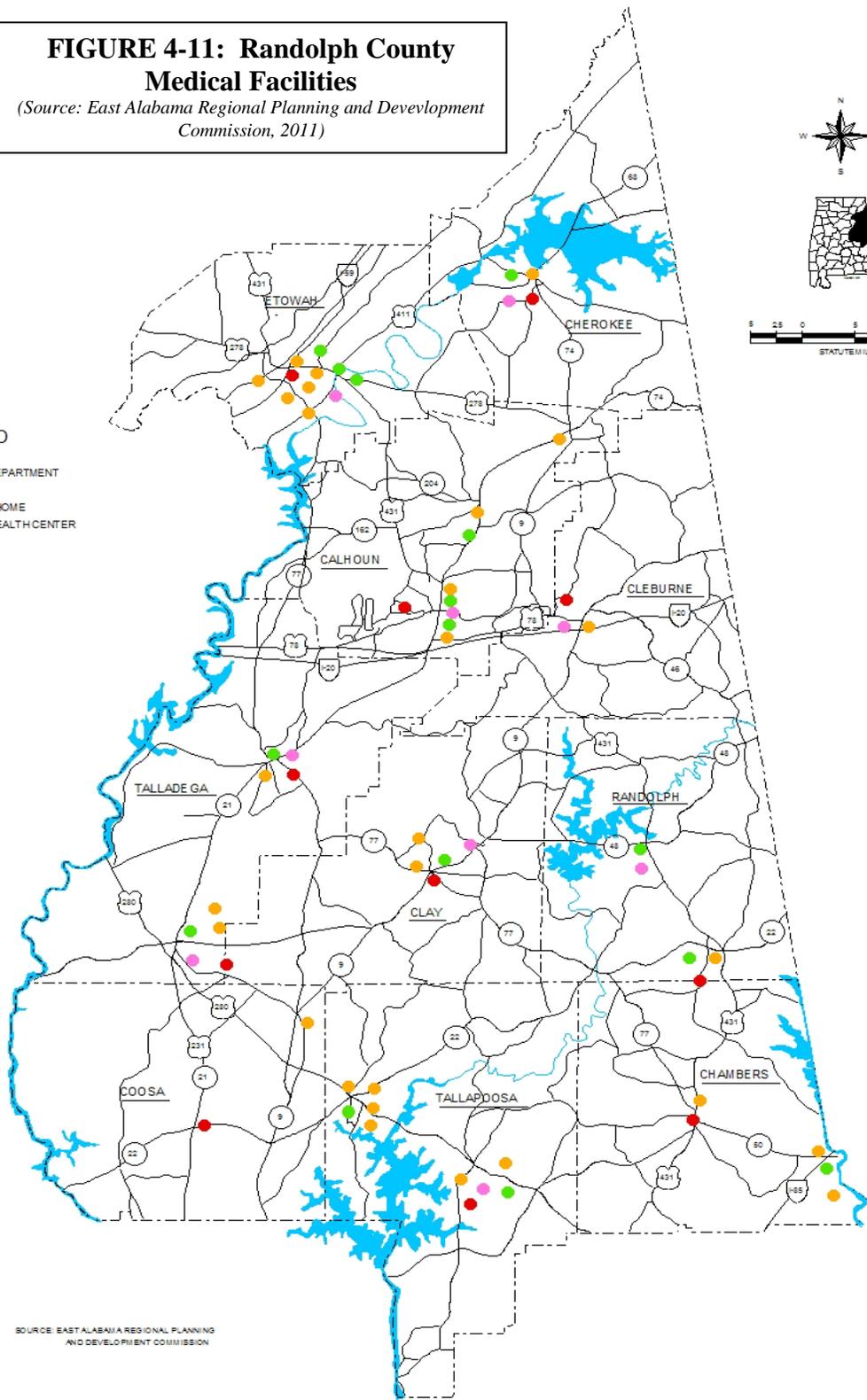
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**FIGURE 4-11: Randolph County
Medical Facilities**

(Source: East Alabama Regional Planning and Development Commission, 2011)

LEGEND

- HEALTH DEPARTMENT
- HOSPITAL
- NURSING HOME
- MENTAL HEALTHCENTER



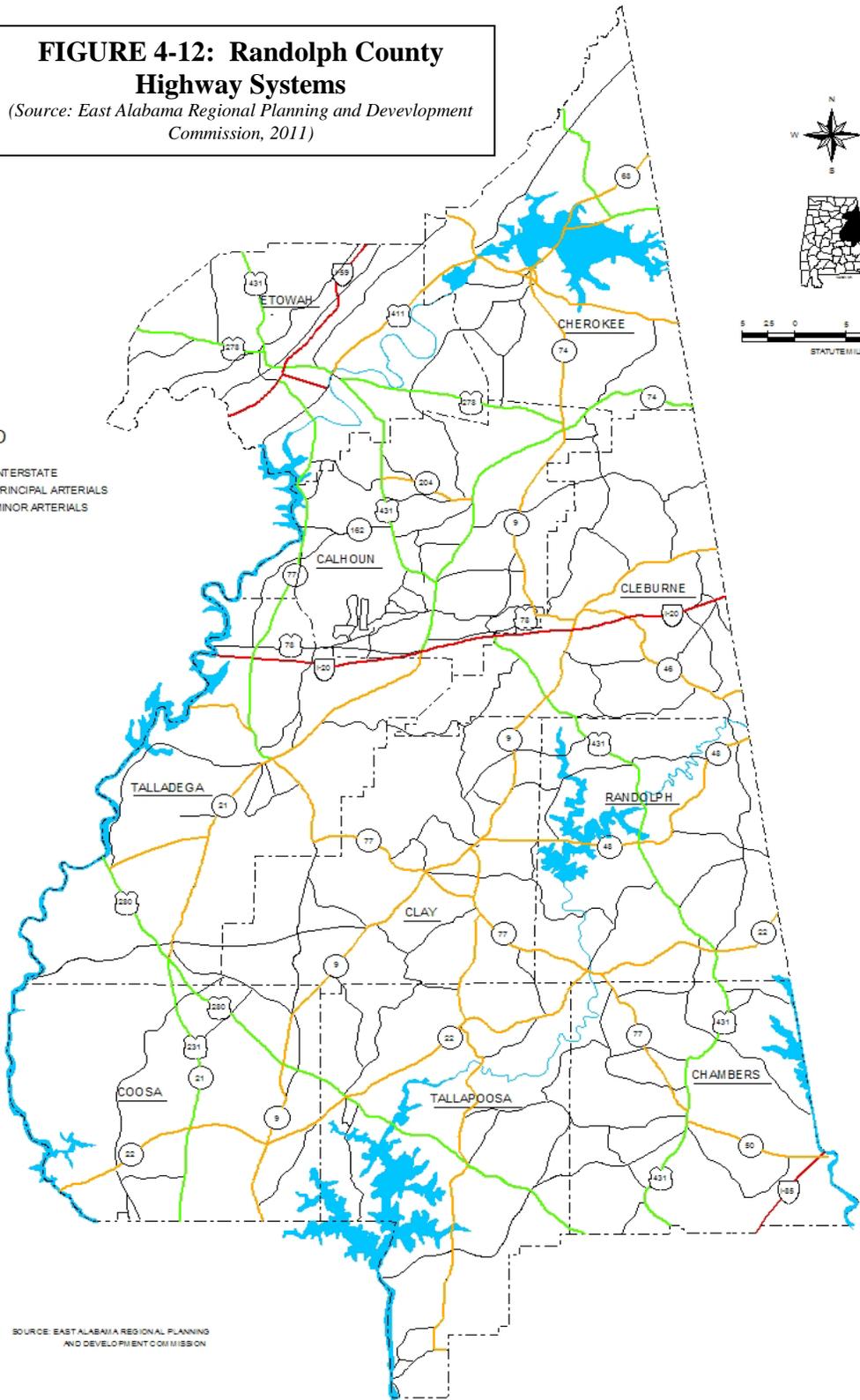
SOURCE: EAST ALABAMA REGIONAL PLANNING AND DEVELOPMENT COMMISSION

FIGURE 4-12: Randolph County Highway Systems

(Source: East Alabama Regional Planning and Development Commission, 2011)

