Autauga County Hazard Mitigation Plan



2015 Plan Update



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Prepared under the direction of the Hazard Mitigation Planning Committee, the Local Emergency Planning Committee and the Autauga County Emergency Management Agency by:



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Introduction

Autauga County Hazard Mitigation Plan

The Autauga County Hazard Mitigation Plan is a multi-jurisdictional, multihazard mitigation plan. This plan fulfills the requirements set forth by the Federal Disaster Mitigation Act of 2000 (DMA 2000). It meets all eligibility requirements set forth by the Federal Emergency Management Agency (FEMA) for grant assistance. To date, assistance is available from the following grant programs: the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance Program (FMA), and Pre-Disaster Mitigation Program (PDM). The Biggert-Waters Flood Insurance Reform Act of 2012 eliminated the Repetitive Flood Claims Grant Program (RFC) and Severe Repetitive Loss Program (SRL) and incorporated these elements into the FMA Program. The FMA Program now allows for up to 100% federal cost share for severe repetitive loss properties; 90% federal cost share for repetitive loss properties; and 75% federal cost share for repetitive loss properties.

This plan covers the entire county including all unincorporated areas, the City of Prattville, the Town of Autaugaville, and the Town of Billingsley.

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 Autauga County Emergency Management Agency (AEMA) and Lee Helms Associates, L. L. C. entered into an agreement to update the 2009 plan.

Scope

The Autauga County Hazard Mitigation Plan includes all incorporated and unincorporated areas in Autauga County. All hazards that may affect Autauga County and its residents are identified. 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

"Mitigation is the cornerstone of emergency management. It's the ongoing effort to lessen the impact disasters have on people's lives and property through damage prevention and flood insurance (http://www.fema.gov/fima/)." The Autauga County Hazard Mitigation Plan is an effort to identify mitigation strategies that address the hazards to which Autauga County is the most vulnerable. This plan is only one of many actions Autauga County will take to achieve a safer, more hazard resistant environment for its residents.

Section One: Planning Process

Plan update process

The hazard mitigation planning update process began in September of 2014 after Autauga County EMA was awarded a planning grant from the Alabama Emergency Management Agency (AEMA). The Autauga County EMA received 75 percent funding from the Federal Emergency Management Agency (FEMA). The remaining 25 percent was provided locally through in-kind services.

The Autauga County mitigation plan is the representation of the County's commitment to reduce risks from natural hazards. In doing this, the number, location, extent and probability of natural 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), and the general public were invited and encouraged to participate.

Continued Public Participation

After the initial plan was completed in 2005 and revision made in 2009, it was made available for ongoing public view and comment at the Autauga County Emergency Operations Center, all City and Town Halls, and the Autauga County Commission. Each local government was instructed that amendments or additions could be made to that plan at any time. Additional opportunities for comment were provided at Local Emergency Planning Committee meetings held by the Autauga County EMA. 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. Autauga County and the City of Prattville are the only jurisdictions having a website at this time. The City of Billingsley and the Town of Autaugaville do not have websites.

Hazard Mitigation Planning Committee

Before beginning the plan update process, LHA staff coordinated with Mr. Ernie Baggett, Autauga County EMA Director, to review the hazard mitigation planning committee. Existing members were confirmed to continue service. Replacements were made to fill vacancies as needed and new members were added to represent local governments participating in the plan for the first time. Mr. Baggett assumed the responsibility as Chairman of the Hazard Mitigation Planning Committee and also invited the Local Emergency Planning Committee (LEPC) to participate in the planning process. The Hazard Mitigation Committee consisted of the following members:

Autauga County

Ernie Baggett, Autauga County EMA Director Melissa Carpenter, Autauga County 911, Director Shettela Carroll, Autauga County 911, Operations Manager Steve Golsan, Autauga County Commission, Treasurer/Administrator Neal Messick, Autauga County Schools, Transportation Supervisor Crystal Ousley, Autauga County Sheriff, Administrative Assistant Terry Poole, Autauga County 911, Dispatcher Roxanne Royal, Autauga County EMA Connie Scott, Autauga County Revenue, Chief Mapper Van Smith, Autauga County Commissioner Gary Weaver, Autauga County EMA