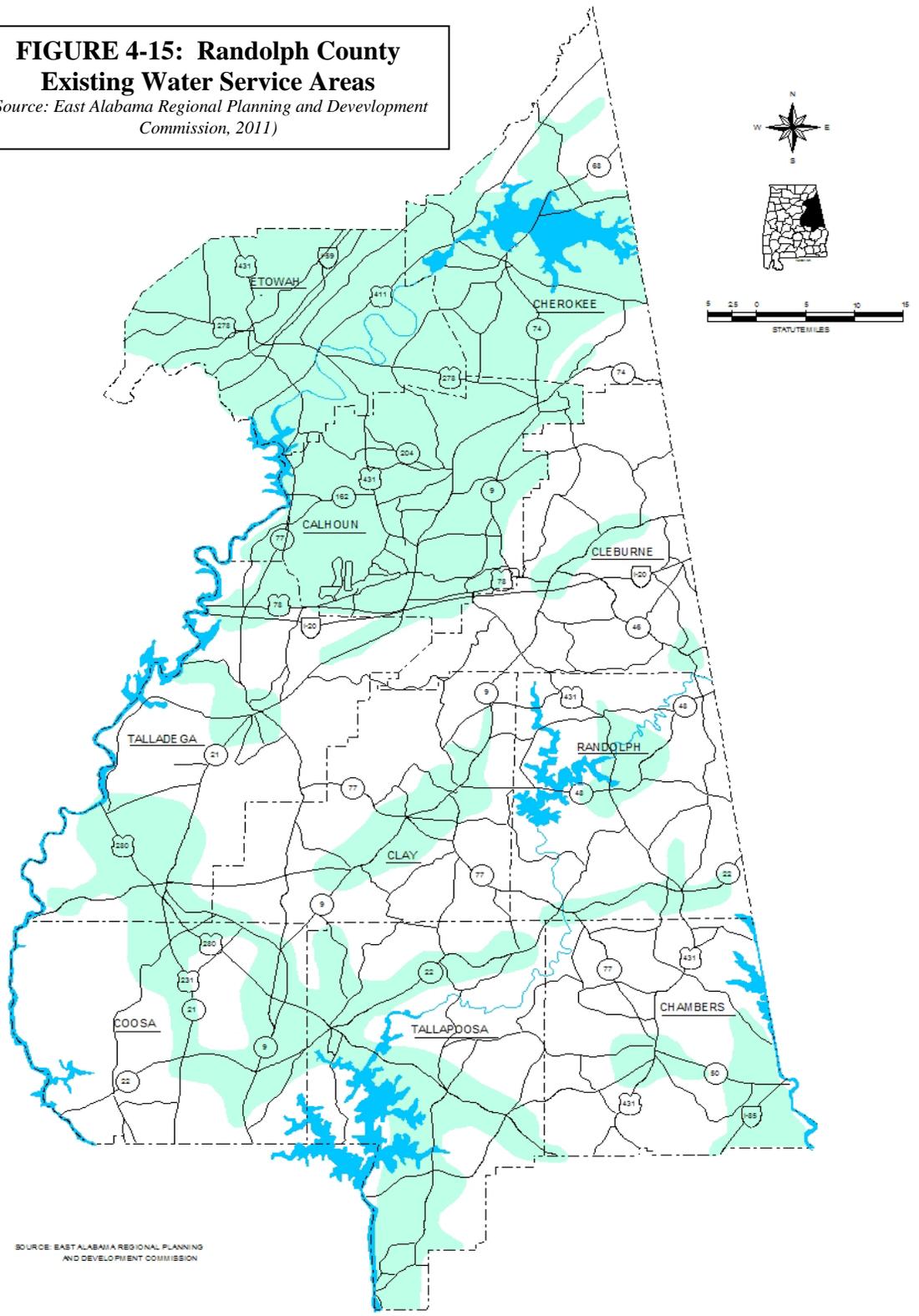
LEGEND

- INTERSTATE
- PRINCIPAL ARTERIALS
- MINOR ARTERIALS



SOURCE: EAST ALABAMA REGIONAL PLANNING AND DEVELOPMENT COMMISSION

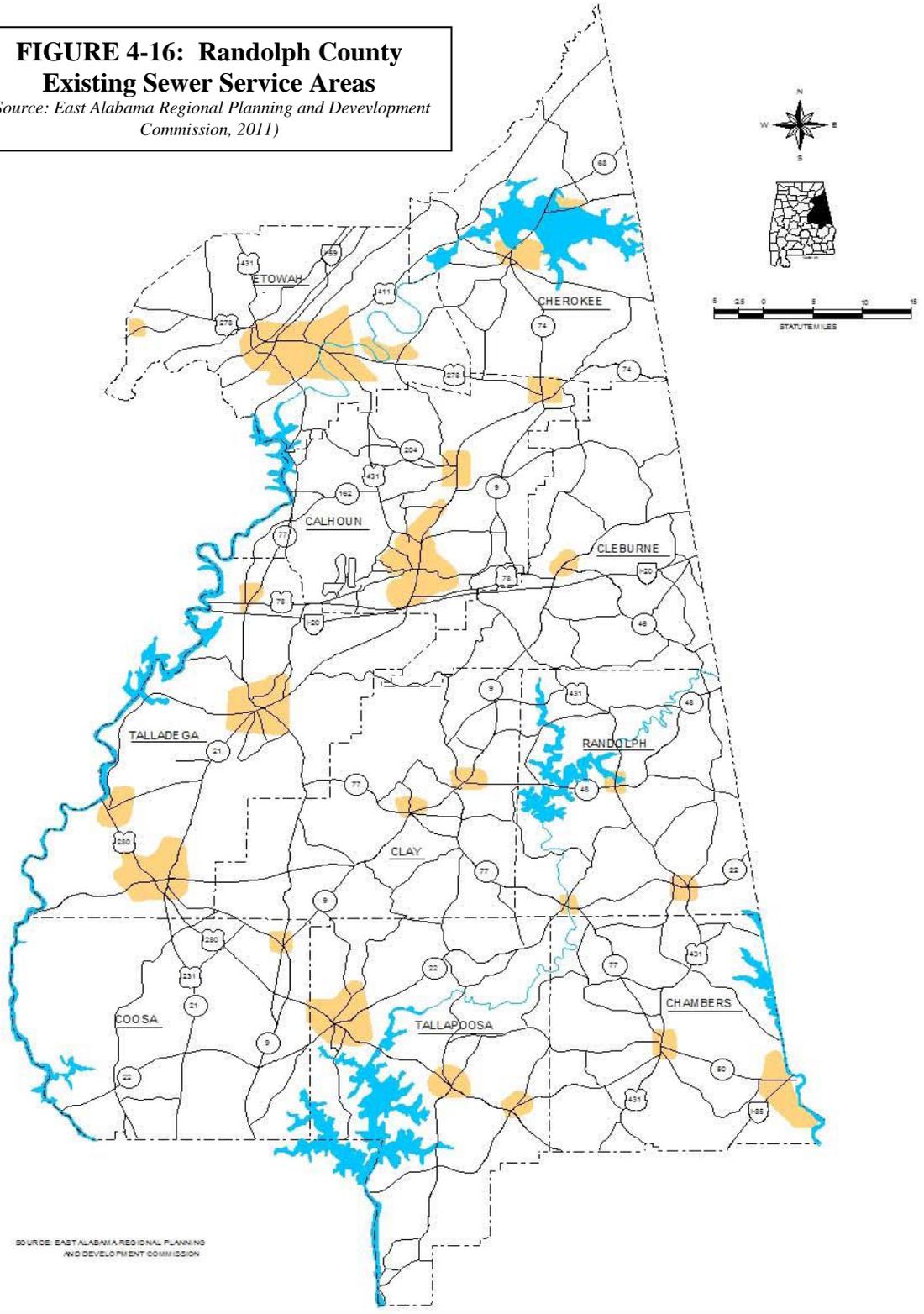
FIGURE 4-15: Randolph County Existing Water Service Areas
(Source: East Alabama Regional Planning and Development Commission, 2011)



SOURCE: EAST ALABAMA REGIONAL PLANNING AND DEVELOPMENT COMMISSION

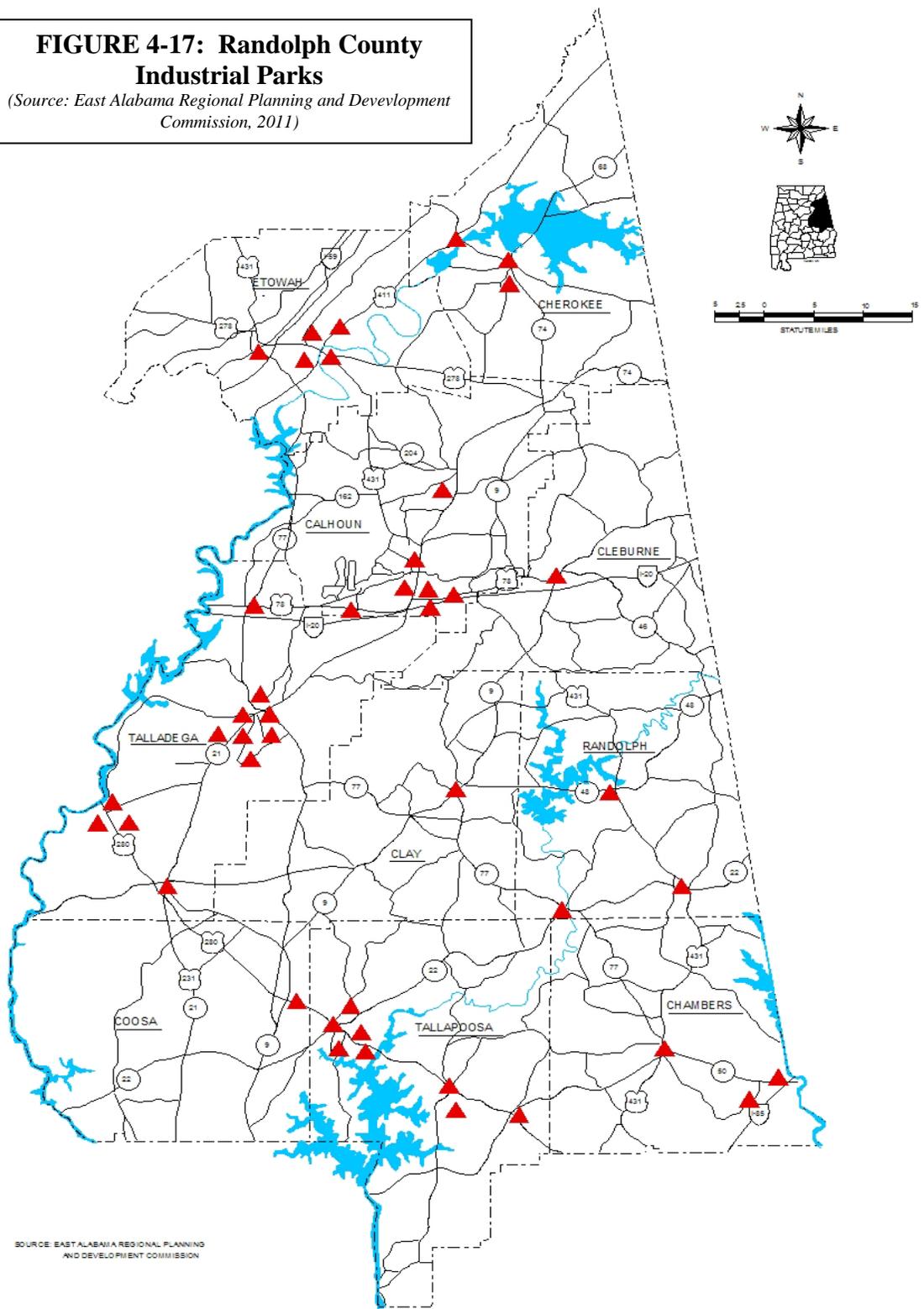
**FIGURE 4-16: Randolph County
Existing Sewer Service Areas**

(Source: East Alabama Regional Planning and Development Commission, 2011)



**FIGURE 4-17: Randolph County
Industrial Parks**

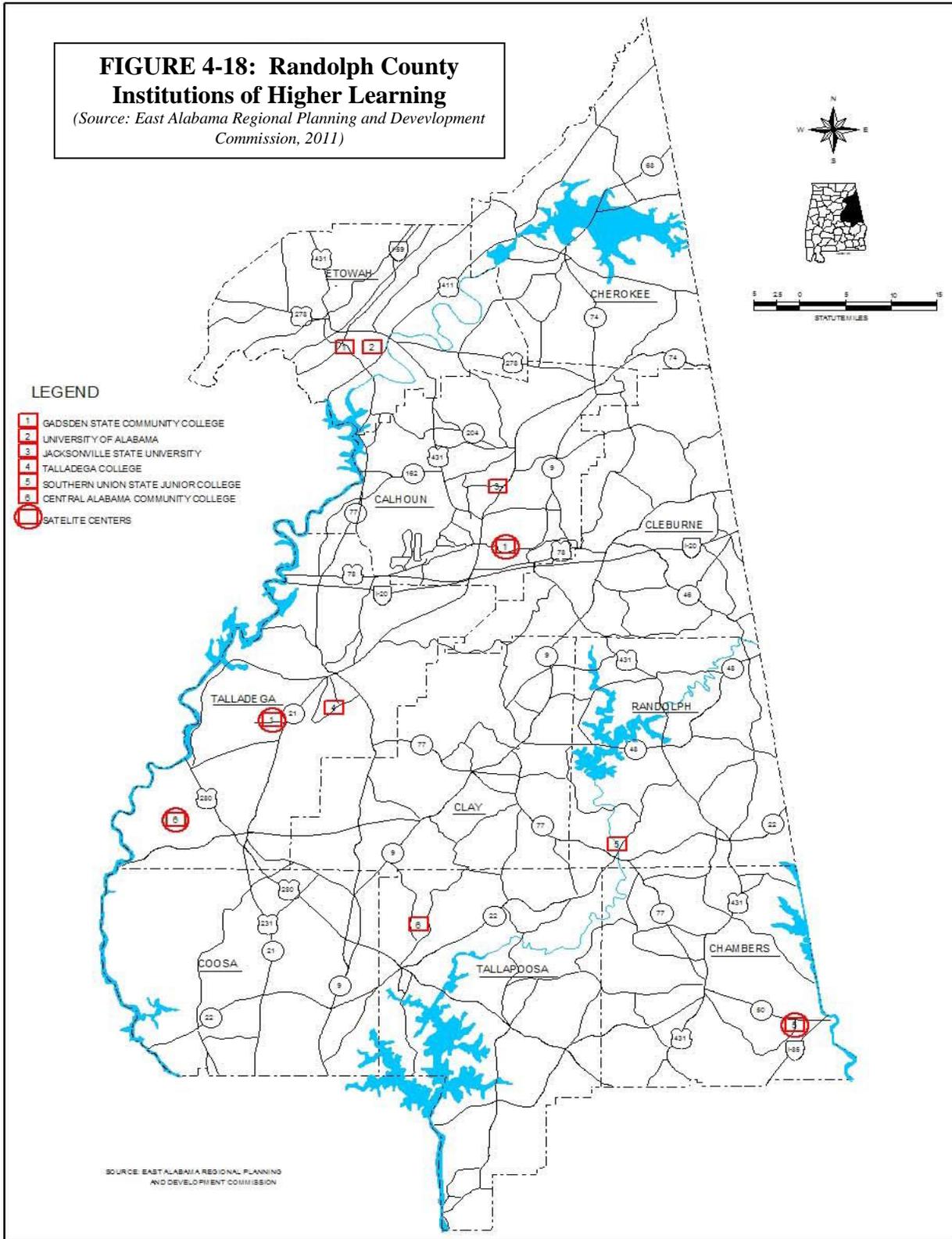
*(Source: East Alabama Regional Planning and Development
Commission, 2011)*



SOURCE: EAST ALABAMA REGIONAL PLANNING
AND DEVELOPMENT COMMISSION

**FIGURE 4-18: Randolph County
Institutions of Higher Learning**

(Source: East Alabama Regional Planning and Development Commission, 2011)



SECTION 5: MITIGATION STRATEGY

Mitigation Strategy

The Hazard Mitigation Planning Committee set forth mitigation goals and objectives for the county and its jurisdictions. Each jurisdiction sets forth its own mitigation action plan. In the preparation of the mitigation strategy, the Hazard Mitigation Planning Committee reviewed the goals and objectives of the 2010 plan revision. The committee agreed the goals and objectives would remain the same for this plan revision.

Hazard Mitigation Actions

The Randolph County HMPC members were provided lists of the actions and associated objectives identified in the 2010 plan for their review and comment. Agencies provided feedback on completed, in progress, deferred, and/or deleted actions. Further, the planning committee reviewed the local plan to verify that goals and objectives identified within the plan were compatible with the goals and objectives identified at the state level.

In the selection and prioritization of mitigation actions, each member was asked to consider the following: funding options, political support, public support, legality, preservation of the environment, and staff capability. The committee then looked at each strategy in terms of costs and benefits. Not only were direct costs and benefits considered, but indirect costs and benefits were also acknowledged. Indirect costs and/or benefits are often intangible attributes such as social effects.

Priority mitigation actions will be implemented only if they are cost beneficial; maximum benefits must outweigh the associated costs of the proposed actions. The 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 of the action. A more detailed benefit-cost analysis will be required for each priority action 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,

implementation of actions will be subject to the availability of FEMA grants and other sources of funding from year-to-year.

Mitigation Status

During the plan update mitigation actions were reviewed in order to identify completed, deferred, or deleted actions from the previous plan and incorporate actions added during annual updates. **Table 5-1** shows Randolph County's updated mitigation actions. During the plan update process new actions were identified and added to the plan. For this plan revision, the committee decided to assign a new labeling as one project may be equal in priority to another project. As a result, projects will be labeled high, medium, and low in priority.

The Randolph County HMPC reviewed all mitigation actions, adjusted the priority based upon actions that were previously identified, and reevaluated the grant funding programs. The committee assessed the availability of grant funds and the state/federal governments' prioritization of these potential grants in order to establish the priorities for Randolph County's planning strategy.

- A High ranking reflects a mitigation action identified by the HMPC as vital, pending funding availability
- A Medium ranking reflects a mitigation action identified by the HMPC as important, pending funding availability
- A Low ranking reflects a mitigation action identified by the HMPC as substantial, pending funding availability

Since the 2010 Plan was adopted, Randolph County was faced with a series of natural hazard threats. Randolph County pursues, and continues to pursue, a variety of natural hazard mitigation actions that reduce the potential impact of these threats and the impact of future threats. Since adoptions of the 2010 Plan, there have been 305 hazardous events in Randolph County as noted in **Table 4-4 through Table 4-15**. These events played a significant role in shaping the hazard mitigation priorities within Randolph County over the last five years. Each disaster revealed strengths and weaknesses within the hazard mitigation program, and the county adjusted its subsequent mitigation actions to address these weaknesses accordingly.

Mitigation Implementation

Mitigation Actions listed in the 2010 Plan will be benchmarked in this plan update. New mitigation actions will also be listed in this plan update.

Legend for the Mitigation Measure # as listed in the following tables:

- 1st # = Type #: 1 for Prevention
 2 for Property Protection
 3 for Public Education and Awareness
 4 for Natural Resource Protection
 5 for Emergency Services Protection
 6 for Structural Projects
- 2nd # = Goal #: 1 for “Establish a comprehensive countywide hazard mitigation system”
 2 for “Reduce Randolph County’s risk from natural hazards”
 3 for “Reduce vulnerability of new and future development”
 4 for “Reduce Randolph County’s vulnerability to natural hazards”
 5 for “Foster public support and acceptance of hazard mitigation”
- 3rd # = Actions: The number of mitigation measures with the same type # and goal #

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Table 5-1: Randolph County Mitigation Actions

Mitigation Action 1.2.1	Purchase and install severe weather sirens.
Type	Prevention
Goal	Reduce Randolph County's risk from natural hazards
Hazard(s) Addressed	All
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2016
Estimated Cost	\$35,000 each
Funding Sources	HMGP, PDM, CDBG
Priority	High
Benchmark	Five severe weather sirens have been installed during the past five years.
Mitigation Action 2.1.1	Complete a hydrologic study with particular interest on the retrofit of bridges and improving drainage troubled areas.
Type	Prevention
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	Floods
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Randolph County Engineer
Estimated Time Frame for Completion	2016
Estimated Cost	\$40,000
Funding Sources	HMGP, PDM, CDBG
Priority	High
Benchmark	Lack of funding has prevented this project from being completed within the last five years.

Mitigation Action 2.4.1	Improve drainage along county roads that flood during 25-year flooding events.
Type	Property Protection
Goal	Reduce Randolph County's vulnerability to natural hazards
Hazard(s) Addressed	Floods
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	County Engineer
Estimated Time Frame for Completion	2017
Estimated Cost	TBD following completion of hydrologic study
Funding Sources	HMGP, PDM, CDBG, DOT, ALDOT
Priority	
Benchmark	This action item is pending a hydrologic study costing approximately \$40,000. Lack of funding has prevented this project from being completed within the last five years.
Mitigation Action 5.2.1	Purchase and install emergency generators for post-disaster mitigation and conduct routine tests on backup generators for the county courthouse and the county jail.
Type	Emergency Services Protection
Goal	Reduce Randolph County's risk from natural hazards
Hazard(s) Addressed	All
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	Randolph County Commission and Randolph County EMA
Estimated Time Frame for Completion	2017
Estimated Cost	\$50,000 to \$65,000 each
Funding Sources	HMGP; ADECA; DHS, CDBG, Local
Priority	High
Benchmark	

Mitigation Action 6.1.1	Provide adequate individual storm shelters and community safe rooms.
Type	Structural Projects
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	TH; T
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Randolph County Commission and Randolph County EMA
Estimated Time Frame for Completion	2019
Estimated Cost	\$4,000 - \$130,000 each
Funding Sources	HMGP; ADECA; Local; GERF when available
Priority	High
Benchmark	New Mitigation Action Item

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SECTION 6: JURISDICTIONAL ASSESSMENTS

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CITY OF ROANOKE

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**Table 6-1: City of Roanoke
Risk and Vulnerability Overview**

Natural Hazards	Hazard Identification	Prioritized Occurrence Threat	Vulnerability
Thunderstorm	X	3	H
Lightning	X	8	M
Hail	X	4	L
Tornado	X	8	H
Flood/Flash Flood	X	6	M
Drought/Extreme Heat	X	2	H
Winter Storm/Frost Freeze/ Heavy Snow/Ice Storm/Winter Weather/ Extreme Cold	X	5	M
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	X	6	M
Sinkhole/Expansive Soil	X	7	L
Earthquake	X	8	L
Wildfire	X	1	L
Dam/Levee Failure	X	8	L

Sources: NOAA NCDC Storm Events Database; Alabama Forestry Commission; National Forestry Service; Alabama Geological Survey; Participating Jurisdictions

KEY

Hazard Identification: X Affects the Jurisdiction, N/A Not a threat to the jurisdiction

Priority: Hazards are prioritized with the highest threat of occurrence assigned number one based on hazardous events that have occurred within each jurisdiction over the past ten years, with the exception of wildfires that were based on events that have occurred over the past three years. Some natural hazards have equal threats to a jurisdiction; therefore, their threat number will be the same.

Vulnerability: NA – Not Applicable; not a hazard to the jurisdiction

L – Low Risk; little damage potential (damage to less than 5% of the jurisdiction)

M – Medium Risk; moderate damage potential (damage to 5-10% of jurisdiction, infrequent occurrence)

H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)

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Table 6-2: Roanoke's Thunderstorm Events

24 Thunderstorm Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>Countv/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
ROANOKE	RANDOLPH CO.	AL	05/07/2003	18:05	CST	Thunderstorm Wind	55 kts. EG	0	0	37.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	04/30/2005	05:09	CST	Thunderstorm Wind	52 kts. EG	0	0	3.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	06/23/2006	17:10	CST	Thunderstorm Wind	55 kts. EG	0	0	20.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	07/19/2006	10:55	CST	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	10/19/2006	17:45	CST-6	Thunderstorm Wind	65 kts. EG	0	0	50.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	07/22/2008	12:55	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
ROANOKE MUNI ARPT	RANDOLPH CO.	AL	07/22/2008	12:55	CST-6	Thunderstorm Wind	50 kts. EG	0	1	5.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/03/2009	15:30	CST-6	Thunderstorm Wind	50 kts. EG	0	0	30.00K	0.00K
ROANOKE MUNI ARPT	RANDOLPH CO.	AL	01/21/2010	07:15	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
ROANOKE MUNI ARPT	RANDOLPH CO.	AL	04/15/2011	23:27	CST-6	Thunderstorm Wind	50 kts. MG	0	0	10.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/26/2011	14:58	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K

ROANOKE	RANDOLPH CO.	AL	06/13/2013	19:42	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	06/27/2013	17:07	CST-6	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
Totals:								0	1	170.00K	0.00K

Table 6-3: Roanoke’s Lightning Events

0 Lightning Event – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

No lightning events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-4: Roanoke’s Hail Events

12 Hail Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Ini	PrD	CrD
ROANOKE	RANDOLPH CO.	AL	03/05/2003	21:11	CST	Hail	1.00 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	03/19/2003	16:45	CST	Hail	4.00 in.	0	0	35.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	03/19/2003	17:05	CST	Hail	1.75 in.	0	0	7.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/07/2003	16:30	CST	Hail	0.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	02/21/2005	22:14	CST	Hail	0.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/19/2006	14:19	CST	Hail	0.88 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/19/2006	14:20	CST	Hail	1.00 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/19/2006	15:30	CST	Hail	1.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/12/2007	17:55	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/04/2008	16:05	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	04/04/2011	21:01	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K

ROANOKE	RANDOLPH CO.	AL	04/04/2011	21:02	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
Totals:								0	0	42.00K	0.00K

Table 6-5: Roanoke’s Tornado Events

0 Tornado Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

No tornado events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-6: Roanoke’s Flood/Flash Flood Events

10 Flood/Flash Flood Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/08/2003	20:30	CST	Flood		0	0	300.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/18/2003	13:45	CST	Flood		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/11/2005	00:00	CST	Flood		0	0	1.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	05/07/2003	16:00	CST	Flash Flood		0	0	75.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	07/01/2003	08:00	CST	Flash Flood		0	0	10.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	09/16/2004	10:45	CST	Flash Flood	5	0	0	4.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	11/15/2006	12:30	CST-6	Flash Flood		0	0	0.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	05/16/2009	09:30	CST-6	Flash Flood		0	0	50.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	06/04/2010	11:30	CST-6	Flash Flood		0	0	115.00K	0.00K
ROANOKE	RANDOLPH CO.	AL	01/23/2012	08:20	CST-6	Flash Flood		0	0	0.00K	0.00K
Totals:								0	0	555.00K	0.00K

Table 6-7: Roanoke’s Drought/Extreme Heat Events

52 Drought/Extreme Heat Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Ini</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/30/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/14/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/05/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/17/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-8: Roanoke’s Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events

11 Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events – 01/01/2003 thru 12/31/2013 (4018 days)
(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/07/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/08/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/12/2010	12:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/25/2010	09:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/28/2005	20:45	CST	Ice Storm		0	0	100.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/09/2011	15:35	CST-6	Ice Storm		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/19/2008	06:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/15/2010	12:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/26/2010	05:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/09/2011	17:45	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/24/2003	00:00	CST	Extreme Cold/wind Chill		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-9: Roanoke’s Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events

10 Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events
– 01/01/2003 thru 12/31/2013 (4018 days)
(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/10/2005	16:00	CST	Tropical Storm		0	0	47.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/29/2005	23:30	CST	Tropical Storm		0	0	15.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/23/2008	12:00	CST-6	Tropical Depression		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/09/2009	14:00	CST-6	Tropical Depression		0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/16/2004	07:30	CST	High Wind	56 kts. EG	0	0	125.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/07/2004	00:15	CST	Strong Wind	33 kts. ES	0	0	1.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/11/2005	12:00	CST	Strong Wind	40 kts. EG	0	0	4.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/09/2006	18:00	CST	Strong Wind	40 kts. EG	0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/20/2007	18:15	CST-6	Strong Wind	30 kts. EG	0	0	10.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/13/2009	04:30	CST-6	Strong Wind	37 kts. MG	0	0	25.00K	0.00K
Totals:								0	0	231.00K	0.00K

Table 6-10: Roanoke’s Sinkhole Events

1 Sinkhole Event – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: (Source: NOAA NCDC Storm Events Database/U.S. and AL Geological Survey))

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
ROANOKE	RANDOLPH	AL	10/2009			Sinkhole		0	0	N/A	N/A
Totals:										N/A	N/A

Table 6-11: Roanoke’s Earthquake Events

0 Earthquake Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/U.S. Geological Survey)

No earthquake events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-12: Countywide Wildfire Events

96 Wildfire Events – 2010 thru 2013

(Source: Alabama Forestry Commission)

County	Total # of Fires 2010-2013	Average # of Fires Per Year	Total Acres Burned 2010-2013	Average Acres Burned Per Year	Average Fire Size in Acres
Randolph	96	32	923.65	307.88	9.62

Source: Alabama Forestry Commission

Table 6-13: Roanoke’s Dam/Levee Failure Events

0 Dam/Levee Failure Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/Local Input)

**Table 6-14: City of Roanoke
Hazard Probability Assessment**

Natural Hazards	Number of Historical Occurrences	Probability of Future Occurrence	Extent	Area Affected
Thunderstorm	24	>100%	>10%	Citywide
Lightning	0	0%	5-10%	Citywide
Hail	12	>100%	<5%	Citywide
Tornado	0	0%	>10%	Citywide
Flood/Flash Flood	10	10%	5-10%	Citywide
Drought/Extreme Heat	52	>100%	>10%	Citywide
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	11	>100%	5-10%	Citywide
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	10	10%	5-10%	Citywide
Sinkhole/Expansive Soil	1	1%	<5%	Citywide
Earthquake	0	0%	<5%	Citywide
Wildfire (3 year study period)	96	>100%	<5%	Citywide
Dam/Levee Failure	0	0%	<5%	Citywide

Source: NOAA NCDC; U. S. Inflation Calculator/Consumer Price Index; USGS ; Local Input; USDA Census of Agriculture; Alabama Forestry Commission; and National Forestry Service; Participating Jurisdictions

Methodology: Number of historical occurrences is those reported by NOAA NCDC during the 10 year study period, with the exception of wildfire that is a 3 year study period. Probability is expressed by dividing the total number of occurrences by the study period in years. Extent is expressed as the percentage assigned by the jurisdictions' ranking in the vulnerability overview (Table 4-40). Zero denotes no data available to determine the probability, extent, or affected area.