City of Prattville

Terry Brown, Prattville Fire Department, Fire Chief Bill Gillespie, Mayor Dallis Johnson, Prattville Fire Department, Fire Marshall Don Johnson, Prattville Baptist Hospital, Charge Nurse Ryan Pecharka, City of Prattville GIS Coordinator Michael Whaley, Prattville Fire Department, Battalion Chief

Town of Autaugaville

F. B Ward, Mayor

Town of Billingsley

David Chandler, Billingsley Volunteer Fire Department, Assistant Chief/ West Autauga Water

Others

Patrick Aman, Williams Gas Pipeline, Senior Operations Manager Todd Barrett, Williams Gas Pipeline, Operations Tech Supervisor Mary Conway, Alabama Department of Public Health Patrick Cook, Alabama Forestry Commission, Ranger Rhonda Johnson, Dallas County EMA Eric Morgan, Prattville Baptist Hospital, Director of Pharmacy

Participation Guidelines

The Chairman of the Hazard Mitigation Planning Committee set forth a list of participation guidelines for the Hazard Mitigation Planning Committee:

- At least one appointed representative from each participating local government should attend all committee meetings. In the event of extenuating circumstances, the local government may send a non-appointed representative. If a committee member cannot attend the meetings, he or she will be contacted in person, by phone, by email, or by mail in order to obtain the jurisdiction's participation in the plan revision. Committee members are also encouraged to attend neighboring communities' HMPC meetings and participate in their plan updates. Each local government should submit requested information to Autauga County EMA or LHA in a timely manner. Local governments should meet timeframes and deadlines established by the committee. In the event of extenuating circumstances, the Hazard Mitigation Planning Committee Chairman may approve late submissions.
- Committee members should fully cooperate with the Autauga County EMA and LHA staff during the update and finalization of the Autauga County Hazard Mitigation Plan by providing the best available information necessary to complete the plan.
- Each participating local government must submit a list of prioritized mitigation actions. The local government must provide mitigation measures and the method used to prioritize the actions. The selected actions must identify the hazard(s) being mitigated.

Committee and Public Meeting Schedule and Participation

Each local government was invited to participate in each of the committee meetings. In the event they were unable to attend the meetings they were required to obtain meeting materials from the Autauga County EMA or LHA prior to or immediately following the missed meeting. Meeting materials were completed and returned via mail, fax, email, or by scheduling an individual meeting with the Autauga County EMA and/or LHA for the local government to be counted as an active participant in the planning process. Surrounding neighbors were invited by email and encouraged to attend all committee meetings and provide input. The public was also invited and encouraged to participate in all meetings. Public meeting notices were posted on public bulletin boards and community event boards two weeks prior to the meeting date and included contact information for assistance. In the event a meeting was rescheduled, a copy of the email to committee members telling of the new date and pertinent meeting information was placed (pubic place). Attendees at the meetings were asked to group themselves by jurisdiction in order to review and complete meeting materials that required collaboration, and provide other needed data. Some individuals participated with and contributed to more than one jurisdiction as deemed appropriate. A "Citizen Input on Hazard Mitigation Plan" form (sample found in this section) was available at all meetings for general public citizens to complete. Committee representatives were asked to take these forms and for their concerned citizens to complete. .

The initial public meeting of the Autauga County Hazard Mitigation Planning Committee was held on September 24, 2014 at 10 a.m. Autauga County Commission Chambers located at 135 N. Court Street, Suite B, Prattville, Alabama 36067-3001. No public citizens attended the meeting.

The mid-term public meeting of the Autauga County Hazard Mitigation Planning Committee was held on March 24, 2015 at 10 a.m. at Autauga County Commission Chambers located at 135 N. Court Street, Suite B, Prattville, Alabama 36067-3001. This meeting was to provide the public a chance to provide input on the plan's development prior to the plan's approval by FEMA and adoptions by the participating jurisdictions. No public citizens attended the meeting but "Citizen Input on Hazard Mitigation Plan" forms were collected by the Autauga County EMA and a combined form with all information is included. The information gathered from these forms were considered and made a part of this plan update.

The final public meeting of the Autauga County Hazard Mitigation Planning Committee will be held following FEMA's plan approval pending adoptions. This meeting will be for the public to have final input prior to jurisdictions adopting the plan and consequently the jurisdictions adopting the plan.