Table 6-15: Roanokes’s Critical Facilities

CRITICAL FACILITIES – ROANOKE	
FACILITY TYPE	REPLACEMENT VALUE
Roanoke Municipal Airport (also listed under county’s critical facilities)	\$10,651,000
Tin Shop VFD, Roanoke (also listed under county’s critical facilities)	\$1,260,000
East Randolph VFD, Roanoke (also listed under county’s critical facilities)	\$1,260,000
Roanoke FD, Roanoke (also listed under county’s critical facilities)	\$1,260,000
Rock Mills VFD, Roanoke (also listed under county’s critical facilities)	\$1,260,000
Roanoke Police Headquarters, Roanoke	\$1,260,000
East Alabama Christaian Academy, Roanoke (also listed under county’s critical facilities)	\$288,210
Faith Christian Academy, Roanoke (also listed under county’s critical facilities)	\$628,810
Knight Enloe Elementary School, Roanoke (also listed under county’s critical facilities)	\$6,111,670
Rock Mills Junior High School, Roanoke (also listed under county’s critical facilities)	\$1,674,970
Handley High School, Roanoke (also listed under county’s critical facilities)	\$5,318,720
Handley Middle School, Roanoke (also listed under county’s critical facilities)	\$8,176,460
Roanoke HCR Lagoon, Roanoke (also listed under county’s critical facilities)	\$59,940,000
WELR 1360, Roanoke (also listed under county’s critical facilities)	\$90,000
Total	\$99,179,840

(Source: HAZUS-MH 2011)

**Table 6-16: City of Roanoke
Estimated Loss Projections from Specified Hazards**

Natural Hazards	Average Occurrences (per year)	Total Deaths	Total Injuries	Average Death and Injury Loss (per event)	Average Crop and Property Loss (per event)	Projected Loss (per event)
Thunderstorm	2.4	0	1	\$966	\$7,083	\$8,773
Lightning	0	0	0	\$0	\$0	\$0
Hail	1.2	0	0	\$0	\$3,500	\$3,815
Tornado	0	0	0	\$0	\$0	\$0
Flood/Flash Flood	1.0	0	0	\$0	\$55,500	\$60,495
Drought/Extreme Heat	5.2	0	0	\$0	\$0	\$0
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	1.1	0	0	\$0	\$0	\$0
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	1.0	0	0	\$0	\$23,100	\$25,179
Sinkhole/Expansive Soils	0.1	0	0	\$0	\$0	\$0
Earthquake	0	0	0	\$0	\$0	\$0
Wildfire (3 year study period)	9.6	0	0	\$0	\$18,278	\$19,923
Dam/Levee Failure	0	0	0	\$0	\$0	\$0

Sources: NOAA NCDC; U.S. Inflation Calculator/Consumer Price Index; Local Input; USDA Census of Agriculture; Alabama Forestry Commission and National Forestry Service; Alabama Geological Survey

Methodology: Average occurrences were expressed annually by dividing the total number of occurrences by the ten-year period. Deaths and injuries were taken from the hazard event data. Average losses were calculated by dividing the total amount of all damages by the total number of occurrences during the ten-year period with the exception of wildfire which takes the average fire size as noted in Table 4-15 multiplied by average amount per acre (\$1,900). Projected loss expresses an estimated damage amount per future occurrence by converting the average loss figure from a midpoint of 2008 dollars to 2014 dollars (\$1 in 2008 = \$1.09 in 2014...a cumulative rate of inflation of 9%). Zero denotes no data available to determine the average occurrences, average loss or projected loss per event.

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City of Roanoke Mitigation Action Plan

The City of Roanoke recognizes the importance of mitigation planning and will incorporate mitigation planning in planning documents as they are revised or initiated.

Mitigation Status

During the plan update, mitigation actions were reviewed in order to identify completed, deferred, or deleted actions from the previous plan and incorporate actions added during annual updates. **Table 6-17** shows the City of Roanoke’s updated mitigation actions. During the plan update process, new mitigation actions were identified and added to the plan.

Table 6-17: Roanoke’s Mitigation Actions	
Mitigation Action 1.1.1	Make application and/or commit/continue to participate in the NFIP.
Type	Prevention
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	FL
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2016
Estimated Cost	N/A
Funding Sources	Local
Priority	High
Benchmark This mitigation action item is new.	Roanoke is a participating member of the NFIP and plans to keep this status.

Mitigation Action 2.1.1	Complete a storm water study with particular interest on the retrofit of bridges and improving drainage in troubled areas.
Type	Prevention
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	FL
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Roanoke Public Works Director
Estimated Time Frame for Completion	2017
Estimated Cost	\$150,000
Funding Sources	City Funds, HMGP, PDM, CDBG
Priority	High
Benchmark	Lack of funding has prevented this project from being completed within the last five years.
Mitigation Action 5.2.1	Purchase and install emergency generators for post disaster mitigation and conduct routine tests on backup generators for critical facilities.
Type	Emergency Services Protections
Goal	Reduce Randolph County's risk from natural hazards
Hazard(s) Addressed	All
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for Completion	2017
Estimated Cost	\$5,000 - \$65,000 each
Funding Sources	HMGP, ADECA, DHS, CDBG, Local
Priority	High
Benchmark	
	This mitigation action item is new.

Mitigation Action 6.1.1	Install community safe rooms
Type	Structural Projects
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	TH; T
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Roanoke City Council
Estimated Time Frame for Completion	2019
Estimated Cost	\$130,000 each
Funding Sources	HMGP; ADECA; Local; GERF when available
Priority	High
Benchmark	Lack of funding has prevented this project from being completed within the last five years.

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Town of Wadley

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**Table 6-18: Town of Wadley
Risk and Vulnerability Overview**

Natural Hazards	Hazard Identification	Prioritized Occurrence Threat	Vulnerability
Thunderstorm	X	5	H
Lightning	X	8	L
Hail	X	6	M
Tornado	X	7	H
Flood/Flash Flood	X	5	H
Drought/Extreme Heat	X	2	M
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	X	3	M
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	X	4	M
Sinkhole/Expansive Soil	X	9	L
Earthquake	X	9	L
Wildfire	X	1	L
Dam/Levee Failure	X	9	L

Sources: NOAA NCDC Storm Events Database; Alabama Forestry Commission; National Forestry Service; Alabama Geological Survey; Participating Jurisdictions

KEY

Hazard Identification: X Affects the Jurisdiction, N/A Not a threat to the jurisdiction

Priority: Hazards are prioritized with the highest threat of occurrence assigned number one based on hazardous events that have occurred within each jurisdiction over the past ten years, with the exception of wildfires that were based on events that have occurred over the past three years. Some natural hazards have equal threats to a jurisdiction; therefore, their threat number will be the same.

Vulnerability: NA – Not Applicable; not a hazard to the jurisdiction

L – Low Risk; little damage potential (damage to less than 5% of the jurisdiction)

M – Medium Risk; moderate damage potential (damage to 5-10% of jurisdiction, infrequent occurrence)

H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)

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Table 6-19: Wadley's Thunderstorm Events

4 Thunderstorm Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
COUNTYWIDE	RANDOLPH CO.	AL	04/30/2005	05:09	CST	Thunderstorm Wind	52 kts. EG	0	0	3.00K	0.00K
WADLEY	RANDOLPH CO.	AL	06/29/2008	17:30	CST-6	Thunderstorm Wind	40 kts. EG	0	0	1.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/15/2011	23:13	CST-6	Thunderstorm Wind	50 kts. MG	0	0	2.00K	0.00K
WADLEY	RANDOLPH CO.	AL	01/30/2013	11:28	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Totals:								0	0	6.00K	0.00K

Table 6-20: Wadley's Lightning Events

1 Lightning Event – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
WADLEY	RANDOLPH CO.	AL	04/18/2006	18:10	CST	Lightning		0	0	10.00K	0.00K
Totals:								0	0	10.00K	0.00K

Table 6-21: Wadley's Hail Events

3 Hail Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
WADLEY	RANDOLPH CO.	AL	03/19/2003	16:15	CST	Hail	0.88 in.	0	0	0.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/19/2006	15:45	CST	Hail	0.88 in.	0	0	0.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/04/2008	15:50	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K

Totals:									0	0	0.00K	0.00K
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Table 6-22: Wadley’s Tornado Events

2 Tornado Events – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
WADLEY	RANDOLPH CO.	AL	04/30/2005	05:26	CST	Tornado	F1	0	0	18.00K	0.00K
WADLEY	RANDOLPH CO.	AL	04/30/2005	05:30	CST	Tornado	F1	0	0	60.00K	0.00K
Totals:								0	0	78.00K	0.00K

Table 6-23: Wadley’s Flood/Flash Flood Events

4 Flood/Flash Flood Events – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/08/2003	20:30	CST	Flood		0	0	300.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/18/2003	13:45	CST	Flood		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/11/2005	00:00	CST	Flood		0	0	1.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	05/07/2003	16:00	CST	Flash Flood		0	0	75.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	07/01/2003	08:00	CST	Flash Flood		0	0	10.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	09/16/2004	10:45	CST	Flash Flood	5	0	0	4.00K	0.00K
Totals:								0	0	390.00K	0.00K

Table 6-24: Wadley’s Drought/Extreme Heat Events

52 Drought/Extreme Heat Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Ini</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/30/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/14/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/05/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/17/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-25: Wadley’s Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events

11 Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events – 01/01/2003 thru 12/31/2013 (4018 days)
(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/07/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/08/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/12/2010	12:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/25/2010	09:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/28/2005	20:45	CST	Ice Storm		0	0	100.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/09/2011	15:35	CST-6	Ice Storm		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/19/2008	06:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/15/2010	12:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/26/2010	05:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/09/2011	17:45	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/24/2003	00:00	CST	Extreme Cold/wind Chill		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-26: Wadley’s Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events

10 Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events
 – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/10/2005	16:00	CST	Tropical Storm		0	0	47.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/29/2005	23:30	CST	Tropical Storm		0	0	15.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/23/2008	12:00	CST-6	Tropical Depression		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/09/2009	14:00	CST-6	Tropical Depression		0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/16/2004	07:30	CST	High Wind	56 kts. EG	0	0	125.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/07/2004	00:15	CST	Strong Wind	33 kts. ES	0	0	1.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/11/2005	12:00	CST	Strong Wind	40 kts. EG	0	0	4.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/09/2006	18:00	CST	Strong Wind	40 kts. EG	0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/20/2007	18:15	CST-6	Strong Wind	30 kts. EG	0	0	10.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/13/2009	04:30	CST-6	Strong Wind	37 kts. MG	0	0	25.00K	0.00K
Totals:								0	0	231.00K	0.00K

Table 6-27: Wadley’s Sinkhole Events

0 Sinkhole Events – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: (Source: NOAA NCDC Storm Events Database/U.S.and AL Geological Survey)

No sinkhole events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-28: Wadley’s Earthquake Events

0 Earthquake Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/U.S. Geological Survey)

No earthquake events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-29: Countywide Wildfire Events

96 Wildfire Events – 2010 thru 2013

(Source: Alabama Forestry Commission)

County	Total # of Fires 2010-2013	Average # of Fires Per Year	Total Acres Burned 2010- 2013	Average Acres Burned Per Year	Average Fire Size in Acres
Randolph	96	32	923.65	307.88	9.62

Table 6-30: Wadley’s Dam/Levee Failure Events

0 Dam/Levee Failure Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/Local Input)

No dam/levee failure events occurred or were reported during 01/01/2003 thru 12/31/2013.

**Table 6-31: Town of Wadley
Hazard Probability Assessment**

Natural Hazards	Number of Historical Occurrences	Probability of Future Occurrence	Extent	Area Affected
Thunderstorm	4	40%	>10%	Town wide
Lightning	1	10%	<5%	Town wide
Hail	3	30%	5-10%	Town wide
Tornado	2	20%	>10%	Town wide
Flood/Flash Flood	4	40%	>10%	Town wide
Drought/Extreme Heat	52	>100%	5-10%	Town wide
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	11	>100%	5-10%	Town wide
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	10	100%	5-10%	Town wide
Sinkhole/Expansive Soil	0	0%	<5%	Town wide
Earthquake	0	0%	<5%	Town wide
Wildfire (3 year study period)	96	>100%	<5%	Town wide
Dam/Levee Failure	0	0%	<5%	Town wide

Source: NOAA NCDC; U. S. Inflation Calculator/Consumer Price Index; USGS ; Local Input; USDA Census of Agriculture; Alabama Forestry Commission; and National Forestry Service; Participating Jurisdictions

Methodology: Number of historical occurrences is those reported by NOAA NCDC during the 10 year study period, with the exception of wildfire that is a 3 year study period. Probability is expressed by dividing the total number of occurrences by the study period in years. Extent is expressed as the percentage assigned by the jurisdictions' ranking in the vulnerability overview (Table 4-40). Zero denotes no data available to determine the probability, extent, or affected area.

Table 6-32: Wadley's Critical Facilities

CRITICAL FACILITIES – WADLEY	
FACILITY TYPE	REPLACEMENT VALUE
Corinth VFD, Wadley (also listed under the county's Critical Facilities)	\$1,260,000
Wadley VFD	\$1,260,000
Wadley PD, Wadley	\$1,260,000
Wadley High School, Wadley (also listed under the county's Critical Facilities)	\$5,082,920
Town of Wadley Lagoon, Wadley	\$59,940,000
Transcontinental Gas Pipeline Corporation, Wadley	\$981,000
Total	\$69,783,920

(Source: HAZUS-MH 2011)

**Table 6-33: Town of Wadley
Estimated Loss Projections from Specified Hazards**

Natural Hazards	Average Occurrences (per year)	Total Deaths	Total Injuries	Average Death and Injury Loss (per event)	Average Crop and Property Loss (per event)	Projected Loss (per event)
Thunderstorm	0.4	0	0	\$0	\$600	\$654
Lightning	0.1	0	0	\$0	\$0	\$0
Hail	0.3	0	0	\$0	\$0	\$0
Tornado	0.2	0	0	\$0	\$7,800	\$8,502
Flood/Flash Flood	0.4	0	0	\$0	\$39,000	\$42,510
Drought/Extreme Heat	5.2	0	0	\$0	\$0	\$0
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	1.1	0	0	\$0	\$0	\$0
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	1.0	0	0	\$0	\$23,100	\$25,179
Sinkhole/Expansive Soils	0	0	0	\$0	\$0	\$0
Earthquake	0	0	0	\$0	\$0	\$0
Wildfire (3 year study period)	9.6	0	0	\$0	\$18,240	\$19,882
Dam/Levee Failure	0	0	0	\$0	\$0	\$0

Sources: NOAA NCDC; U.S. Inflation Calculator/Consumer Price Index; Local Input; USDA Census of Agriculture; Alabama Forestry Commission and National Forestry Service; Alabama Geological Survey

Methodology: Average occurrences were expressed annually by dividing the total number of occurrences by the ten-year period. Deaths and injuries were taken from the hazard event data. Average losses were calculated by dividing the total amount of all damages by the total number of occurrences during the ten-year period with the exception of wildfire which takes the average fire size as noted in Table 4-15 multiplied by average amount per acre (\$1,900). Projected loss expresses an estimated damage amount per future occurrence by converting the average loss figure from a midpoint of 2008 dollars to 2014 dollars (\$1 in 2008 = \$1.09 in 2014...a cumulative rate of inflation of 9%). Zero denotes no data available to determine the average occurrences, average loss or projected loss per event.

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Town of Wadley Mitigation Action Plan

The Town of Wadley recognizes the importance of mitigation planning and will incorporate mitigation planning in planning documents as they are revised or initiated.

Mitigation Status

During the plan update, mitigation actions were reviewed in order to identify completed, deferred, or deleted actions from the previous plan and incorporate actions added during annual updates. **Table 6-34** shows the Town of Wadley’s updated mitigation actions. During the plan update process no new mitigations actions were identified and added to the plan.

Table 6-34: Wadley’s Mitigation Actions	
Mitigation Action 1.1.1	Make application and/or commit/continue to participate in the NFIP.
Type	Prevention
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	FL
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2016
Estimated Cost	N/A
Funding Sources	Local
Priority	High
Benchmark This mitigation action item is new.	The Town of Wadley is a NFIP participating community and plans on maintaining this status.

Mitigation Action 3.5.1	Purchase and distribute public education materials on flooding response and preparedness (magnets, brochures, etc.)
Type	Public Education and Awareness
Goal	Foster public support and acceptance of hazard mitigation
Hazard(s) Addressed	FL
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Wadley Town Council
Estimated Time Frame for Completion	2020
Estimated Cost	\$1,500
Funding Sources	HMGP, PDM, Local
Priority	Medium
Benchmark:	Budgetary restraints have prevented this mitigation action item from being implemented thus far.
Mitigation Action 5.2.1	Purchase/update emergency generators for post-disaster mitigation and conduct routine tests on backup generators for all critical facilities.
Type	Emergency Services Protection
Goal	Reduce Randolph County's risk from natural hazards
Hazard(s) Addressed	All
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	Wadley Town Council
Estimated Time Frame for Completion	2018
Estimated Cost	\$1,000 - \$5,000 each
Funding Sources	HMGP; ADECA; PDM; Local
Priority	High
Benchmark	
	This mitigation action item is new.

Mitigation Action 6.1.1	Install community safe rooms.
Type	Structural Projects
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	TH; T
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Wadley City Council
Estimated Time Frame for Completion	2019
Estimated Cost	\$130,000 each
Funding Sources	HMGP; ADECA; Local; GERF when available
Priority	High
Benchmark	Budgetary restraints have prevented this mitigation action item from being implemented thus far.

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TOWN OF WEDOWEE

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**Table 6-35: Town of Wedowee
Risk and Vulnerability Overview**

Natural Hazards	Hazard Identification	Prioritized Occurrence Threat	Vulnerability
Thunderstorm	X	4	H
Lightning	X	8	M
Hail	X	7	L
Tornado	X	9	H
Flood/Flash Flood	X	6	M
Drought/Extreme Heat	X	2	M
Winter Storm/Frost Freeze/ Heavy Snow/Ice Storm/Winter Weather/ Extreme Cold	X	3	M
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	X	5	M
Sinkhole/Expansive Soil	X	10	L
Earthquake	X	10	L
Wildfire	X	1	L
Dam/Levee Failure	X	10	L

Sources: NOAA NCDC Storm Events Database; Alabama Forestry Commission; National Forestry Service; Alabama Geological Survey; Participating Jurisdictions

KEY

Hazard Identification: X Affects the Jurisdiction, N/A Not a threat to the jurisdiction

Priority: Hazards are prioritized with the highest threat of occurrence assigned number one based on hazardous events that have occurred within each jurisdiction over the past ten years, with the exception of wildfires that were based on events that have occurred over the past three years. Some natural hazards have equal threats to a jurisdiction; therefore, their threat number will be the same.

Vulnerability: NA – Not Applicable; not a hazard to the jurisdiction

L – Low Risk; little damage potential (damage to less than 5% of the jurisdiction)

M – Medium Risk; moderate damage potential (damage to 5-10% of jurisdiction, infrequent occurrence)

H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)

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Table 6-36: Wedowee’s Thunderstorm Events

16 Thunderstorm Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
WEDOWEE	RANDOLPH CO.	AL	05/02/2003	17:50	CST	Thunderstorm Wind	70 kts. EG	0	0	800.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/12/2003	15:17	CST	Thunderstorm Wind	60 kts. EG	0	0	10.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	11/23/2004	13:38	CST	Thunderstorm Wind	60 kts. EG	0	0	75.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	04/22/2005	10:02	CST	Thunderstorm Wind	52 kts. EG	0	0	125.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	04/22/2005	11:20	CST	Thunderstorm Wind	52 kts. EG	0	0	3.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	04/30/2005	05:09	CST	Thunderstorm Wind	52 kts. EG	0	0	3.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	07/19/2006	11:40	CST	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	08/15/2006	15:15	CST	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	08/15/2006	15:28	CST	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/28/2007	13:38	CST-6	Thunderstorm Wind	39 kts. EG	0	0	2.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	05/20/2008	19:13	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/29/2008	17:30	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/09/2009	02:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	10/27/2010	10:58	CST-6	Thunderstorm Wind	55 kts. EG	0	0	7.00K	0.00K

WEDOWEE	RANDOLPH CO.	AL	04/04/2011	20:55	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	03/18/2013	15:34	CST-6	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
Totals:								0	1	1.051M	0.00K

Table 6-37: Wedowee's Lightning Events

2 Lightning Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
WEDOWEE	RANDOLPH CO.	AL	07/14/2004	17:30	CST	Lightning		0	0	8.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	08/15/2006	15:20	CST	Lightning		0	0	75.00K	0.00K
Totals:								0	0	83.00K	0.00K

Table 6-38: Wedowee’s Hail Events

7 Hail Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
WEDOWEE	RANDOLPH CO.	AL	03/19/2003	21:25	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	02/21/2005	21:49	CST	Hail	1.00 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/04/2005	14:08	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/04/2005	14:28	CST	Hail	1.75 in.	0	0	3.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	12/28/2005	14:25	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	04/19/2006	15:30	CST	Hail	1.75 in.	0	0	0.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	06/15/2010	14:30	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
Totals:								0	0	3.00K	0.00K

Table 6-39: Wedowee’s Tornado Events

1 Tornado Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
WEDOWEE	RANDOLPH CO.	AL	05/07/2003	15:40	CST	Tornado	F1	0	0	85.00K	0.00K
Totals:								0	0	85.00K	0.00K

Table 6-40: Wedowee’s Flood/Flash Flood Events

8 Flood/Flash Flood Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/08/2003	20:30	CST	Flood		0	0	300.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/18/2003	13:45	CST	Flood		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/11/2005	00:00	CST	Flood		0	0	1.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	05/07/2003	16:00	CST	Flash Flood		0	0	75.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	07/01/2003	08:00	CST	Flash Flood		0	0	10.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	09/16/2004	10:45	CST	Flash Flood	5	0	0	4.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	07/10/2005	17:30	CST	Flash Flood		0	0	2.00K	0.00K
WEDOWEE	RANDOLPH CO.	AL	01/24/2010	13:30	CST-6	Flash Flood		0	0	25.00K	0.00K
Totals:								0	0	417.00K	0.00K

Table 6-41: Wedowee’s Drought/Extreme Heat Events

52 Drought/Extreme Heat Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Ini</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/30/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/14/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/05/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/17/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-42: Wedowee’s Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events

28 Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events – 01/01/2003 thru 12/31/2013 (4018 days)
(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/07/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/08/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/12/2010	12:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/25/2010	09:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/28/2005	20:45	CST	Ice Storm		0	0	100.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/09/2011	15:35	CST-6	Ice Storm		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/19/2008	06:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/15/2010	12:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/26/2010	05:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/09/2011	17:45	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/24/2003	00:00	CST	Extreme Cold/wind Chill		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-43: Wedowee’s Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events

10 Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events
 – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/10/2005	16:00	CST	Tropical Storm		0	0	47.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/29/2005	23:30	CST	Tropical Storm		0	0	15.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/23/2008	12:00	CST-6	Tropical Depression		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/09/2009	14:00	CST-6	Tropical Depression		0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/16/2004	07:30	CST	High Wind	56 kts. EG	0	0	125.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/07/2004	00:15	CST	Strong Wind	33 kts. ES	0	0	1.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/11/2005	12:00	CST	Strong Wind	40 kts. EG	0	0	4.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/09/2006	18:00	CST	Strong Wind	40 kts. EG	0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/20/2007	18:15	CST-6	Strong Wind	30 kts. EG	0	0	10.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/13/2009	04:30	CST-6	Strong Wind	37 kts. MG	0	0	25.00K	0.00K
Totals:								0	0	231.00K	0.00K

Table 6-44: Wedowee’s Sinkhole Events

0 Sinkhole Events – 01/01/2003 thru 12/31/2013 (4018 days)
 (Source: (Source: NOAA NCDC Storm Events Database/U.S.and AL Geological Survey)

No sinkhole events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-45: Wedowee’s Earthquake Events

0 Earthquake Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/U.S. Geological Survey)

No earthquake events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-46: Countywide Wildfire Events

96 Wildfire Events – 2010 thru 2013

(Source: Alabama Forestry Commission)

County	Total # of Fires 2010-2013	Average # of Fires Per Year	Total Acres Burned 2010- 2013	Average Acres Burned Per Year	Average Fire Size in Acres
Randolph	96	32	923.65	307.88	9.62

Table 6-47: Wedowee’s Dam/Levee Failure Events

0 Dam/Levee Failure Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/Local Input)

No dam/levee failure events occurred or were reported during 01/01/2003 thru 12/31/2013.

**Table 6-48: Town of Wedowee
Hazard Probability Assessment**

Natural Hazards	Number of Historical Occurrences	Probability of Future Occurrence	Extent	Area Affected
Thunderstorm	16	>100%	>10%	Town wide
Lightning	2	20%	5-10%	Town wide
Hail	7	70%	<5%	Town wide
Tornado	1	10%	>10%	Town wide
Flood/Flash Flood	8	80%	5-10%	Town wide
Drought/Extreme Heat	52	>100%	5-10%	Town wide
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	28	>100%	5-10%	Town wide
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	10	10%	5-10%	Town wide
Sinkhole/Expansive Soil	0	0%	<5%	Town wide
Earthquake	0	0%	<5%	Town wide
Wildfire (3 year study period)	96	>100%	<5%	Town wide
Dam/Levee Failure	0	0	<5%	Town wide

Source: NOAA NCDC; U. S. Inflation Calculator/Consumer Price Index; USGS ; Local Input; USDA Census of Agriculture; Alabama Forestry Commission; and National Forestry Service; Participating Jurisdictions

Methodology: Number of historical occurrences is those reported by NOAA NCDC during the 10 year study period, with the exception of wildfire that is a 3 year study period. Probability is expressed by dividing the total number of occurrences by the study period in years. Extent is expressed as the percentage assigned by the jurisdictions' ranking in the vulnerability overview (Table 4-40). Zero denotes no data available to determine the probability, extent, or affected area.