PUBLIC MEETING POSTING



AUTAUGA EMA

Morgan. Kristen

From:	Morgan. Kristen				
Sent:	_	Monday, September 22, 2014 2:31 PM			
To:	'lkyle.glover@autauga.com'; 'mmckenzie@TENASKA.com'; Chris Newton				
	(chrisn@ema.alabama.gov); 911 Carl Johnson Forward; 'Chris Hall';				
	maburychief@aol.com; 'grover.henry@redcross.org'; 'Autauga County Engineer'; 'Whit				
	Moncrief'; 'David Chandler'; Adam Ball (Autauga.County@forestry.alabama.gov); Anderson, Robby; Ann Salter; ASO Herbie Johnson Fwd; ASO Joe Sedinger Fwd;				
	Autauga Co. Rescue	Squad (acrs@knology.net)	; Bill Morgan (wb4bil@gmail.com);		
	bmorgan@autaugal	baptist.org; Brown, Terry; C	arpenter, Melissa; Cecil Boatwright		
	(cboatwright@TENA	SKA.com); 'Charles.Gray@a	dph.state.al.us'		
	(Charles.Gray@adph.state.al.us); Chief Surles; Chip Hicks (fthicks@baptistfirst.org); Clay				
	McConnell (jcmcconn@southernco.com); Connell, Anthony; David Chandler; Duke, Joel; Ginger Henry (ghenry@baptistfirst.org); 'herbie.johnson@autaugasheriff.org'				
	(herbie.jobnson@au	ry@baptistrifst.org); 'nerbie	Jonnson@autaugasheriff.org' Dallis; 'Lance Messer (Bush Hog)'		
	(lance.messer@bush	hog.com): lccarswell@knol	ogy.net; Linda Chandler; MARK CAFFEY		
	(plvfdchief@yahoo.c	om); Marty Roney (mroney	@gannett.com); Mayor; Mayor Davis;		
	Pentecost Volunteer	Fire Department ; 'spence.	agee@acboe.net'		
			oson, Mark, Whaley, Michael; Yvonne		
Cc		Daces.edu); CityCouncil			
	Bart Leswick; 'pvanderwal@prattvillechamber.com'; garybarron68@gmail.com; Charles Hillebrand; kylewglover@aol.com; 'van.smith@autauga.com'; David Chandler (dcsr333				
	@gmail.com)		addgazon, bora chandler (d.31355		
Subject:	REMINDER- Hazard	Mitigation Meeting			
'racking:	Recipient	Defivery	Read		
	'lkyle.glover@autauga.co	m'			
	'mmckenzie@TENASKA.c	om'			
	Chris Newton (chrisn@erna,alabama.go	v)			
	911 Carl Johnson Forward	i i			
	'Chris Hall'				
	maburychief@aoi.com				
	'grover.henry@redcross.o	ng'			
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	'Autauga County Enginee	4			
	'Autauga County Enginee 'Whit Moncrief'	*			
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	'Whit Moncrief' 'David Chandler'				
	'Whit Moncrie?' 'David Chandler' Adam Ball				
	'Whit Moncrie? 'David Chandler' Adam Bali (Autauga.County@forestr				
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AUTAUGA EMA

Recipient	Delivery	Reed
Brown, Terry		Read: 09/22/2014 5:34 PM
Carpenter, Melissa		Read: 09/22/2014 2:32 PM
Cecil Boatwright (cboatwright@TENASKA.com)		
'Charles.Gray@adph.state.al.us' (Charles.Gray@adph.state.al.us)		
Chief Suries	Failed: 09/22/2014 2:31 PM	
Chip Hicks (Rhicks@baptistfirst.org)		
Clay McConnell (jcmcconn@southemco.com)		
Connell, Anthony		Deleted: 09/22/2014 3:15 PM
David Chandler		
Duke, Joel		Read: 09/22/2014 2:32 PM
Ginger Henry (ghenry@baptistfirst.org)		
'herbie.johnson@autaugasheriff.org (herbie.johnson@autaugasheriff.org		
Johnson, Dallis		Read: 09/22/2014 4:15 PM
'Lance Messer (Bush Hog)' (iance.messer@bushhog.com)		
lccarswell@knology.net		
Linda Chandler		
MARK CAFFEY (plvfdchief@yahoo.com)		
Marty Roney (mroney@gannett.com)		
Mayor		
Mayor Davis		
Pentecost Volunteer Fire Department		
'spence.agee@acboe.net' (spence.agee@acboe.net)		
Steve Golsan		
Thompson, Mark		Read: 09/22/2014 2:58 PM
Whaley, Michael		Read: 09/22/2014 4:30 PM
Yvonne Thomas (thomasyd@aces.edu)		
CityCouncil		
Bart Leswick		
'pvanderwal@prattvillechamber.con		
garybarron68@gmail.com		
Charles Hillebrand		
kylewglover@aol.com		
_		