Table 6-49: Town of Wedowee’s Critical Facilities

CRITICAL FACILITIES – TOWN OF WEDOWEE	
FACILITY TYPE	REPLACEMENT VALUE
Wedowee Hospital, Wedowee (also listed under the county’s critical facilities list)	\$6,839,770
Wedowee FD, Wedowee (also listed under the county’s critical facilities list)	\$1,260,000
New Hope VFD, Wedowee (also listed under the county’s critical facilities list)	\$1,260,000
Randolph County Sheriff’s Office, Wedowee (also listed under the county’s critical facilities list)	\$1,260,000
Wedowee PD, Wedowee	\$1,260,000
Randolph County High School, Wedowee (also listed under the county’s critical facilities list)	\$9,918,800
Wedowee Middle School, Wedowee (also listed under the county’s critical facilities list)	\$2,178,390
Wedowee Elementary School, Wedowee (also listed under the county’s critical facilities list)	\$2,178,390
Randolph-Roanoke Career Technology Center, Wedowee (also listed under the county’s critical facilities list)	\$13,467,120
Wedowee Lagoon, Wedowee	\$59,940,000
Alabama Power Company Harris Hydro, Wedowee	\$99,000,000
Total	\$197,302,470

(Sources: HAZUS – MH 2011)

**Table 6-50: Town of Wedowee
Estimated Loss Projections from Specified Hazards**

Natural Hazards	Average Occurrences (per year)	Total Deaths	Total Injuries	Average Death and Injury Loss (per event)	Average Crop and Property Loss (per event)	Projected Loss (per event)
Thunderstorm	1.6	0	0	\$0	\$65,688	\$71,599
Lightning	0.2	0	0	\$0	\$8,300	\$9,047
Hail	0.7	0	0	\$0	\$300	\$327
Tornado	0.1	0	0	\$0	\$8,500	\$9,265
Flood/Flash Flood	0.8	0	0	\$0	\$41,700	\$45,453
Drought/Extreme Heat	5.2	0	0	\$0	\$0	\$0
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	2.8	0	0	\$0	\$10,000	\$10,900
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	1.0	0	0	\$0	\$23,100	\$25,179
Sinkhole/Expansive Soils	0.0	0	0	\$0	\$0	\$0
Earthquake	0.0	0	0	\$0	\$0	\$0
Wildfire (3 year study period)	9.6	0	0	\$0	\$18,240	\$19,882
Dam/Levee Failure	0.0	0	0	\$0	\$0	\$0

Sources: NOAA NCDC; U.S. Inflation Calculator/Consumer Price Index; Local Input; USDA Census of Agriculture; Alabama Forestry Commission and National Forestry Service; Alabama Geological Survey

Methodology: Average occurrences were expressed annually by dividing the total number of occurrences by the ten-year period. Deaths and injuries were taken from the hazard event data. Average losses were calculated by dividing the total amount of all damages by the total number of occurrences during the ten-year period with the exception of wildfire which takes the average fire size as noted in Table 4-15 multiplied by average amount per acre (\$1,900). Projected loss expresses an estimated damage amount per future occurrence by converting the average loss figure from a midpoint of 2008 dollars to 2014 dollars (\$1 in 2008 = \$1.09 in 2014...a cumulative rate of inflation of 9%). Zero denotes no data available to determine the average occurrences, average loss or projected loss per event.

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Town of Wedowee Mitigation Action Plan

The Town of Wedowee recognizes the importance of mitigation planning and will incorporate mitigation planning in planning documents as they are revised or initiated.

Mitigation Status

During the plan update, mitigation actions were reviewed in order to identify completed, deferred, or deleted actions from the previous plan and incorporate actions added during annual updates. **Table 6-51** shows the Town of Wedowee’s updated mitigation actions. During the plan update process, no new mitigation actions were identified and added to the plan.

Table 6-51: Town of Wedowee’s Mitigation Actions	
Mitigation Action 1.1.1	Make application and/or commit/continue to participate in the NFIP.
Type	Prevention
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	FL
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2016
Estimated Cost	N/A
Funding Sources	Local
Priority	High
Benchmark <i>This mitigation action item is new.</i>	The Town of Wedowee is a NFIP participating community and plans on maintaining this status.

Mitigation Action 2.1.1	Complete a hydrology study with particular interest on the creek overflows and improving drainage in troubled areas.
Type	Prevention
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	FL
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Wedowee Utilities Department
Estimated Time Frame for Completion	2018
Estimated Cost	\$50,000
Funding Sources	City Funds, HMGP, PDM, CDBG
Priority	High
Benchmark	Lack of funding has prevented this project from being completed within the last five years.
Mitigation Action 2.2.1	Make drainage improvements along the creek following the completion of a hydrology study.
Type	Property Protection
Goal	Reduce Randolph County's risk from natural hazards
Hazard(s) Addressed	TH; T; FL; W; H; D/LF
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Wedowee Utilities Department
Estimated Time Frame for Completion	2018
Estimated Cost	\$50,000
Funding Sources	HMGP; PDM; CDBG; Local
Priority	High
Benchmark	Budgetary restraints have prevented this mitigation action item from being implemented thus far.

Mitigation Action 5.2.1	Purchase emergency generators for post disaster mitigation and power outages, to include one for the Wedowee Water Authority.
Type	Emergency Services Protection
Goal	Reduce Randolph County's risk from natural hazards
Hazard(s) Addressed	All
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Wedowee Town Council; Wedowee Water Authority
Estimated Time Frame for Completion	2018
Estimated Cost	\$30,000 each
Funding Sources	HMGP; PDM; Local
Priority	High
Benchmark	Budgetary restraints have prevented this mitigation action item from being implemented thus far.
Mitigation Action 6.1.1	Install community safe rooms.
Type	Structural Projects
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	TH; T
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Wedowee Town Council
Estimated Time Frame for Completion	2020
Estimated Cost	\$130,000 each
Funding Sources	HMGP; ADECA; Local; GERF when available
Priority	High
Benchmark	
	This mitigation action item is new.

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TOWN OF WOODLAND

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**Table 6-52: Woodland
Risk and Vulnerability Overview**

Natural Hazards	Hazard Identification	Prioritized Occurrence Threat	Vulnerability
Thunderstorm	X	7	H
Lightning	X	8	M
Hail	X	6	M
Tornado	X	9	M
Flood/Flash Flood	X	5	M
Drought/Extreme Heat	X	2	M
Winter Storm/Frost Freeze/ Heavy Snow/Ice Storm/Winter Weather/ Extreme Cold	X	3	M
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	X	4	H
Sinkhole/Expansive Soil	X	9	L
Earthquake	X	9	L
Wildfire	X	1	L
Dam/Levee Failure	X	9	L

Sources: NOAA NCDC Storm Events Database; Alabama Forestry Commission; National Forestry Service; Alabama Geological Survey; Participating Jurisdictions

KEY

Hazard Identification: X Affects the Jurisdiction, N/A Not a threat to the jurisdiction

Priority: Hazards are prioritized with the highest threat of occurrence assigned number one based on hazardous events that have occurred within each jurisdiction over the past ten years, with the exception of wildfires that were based on events that have occurred over the past three years.

Some natural hazards have equal threats to a jurisdiction; therefore, their threat number will be the same.

Vulnerability: NA – Not Applicable; not a hazard to the jurisdiction

L – Low Risk; little damage potential (damage to less than 5% of the jurisdiction)

M – Medium Risk; moderate damage potential (damage to 5-10% of jurisdiction, infrequent occurrence)

H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)

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Table 6-53: Woodland’s Thunderstorm Events

3 Thunderstorm Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
WOODLAND	RANDOLPH CO.	AL	05/06/2003	14:38	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	04/30/2005	05:09	CST	Thunderstorm Wind	52 kts. EG	0	0	3.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	06/20/2006	16:35	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Totals:								0	0	7.00K	0.00K

Table 6-54: Woodland’s Lightning Events

1 Lightning Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
WOODLAND	RANDOLPH CO.	AL	06/06/2005	14:30	CST	Lightning		0	0	60.00K	0.00K
Totals:								0	0	60.00K	0.00K

Table 6-55: Woodland’s Hail Events

4 Hail Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
WOODLAND	RANDOLPH CO.	AL	03/19/2003	21:30	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	05/06/2003	14:38	CST	Hail	0.75 in.	0	0	0.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	04/19/2006	14:30	CST	Hail	2.50 in.	0	0	0.00K	0.00K
WOODLAND	RANDOLPH CO.	AL	04/19/2006	15:30	CST	Hail	2.75 in.	0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-56: Woodland’s Tornado Events

0 Tornado Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

No tornado events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-57: Woodland’s Flood/Flash Flood Events

6 Flood/Flash Flood Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/08/2003	20:30	CST	Flood		0	0	300.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/18/2003	13:45	CST	Flood		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/11/2005	00:00	CST	Flood		0	0	1.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	05/07/2003	16:00	CST	Flash Flood		0	0	75.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	07/01/2003	08:00	CST	Flash Flood		0	0	10.00K	0.00K
COUNTYWIDE	RANDOLPH CO.	AL	09/16/2004	10:45	CST	Flash Flood	5	0	0	4.00K	0.00K
Totals:								0	0	390.00K	0.00K

Table 6-58: Woodland’s Drought/Extreme Heat Events

52 Drought/Extreme Heat Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Ini</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/30/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/14/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/05/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/17/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	05/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	10/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Table 6-59: Woodland’s Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events

11 Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database)

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/07/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/08/2007	00:00	CST-6	Frost/freeze		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/12/2010	12:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/25/2010	09:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/28/2005	20:45	CST	Ice Storm		0	0	100.00K	0.00K
RANDOLPH	RANDOLPH	AL	01/09/2011	15:35	CST-	Ice Storm		0	0	0.00K	0.00K

(ZONE)	(ZONE)				6						
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/19/2008	06:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/15/2010	12:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/26/2010	05:00	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	02/09/2011	17:45	CST-6	Winter Weather		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	01/24/2003	00:00	CST	Extreme Cold/wind Chill		0	0	0.00K	0.00K
Totals:								0	0	100.00K	0.00K

Table 6-60: Woodland’s Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events

10 Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events
– 01/01/2003 thru 12/31/2013 (4018 days)
(Source: NOAA NCDC Storm Events Database)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	07/10/2005	16:00	CST	Tropical Storm		0	0	47.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/29/2005	23:30	CST	Tropical Storm		0	0	15.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	08/23/2008	12:00	CST-6	Tropical Depression		0	0	0.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	11/09/2009	14:00	CST-6	Tropical Depression		0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/16/2004	07:30	CST	High Wind	56 kts. EG	0	0	125.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	09/07/2004	00:15	CST	Strong Wind	33 kts. ES	0	0	1.00K	0.00K

RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	06/11/2005	12:00	CST	Strong Wind	40 kts. EG	0	0	4.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	03/09/2006	18:00	CST	Strong Wind	40 kts. EG	0	0	2.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	12/20/2007	18:15	CST-6	Strong Wind	30 kts. EG	0	0	10.00K	0.00K
RANDOLPH (ZONE)	RANDOLPH (ZONE)	AL	04/13/2009	04:30	CST-6	Strong Wind	37 kts. MG	0	0	25.00K	0.00K
Totals:								0	0	231.00K	0.00K

Table 6-61: Woodland’s Sinkhole Events

0 Sinkhole Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/U.S.and AL Geological Survey)

No sinkhole events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-62: Woodland’s Earthquake Events

0 Earthquake Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/U.S. Geological Survey)

No earthquake events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 6-63: Countywide Wildfire Events

96 Wildfire Events – 2010 thru 2013

(Source: Alabama Forestry Commission)

County	Total # of Fires 2010-2013	Average # of Fires Per Year	Total Acres Burned 2010- 2013	Average Acres Burned Per Year	Average Fire Size in Acres
Randolph	96	32	923.65	307.88	9.62

Table 6-64: Woodland’s Dam/Levee Failure Events

0 Dam/Levee Failure Events – 01/01/2003 thru 12/31/2013 (4018 days)

(Source: NOAA NCDC Storm Events Database/Local Input)

No dam/levee failure events occurred or were reported during 01/01/2003 thru 12/31/2013.

**Table 6-65: Town of Woodland
Hazard Probability Assessment**

Natural Hazards	Number of Historical Occurrences	Probability of Future Occurrence	Extent	Area Affected
Thunderstorm	3	30%	>10%	Town wide
Lightning	1	10%	5-10%	Town wide
Hail	4	40%	5-10%	Town wide
Tornado	0	0%	5-10%	Town wide
Flood/Flash Flood	6	60%	5-10%	Town wide
Drought/Extreme Heat	52	>100%	5-10%	Town wide
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	11	>100%	5-10%	Town wide
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	10	10%	>10%	Town wide
Sinkhole/Expansive Soil	0	0%	<5%	Town wide
Earthquake	0	0%	<5%	Town wide
Wildfire (3 year study period)	96	>100%	<5%	Town wide
Dam/Levee Failure	0	0	<5%	Town wide
<i>Source: NOAA NCDC; U. S. Inflation Calculator/Consumer Price Index; USGS ; Local Input; USDA Census of Agriculture; Alabama Forestry Commission; and National Forestry Service; Participating Jurisdictions</i>				
Methodology: Number of historical occurrences is those reported by NOAA NCDC during the 10 year study period, with the exception of wildfire that is a 3 year study period. Probability is expressed by dividing the total number of occurrences by the study period in years. Extent is expressed as the percentage assigned by the jurisdictions' ranking in the vulnerability overview (Table 4-40). Zero denotes no data available to determine the probability, extent, or affected area.				

Table 6-66: Woodland’s Critical Facilities

CRITICAL FACILITIES – WOODLAND	
FACILITY TYPE	REPLACEMENT VALUE
Bethel East VFD, Woodland (also listed under the county’s critical facilities)	\$1,260,000
Woodland VFD, Woodland (also listed under the county’s critical facilities)	\$1,260,000
New Hope VFD, Woodland (also listed under the county’s critical facilities)	\$1,260,000
Woodland High School, Woodland (also listed under the county’s critical facilities)	\$14,316,760
Total	\$18,096,760

(Source: HAZUS-MH 2011)

**Table 6-71: Town of Woodland
Estimated Loss Projections from Specified Hazards**

Natural Hazards	Average Occurrences (per year)	Total Deaths	Total Injuries	Average Death and Injury Loss (per event)	Average Crop and Property Loss (per event)	Projected Loss (per event)
Thunderstorm	0.3	0	0	\$0	\$700	\$763
Lightning	0.1	0	0	\$0	\$6,000	\$6,540
Hail	0.4	0	0	\$0	\$0	\$0
Tornado	0.0	0	0	\$0	\$0	\$0
Flood/Flash Flood	0.6	0	0	\$0	\$39,000	\$42,510
Drought/Extreme Heat	5.2	0	0	\$0	\$0	\$0
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	1.1	0	0	\$0	\$10,000	\$10,900
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	1.0	0	0	\$0	\$23,100	\$25,179
Sinkhole/Expansive Soils	0.0	0	0	\$0	\$0	\$0
Earthquake	0.0	0	0	\$0	\$0	\$0
Wildfire (3 year study period)	9.6	0	0	\$0	\$18,240	\$19,882
Dam/Levee Failure	0.0	0	0	\$0	\$0	\$0

Sources: NOAA NCDC; U.S. Inflation Calculator/Consumer Price Index; Local Input; USDA Census of Agriculture; Alabama Forestry Commission and National Forestry Service; Alabama Geological Survey

Methodology: Average occurrences were expressed annually by dividing the total number of occurrences by the ten-year period. Deaths and injuries were taken from the hazard event data. Average losses were calculated by dividing the total amount of all damages by the total number of occurrences during the ten-year period with the exception of wildfire which takes the average fire size as noted in Table 4-15 multiplied by average amount per acre (\$1,900). Projected loss expresses an estimated damage amount per future occurrence by converting the average loss figure from a midpoint of 2008 dollars to 2014 dollars (\$1 in 2008 = \$1.09 in 2014...a cumulative rate of inflation of 9%). Zero denotes no data available to determine the average occurrences, average loss or projected loss per event.

Woodland Mitigation Action Plan

The Town of Woodland recognizes the importance of mitigation planning and will incorporate mitigation planning in planning documents as they are revised or initiated.

Mitigation Status

During the plan update, mitigation actions were reviewed in order to identify completed, deferred, or deleted actions from the previous plan and incorporate actions added during annual updates. **Table 6-68** shows the Town of Woodland’s updated mitigation actions. During the plan update process, no new mitigation actions were identified and added to the plan.

Table 6-72: Town of Woodland’s Mitigation Actions	
Mitigation Action 1.1.1	Make application and/or commit/continue to participate in the NFIP if mapped.
Type	Prevention
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	FL
Applies to new/existing asset(s)	Existing
Local Planning Mechanism	Randolph County EMA
Estimated Time Frame for Completion	2016
Estimated Cost	N/A
Funding Sources	Local
Priority	Low
Benchmark	The Town of Woodland is not mapped a flood zone; therefore, the town is not a NFIP participating community.
This mitigation action item is new.	

Mitigation Action 5.2.1	Purchase emergency generators for post disaster mitigation.
Type	Emergency Services Protection
Goal	Reduce Randolph County's risk from natural hazards
Hazard(s) Addressed	All
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Woodland Town Council
Estimated Time Frame for Completion	2019
Estimated Cost	\$30,000 each
Funding Sources	Local
Priority	High
Benchmark	
	This mitigation action item is new.
Mitigation Action 6.1.1	Install community safe rooms.
Type	Structural Projects
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	TH; T
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Woodland Town Council
Estimated Time Frame for Completion	2020
Estimated Cost	\$130,000 each
Funding Sources	ADECA; Local; GERP when available
Priority	High
Benchmark	
	This mitigation action item is new.

Mitigation Action 6.1.2	Retrofit Town Hall and Woodland Senior Citizens Center to withstand winds of 200 MPH (the recommended wind rating based on wind zones in the southeast)
Type	Structural Projects
Goal	Establish a comprehensive countywide hazard mitigation system
Hazard(s) Addressed	TH; T
Applies to new/existing asset(s)	New and Existing
Local Planning Mechanism	Woodland Town Council
Estimated Time Frame for Completion	2020
Estimated Cost	TBD
Funding Sources	ADECA; Local
Priority	High
Benchmark	Budgetary restraints have prevented this mitigation action item from being implemented thus far.

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SECTION 7: MITIGATION PLAN MAINTENANCE

Annual Review and Monitoring

The FR Subsection 201.6 (d) (3) (4) requires the County Hazard Mitigation Plan to be revised and updated every five years. “A local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval within 5 years in order to continue to be eligible for mitigation project grant funding.Managing states will review the plans within 45 days of receipt of the plans, whenever possible, and provide a copy of the approved plans to the Regional Office.”

The Hazard Mitigation Planning Committee may re-evaluate the plan after a disaster has occurred to make sure that mitigation of the hazard was addressed properly. At a minimum, the Hazard Mitigation Planning Committee will monitor, evaluate, and amend this plan annually. During publicized meetings of various kinds (mutual aid, LEPC, etc.), public participation, as well as participation from neighboring counties, is encouraged to allow the public an opportunity to participate in the process. In addition, the Hazard Mitigation Planning Committee will continually review a variety of resources and examine conditions, which may affect mitigation activities for natural and technological hazards. The committee will review existing plans, policies, maps, and other documentation such as, but not limited to:

- NFIP flood panels
- Post-disaster redevelopment models
- Critical facilities lists and maps
- Existing land-use maps
- Future land-use maps
- Current zoning maps
- Land development codes
- Governing body codes and resolutions
- Comprehensive plans, including drainage studies
- Emergency Operations Plan
- Standard Operating Guidelines
- Various other plans and/or studies related to hazard mitigation

Following the tornado outbreak of April 2011, a meeting was held that resulted in a limited amendment to the 2010 plan being made to include community safe rooms and generators to critical facilities (see below). No official minutes or sign-in sheets were documented at this meeting. The public was invited to this meeting; however, no citizen attended. Annually, however, the plan maintenance process described in the 2010 plan revision was not successful; therefore, the following information is the new process for annual review and monitoring of this plan.

The plan may be reviewed at any time at the request of any local government, by the Chairman of the Hazard Mitigation Planning Committee, or at the discretion of the Randolph County EMA Director. Local governments may submit a formal letter to the Randolph County EMA Director/Chairman of the Randolph County Hazard Mitigation Planning Committee requesting a review of the plan. The public may also request review of the plan by submitting a formal letter to the Randolph County EMA Director/ Chairman of the Randolph County Hazard Mitigation Planning Committee requesting a review of the plan. In the future, the County EMA will strive to get jurisdictions with websites to post the Hazard Mitigation Plan and provide a way for the public to comment online. Citizen Input on Hazard Mitigation Planning forms will be placed in public places, to include on the courthouse bulletin board, in the local government buildings, and in the library to provide the public a chance to provide feedback during the plan's implementation, monitoring, and evaluation process.

The EMA Director/HMPC Chairperson will serve as the point of contact for all amendments to the plan and will coordinate all additions or deletions of actions to the plan, as needed. The EMA Director/HMPC Chairperson will be responsible for informing the local governing bodies of any amendments made to the plan. Any local government seeking to add an action to the plan will be responsible for providing support for the action in the form of a resolution if, and only if, the funding source(s) requires so. The entire plan will be updated on a five-year planning cycle. The EMA Director/HMPC Chairperson will begin the update process 18-24 months prior to the plan's expiration date in order to allow adequate time for the planning update process to be completed.

Regular plan monitoring will be achieved through the County EMA's efforts to track mitigation activities and the Hazard Mitigation Planning Committee's continual review of

resources and conditions. The EMA Director/HMPC Chairperson is the responsible person for the review of the plan to include monitoring, evaluating, and updating of the plan, reconvening the committee only if additional information is available or the EMA Director/HMPC Chairperson requires assistance. The annual review of the plan will take place in June of each year. Although the entire plan's progress will be monitored, evaluated, and updated on a continuous basis throughout the five-year timeframe, the annual review will begin by the EMA Director/HMPC Chairperson emailing a survey form to the HMPC members asking them for their input and giving them a two-week deadline on returning the information to the EMA Director/HMPC Chairperson. Following the two-week deadline, the EMA Director/HMPC Chairperson will consolidate the survey forms and act upon the findings as needed and in the methods described below. Documentation will be kept from each review, to include sign-in sheets, agendas, public notices, emails, survey forms, etc. if applicable.

The County EMA will conduct an annual evaluation of the plan, reconvening the committee only if additional information is available or the EMA Director/HMPC Chairperson requires assistance. The EMA Director/HMPC Chairperson will document the annual evaluation and note the findings. The evaluation will consider several basic factors including:

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

Additionally, the County EMA will contact local agencies (and other individuals and organizations as appropriate) to determine if updates have been made to certain elements of the local plans as part of the annual review process. The purpose of this effort is to ensure that local information about risk, goals, projects, and mitigation strategies included in the plan remains current.

In the event modifications to the plan are warranted as a result of the annual review or

other conditions, the HMPC will oversee and approve all revisions to the plan. Conditions which might warrant revisions to this plan would include, but not be limited to, special opportunities for funding, a response to a natural disaster, and changes in jurisdictions' capabilities to implement the plan. The public and neighboring counties will be encouraged and provided the chance to participate in the review of the updated plan, as well as in the plan update itself. Before any revisions are submitted to the jurisdictions for adoption, a notice may be placed in the local newspaper or posted in public facilities, allowing an opportunity for the public to review the proposed amendments at the EMA, submit written comments, and/or present comments at a public meeting. The HMPC will then submit all revisions for adoption by jurisdictions affected by the changes. A copy of the plan revisions will be submitted to all holders of the original plan in a timely manner.

The following limited amendment was made for the Randolph County Multi-Jurisdictional Hazard Mitigation Plan during the past five years:



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

FEMA

July 20, 2011

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

Reference: Acknowledgement of Receipt of Limited Amendment to the Randolph County
Multi-jurisdictional Hazard Mitigation Plan Update

Dear Ms. Peery:

We are pleased to have received as information, the Limited Amendment for the Randolph County Multi-jurisdictional Hazard Mitigation Plan Update, dated July 5, 2011. Although the Limited Amendment does not require FEMA review and approval, it confirms the community's commitment to implement the Federal requirements for notifying us of any minor or major changes made to the core hazard mitigation plan.

We continue to encourage each Community to conduct a plan update process within one (1) year of being included in a Presidential Disaster Declaration or of the adoption of major modifications to their local Comprehensive Land Use Plan or other plans that affect hazard mitigation or land use and development. When your Plan is updated, currently scheduled for March 19, 2015, it must be resubmitted through the State as a "plan update" and is subject to a formal review and approval by our office at that time.

If you or the Randolph County staff have any questions or need additional information, please do not hesitate to contact Jerry Gereaux, of the Hazard Mitigation Assistance Branch, at (770) 220-5372, or Linda L. Byers of my staff, at (770) 220-5498.

Sincerely,

Robert E. Lowe, Chief
Risk Analysis Branch
Mitigation Division

Randolph County Hazard Mitigation Plan Amendment

Whereas: The Disaster Mitigation Act of 2000 requires jurisdictions (states, counties, towns and special districts) to have a Hazard Mitigation Plan; and

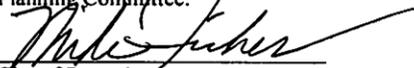
Whereas: The Randolph County Hazard Mitigation Planning Committee recognizes the vulnerability of the County's resources, property and operation to the impacts of disasters and emergencies; and

NOW THEREFORE BE IT RESOLVED BY THE Randolph County Hazard Mitigation Planning Committee that the Randolph County Multi-Jurisdictional Hazard Mitigation Plan be amended to include:

Name of City/Town	Project
Randolph County	Individual and Community Storm Shelters
Randolph County	Generators for Critical Infrastructure
City of Roanoke	Individual Storm Shelters
City of Roanoke	Generators for Critical Infrastructure
Town of Wadley	Individual Community Shelters
Town of Wadley	Generators for Critical Infrastructure
Town of Wedowee	Individual and Community Storm Shelters
Town of Wedowee	Generators for Critical Infrastructure

ADOPTED AND APPROVED this the 16th day of June, 2011.