06/10/2015 10:09 3343618652 AUTAUGA EMA PAGE 29 Recipient Delivery Read 'van.smith@autauga.com' David Chandler (dcsr333@gmail.com) Lee, Teresa Read: 09/22/2014 3:10 PM Gillespie, Bill

PUBLIC MEETING

Read: 09/22/2014 8:01 PM

The Autauga County Commission/Emergency Management Agency is scheduling a public meeting on September 24, 2014 at 10 a.m. to update its Hazard Mitigation Plan. The meeting will take place at the Autauga County Commission Building in the Commission Chambers. The public, private non-profits, municipalities, school boards, 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.

Autauga County EMA 826 Gillespie St Prattville AL 36067 334-361-3758 Office 334-361-8652 Fax

AUTAUGA EMA

PAGE 23

Morgan. Kristen

From:	Morgan. Kristen
Sent:	Tuesday, September 09, 2014 9:04 AM
To:	'info@prattvilleprogress.com'
Subject:	PUBLIC MEETING announcement
Attachments:	PUBLIC MEETING announcement.docx

Hi l

Would you please include this in your calendar of events? We would like it to run in both the Saturday & Wednesday editions until September 24th.

If you have any questions please give us a call.

Thank You,

Kristen Autauga County EMA 826 Gillespic St Prattville AL 36067 334-361-3758 Office 334-361-8652 Fax

AUTAUGA EMA

PUBLIC MEETING

The Autauga County Commission/Emergency Management Agency is scheduling a public meeting on September 24, 2014 at 10 a.m. to update its Hazard Mitigation Plan. The meeting will take place at the Autauga County Commission. 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.

INITIAL MEETING SIGN IN SHEETS

AUTAUGA COUNTY

Wednesday, September 24, 2014 at 10 a.m. – Autauga County Commission Chambers INITIAL HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/	PHONE/	E-MAIL
	JOB TITLE	FAX	
La lla	Agency: Lee Helms Associates	Phone: 205-280-3027	lee@leehelmsllc.com
Lee Helms	Job Title: OWNER / Contractor	Fax: 205-280-0543	
	Agency: Autauma 91	Phone: 334 361 9911	
Shettela Carroll	Job Title: Operations Vanage		Shettely, Camil @prattvilleg
T P	Autauga 911	Phone: 334-300.9447	Shettels. Carnel @prattvilledg Terry. Poole @prattvillegg
Terry Pook	Job Title: dispatcher	Fax:	
ь. -	Agency: Billingslay Jol. Fie	Phone: 334 850 2699	Des M333esmalle
David Churly-	Job Inte: ASST. Chief	Fax:	0
R .	Agency: Alabama Fovesky Comm	Phone: (334) 361-0576	Autouga, County 9 Foresky, 992
Patricie Coole	Job Intle: Ranger	Fax: A sime	
Allen Quens	Prattalle Fine Descriptions	Phone: 354-595-0306	allen wers p packilled son
MILLA QUENS	Job Title Bitts lion Chie C	Fax:	CI



AUTAUGA COUNTY

Wednesday, September 24, 2014 at 10 a.m. – Autauga County Commission Chambers INITIAL HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/	PHONE/	E-MAIL
	JOB TITLE	FAX	
Don Johnson.	Agency: Pratte le Baptist.	Phone: 334-361-4339,	Lisher sone buphist first. Cag
Ion Johnson.	Job Title: Charge Nuise.	Fax: 334 361- 3440)
	Agency: Aul. Co. Comm	Phone: 334-358-6701	STEVE. 60/SAN QML TALLAH, COM
57EUC ColSAW	Job Title: Thereson Administrate	Fax: 335-361-3124	
_	Agency: Autauja Sheriff's Office	Phone: 334-361-2507	Crystal pustar @ autanea.com
Chystal Questus	Job Title: Admin Assist	Fax: 334-341-2514	7 7 - 9
	Agency: C. L. of Prott-1/1	Phone: 391 3948	may aproto lealing
BILL G: 14	Job Title: Mayz	Fax:	
02	Agency:	Phone:	
	Job Title:	Fax:	
	Agency:	Phone:	
	Job Title:	Fax:	