Randolph County Hazard Mitigation
Planning Committee:



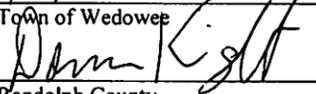
City of Roanoke



Town of Wadley



Town of Wedowee



Randolph County
Emergency Management



Randolph County Administrator

Incorporation into Existing Planning Mechanisms

This document will be incorporated into the Randolph 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 Roanoke is the only entity within the County that has participated in Comprehensive Planning and is anticipating adoption of their Comprehensive Plan under development within the next six months). The Randolph County Hazard Mitigation Plan update has also been incorporated into the East Alabama Regional Planning Development Commission's (EARPDC) Comprehensive Economic Development Strategy (CEDS). The EARPDC covers the East Alabama counties of Calhoun, Chambers, Cherokee, Clay, Cleburne, Coosa, Etowah, Randolph, Talladega, Tallapoosa.

Incorporation of the hazard mitigation plan will vary for each jurisdiction based on existing planning methods and processes. Jurisdictions with planning commissions and respective zoning ordinances and building codes will incorporate mitigation plan elements as appropriate into their review of new developments.

Many jurisdictions have no zoning or existing plans of any type other than this mitigation plan (see Table 1-1) and do not have the resources or funding to prepare them. In these cases, where applicable, the mitigation plan elements will be incorporated into local development decisions by the appropriate local coordinating body in order to determine funding, prioritization, and review of new development activities. At such time as the jurisdiction does adopt zoning and building codes they will reflect the goals and objectives set forth in this plan. Further, any jurisdiction preparing or updating a comprehensive plan will reflect their hazard mitigation goals and objectives in their plan. These updates will occur as budget and time allow.

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 Capitol Improvements Plans) on a voluntary basis.

Continued Public Participation

The existing public involvement process has served the County and municipalities well in the past and the Hazard Mitigation Planning Committee has determined no changes are necessary in the way that continued public participation will be obtained. Therefore, the process of continued public participation remains the same as stated in the 2010 plan update.

The EMA Director will have the obligation of notifying the public and stakeholders of the annual plan review which shall be incorporated in the public announcement for the LEPC meetings. Written comments on the plan will be accepted by the Randolph County EMA at any time. The plan will be available to the public via the Randolph County EMA. Copies of the completed, formally adopted plan will be maintained at each municipality, located at the governmental administrative offices. The Randolph County Commission will maintain a copy at the Commission Offices and at the Randolph County EMA Directors Office.

SECTION 8: APPROVAL AND IMPLEMENTATION

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RANDOLPH COUNTY EMERGENCY MANAGEMENT AGENCY

The purpose of hazard mitigation is to implement action that eliminate the risk from hazards, or reduce the strength of the effects of hazards on people and property. Mitigation actions are both short-term and long-term activities that reduce the cause or occurrence of hazards; reduce exposure to hazards; or reduce effects of hazards through various means to include preparedness, response and recovery measures.

This plan update applies to all local agencies, boards, commissions, and departments assigned mitigation responsibilities, and to others as designated by the Randolph County Commission or Director of the Randolph County Emergency Management Agency.

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

Randolph County will comply with all applicable state and federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 Code of Federal Regulations (CFR) 13.11c. Randolph County will amend its plan whenever necessary to reflect changes in local/state and/or federal laws and statutes as required in 44 CFR, 13.11d. At a minimum, the Randolph County EMA will review and if necessary, update the plan every five years from the date of approval in accordance with 44 CFR, 201.6 (5) (d) (3) in order to continue program eligibility.

As the Director of the Randolph County Emergency Management Agency, I hereby adopt this plan update in accordance to the powers delegated to me and accept this plan update for implementation in order to protect the lives and property of the citizens of Randolph County, Alabama.

Date

Donnie Knight, Director
Randolph County Emergency Management Agency

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County of Randolph

2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan Update

Resolution of Adoption

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

WHEREAS, the County of Randolph participated in the updating of a multi-jurisdictional plan, the Randolph County Multi-Jurisdictional Hazard Mitigation Plan; and

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

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

NOW THEREFORE, BE IT RESOLVED by the County Commission that the County of Randolph adopts the 2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan update, and resolves to execute the actions in the plan.

ADOPTED, this _____ day of _____, 2015 at the meeting of the County Commission.

Chairman, Randolph County Commission

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City of Roanoke

2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan Update

Resolution of Adoption

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

WHEREAS, the City of Roanoke participated in the updating of a multi-jurisdictional plan, the Randolph County Multi-Jurisdictional Hazard Mitigation Plan; and

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

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

NOW THEREFORE, BE IT RESOLVED by the City Council that the City of Roanoke adopts the 2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan update, and resolves to execute the actions in the plan.

ADOPTED, this _____ day of _____, 2015 at the meeting of the City Council.

President, Roanoke City Council

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Town of Wadley

2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan Update

Resolution of Adoption

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

WHEREAS, the Town of Wadley participated in the updating of a multi-jurisdictional plan, the Randolph County Multi-Jurisdictional Hazard Mitigation Plan; and

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

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

NOW THEREFORE, BE IT RESOLVED by the Town Council that the Town of Wadley adopts the 2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan update, and resolves to execute the actions in the plan.

ADOPTED, this _____ day of _____, 2015 at the meeting of the Town Council.

President, Wadley Town Council

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Town of Wedowee

2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan Update

Resolution of Adoption

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

WHEREAS, the Town of Wedowee participated in the updating of a multi-jurisdictional plan, the Randolph County Hazard Mitigation Plan; and

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

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

NOW THEREFORE, BE IT RESOLVED by the Town Council that the Town of Wedowee adopts the 2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan update, and resolves to execute the actions in the plan.

ADOPTED, this _____ day of _____, 2015 at the meeting of the Town Council.

President, Wedowee Town Council

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Town of Woodland

2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan Update

Resolution of Adoption

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

WHEREAS, the Town of Woodland participated in the updating of a multi-jurisdictional plan, the Randolph County Multi-Jurisdictional Hazard Mitigation Plan; and

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

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

NOW THEREFORE, BE IT RESOLVED by the Town Council that the Town of Woodland adopts the 2015 Randolph County Multi-Jurisdictional Hazard Mitigation Plan update, and resolves to execute the actions in the plan.

ADOPTED, this _____ day of _____, 2015 at the meeting of the Town Council.

President, Woodland Town Council

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APPENDIX I

Local Mitigation Plan Review Tool

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APPENDIX I:

LOCAL MITIGATION PLAN REVIEW TOOL

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

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

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

Jurisdiction: Randolph County	Title of Plan: Randolph County., Alabama Multi-Jurisdictional Hazard Mitigation Plan	Date of Plan: April 2015
Local Point of Contact: Donnie Knight	Address: 751 Main Street south P.O. Box 228 Wedowee, AL 36278	
Title Director		
Agency: Randolph County EMA		
Phone Number: 256-357-0014	E-Mail: Chiefknight2002@yahoo.com	
State Reviewer: Linda Egglar	Title: Program Coordinator	Date April 7, 2015

FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region R/IV		
Plan Not Approved		
Plan Approvable Pending Adoption		
Plan Approved		

**SECTION 1:
REGULATION CHECKLIST**

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

Key: [LHA COMMENTS](#)

1. REGULATION CHECKLIST	Location in Plan	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or	Met	Met
ELEMENT A. PLANNING PROCESS			
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	Pages 17-18 who represented; May 20, 2014 Meeting Pages 21-24, and October 11, 2014 pages 25-31;	X	

1. REGULATION CHECKLIST	Location in Plan		Not
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or	Met	Met
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	Pages 17-18; Page 21-Newspaper advertisement; page 26- emailed and mailed invitation	X	
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	Page 33-34	X	
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	Pages 36 and 38	X	
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	Page 34	X	
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	Page 263-266	X	
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT			

1. REGULATION CHECKLIST	Location in Plan		Not
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or	Met	Met
<p>B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))</p>	<p>Hazardous Profiles Thunderstorms-Pages 78-79; Lightning-Pages 80-81; Hail-Page 84-85; Tornado-Pages 88 and 93; Floods/Flash-Page 94-95; Drought/Extreme Heat-Pages 102, 106 and 109 Winter Storms/Frost Freezes/Heavy Snows/Ice Storms/Winter Weather/Extreme Cold-Pages 110-111; Hurricanes/Tropical Storms/Tropical Depressions/High Winds/Strong Winds-Pages 114-115; Sinkholes/Expansive Soils-Pages 120-121; Earthquakes-Pages 126-128; Wildfires-Page 138-139</p>	<p>X</p>	

1. REGULATION CHECKLIST	Location in Plan	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or	Met	Met
<p>B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))</p>	<p>Thunderstorms- Pages 78-79; Lightning-Pages 81-82; Hail-Page 85-86; Tornado-Page 88 Floods/Flash-Page 97; Drought/Extreme Heat-Pages 102 and 104; Winter Storms/Frost Freezes/Heavy Snows/Ice Storms/Winter Weather/Extreme Cold-Pages 110-111; Hurricanes/Tropical Storms/Tropical Depressions/High Winds/Strong Winds-Pages 116-117; Sinkholes/Expansive Soils-Pages 122-123; Earthquakes-Pages 131 and 135; Wildfires- Page 138-140</p>	<p>X</p>	

1. REGULATION CHECKLIST		Location in Plan	
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or	Met	Not Met
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	Thunderstorms- Pages 78-79; Lightning- Pages 81-82; Hail-Page 85-86; Tornado- Page 88 Floods/Flash- Page 97; Drought/Extreme Heat- Pages 102 and 104; Winter Storms/Frost Freezes/Heavy Snows/Ice Storms/Winter Weather/Extreme Cold- Pages 110-111; Hurricanes/Tropical Storms/Tropical Depressions/High Winds/Strong Winds- Pages 116-117; Sinkholes/Expansive Soils- Pages 122-123; Earthquakes- Pages 131 and 135; Wildfires- Page 138-140	X	
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	Page 99 -101	X	
ELEMENT C. MITIGATION STRATEGY			
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	Page 36 and 38	X	

1. REGULATION CHECKLIST Regulation (44 CFR 201.6 Local Mitigation Plans)	Location in Plan		Not Met
	(section and/or	Met	
C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	Pages 99-100	X	
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	Pages 99-100	X	
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	Randolph County Pages 174-176; City of Roanoke, pages 198-200; Town of Wadley, pages 218-220; Town of Wedowee, 241-243; Town of Woodland, pages 259-261	X	
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	Mitigation Strategy page 170; Mitigation Status page 171; Mitigation Implementation page 172	X	
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	Pages 36 and 38	X	
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (applicable to plan updates only)			
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	page 45	X	

1. REGULATION CHECKLIST		Location in Plan	
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or	Met	Not Met
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	See Benchmarking Randolph County Pages 174-176; City of Roanoke, pages 198-200; Town of Wadley, pages 218-220; Town of Wedowee, 241-243; Town of Woodland, pages 259-261	X	
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	Page 171	X	
ELEMENT E. PLAN ADOPTION			
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))		Adoptable upon FEMA approval	
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))		Adoptable upon FEMA approval	
<u>ELEMENT E: REQUIRED REVISIONS</u>			
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (OPTIONAL FOR STATE REVIEWERS ONLY; NOT TO BE COMPLETED BY FEMA)			
F1.			
F2.			

1. REGULATION CHECKLIST	Location in Plan		Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or	Met	Met
<u>ELEMENT F: REQUIRED REVISIONS</u>			

SECTION 2:

PLAN ASSESSMENT

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

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

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

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

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

A. Plan Strengths and Opportunities for Improvement

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

Element A: Planning Process

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

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

Element B: Hazard Identification and Risk Assessment

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

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

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

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

Element C: Mitigation Strategy

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

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

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

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

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

B. Resources for Implementing Your Approved Plan

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

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

SECTION 3:

MULTI-JURISDICTION SUMMARY SHEET (OPTIONAL)

INSTRUCTIONS: For multi-jurisdictional plans, a Multi-jurisdiction Summary Spreadsheet may be completed by listing each participating jurisdiction, which required Elements for each jurisdiction were ‘Met’ or ‘Not Met,’ and when the adoption resolutions were received. This Summary Sheet does not imply that a mini-plan be developed for each jurisdiction; it should be used as an optional worksheet to ensure that each jurisdiction participating in the Plan has been documented and has met the requirements for those Elements (A through E).

MULTI-JURISDICTION SUMMARY SHEET												
#	Jurisdiction Name	Jurisdiction Type (city/borough/ township/ village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Requirements
1	Randolph	County	Donnie Knight		chiefknight2002@yahoo.com	256-357-0014	✓	✓	✓	✓		
2	Roanoke	City	Donnie Cash, Street Dept. Superintendent		Donnie.cash@yahoo.com	334-863-7666	✓	✓	✓	✓		
3	Wadley	Town					✓	✓	✓	✓		
4	Wedowee	Town					✓	✓	✓	✓		
5	Woodland	Town					✓	✓	✓	✓		

MULTI-JURISDICTION SUMMARY SHEET

#	Jurisdiction Name	Jurisdiction Type (city/borough/ township/ village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Requirements
6												
7												
8												
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