AUTAUGA COUNTY

Wednesday, September 24, 2014 at 10 a.m. – Autauga County Commission Chambers INITIAL HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/	PHONE/	E-MAIL
	JOB TITLE	FAX	
	Agency, HoTAIGEVILLE	Phone: 365-9563	
F.B. WARD	Job Title: MAYS K	Fax: 345-59669	
	Job Title: MA48 K Agency: EMA	Phone: 301-3758	voxanne.voya@prattulle
Roxanne Royce GARy WEAVER	Job Title:	Fax: 361-8652	5
p 0	Agency: EMA	Phone: 361 - 3758	GARY . NEAVER PRATTVILLEAL. GO
WARY WEAVER	Job Title:	Fax: 361-8657	1
A 0 1	Agency: Auturga Cy fluonie	Phone:	
Connie Scott	Job Title: Chief Mupper	Fax:	
	Agency: Prattuelle Fine	Phone:	dallis.johnsun e
Dallis Johnson	Job Title:	Fax: 361 - 3667	prattv:'ll+al.gov
	Agency: EMA	Phone: 361-3758	ernie . baggette Pratty ilea 1. gel
Ernic Basgett	Job Title: Dictor	Fax:	



INITIAL MEETING AGENDA

2015 AUTAUGA COUNTY HAZARD MITIGATION PLAN UPDATE

Wednesday, September 24, 2014 @ 10 a.m. Autauga County Commission Chambers

1. Introductions

- Sign-in sheets <u>please print and make sure your email is on the form</u>
- 2. Project Background
 - 2009-2010 plan update was prepared by the Autauga County Emergency Management Agency in cooperation with the Hazard Mitigation Planning Committee and adopted by:
 - o Autauga County Unincorporated
 - o Autaugaville Town
 - o Billingsley Town
 - o Prattville City
 - 2015 plan update will be prepared by Lee Helms Associates, L. L. C. under the direction of the Hazard Mitigation Planning Committee and the Autauga County Emergency Management Agency
- 3. Project Participation
 - Identify opportunities for public input into the 2015 plan update
 - Identify potential plan meeting participates 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
 - 2009-2010 plan update expires February 8, 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: Thursday, December 4, 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 2009-2010 plan information see handouts
 - Discuss in-kind contributions for local match to this planning grant
 - Set date and location for next meeting

CITIZEN INPUT ON HAZARD MITIGATION PLANNING A total of 18 forms were submitted.

Α

Where in the county do you live (Which city or township?)	Autaugaville, Dentsville, Elmore, Jemison, Montgomery, Opp, Prattville, White City
What is your zip code at home?	35085, 36003, 36022, 36066, 36061, 36115, 36467
Do you work with Law Enforcement, Fire Service, Emergency Medical Services, Public Health, or Emergency Management? (Yes or No)	9 out of 18

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

	EVENT	YES	NO
А	Brush or grass fire?	8	10
В	Building fire?	8	10
С	Severe thunderstorm?	16	2
D	Tornado?	14	4
E	Winter Weather?	16	2
F	Terrorism?	0	18
G	Drought?	8	10
Η	Hazardous material spill or release from pipelines, trucks, trains, or aircraft?	3	15
Ι	Hazardous material spill or release from a facility?	1	17
J	Power failure for more than two or three hours?	14	4
Κ	Earthquake	0	18

Did you have to leave your home because of any of these events? If so, which ones? List by letter designation: D, C, E, J

Did you lose time from work or school because of any of these events? If so, which ones? List by letter designation: E, C, D

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

	EVENT	YES	NO
Α	Brush or grass fire?	5	13
В	Building fire?	8	10
С	Severe thunderstorm?	13	5
D	Tornado?	17	1
E	Winter Weather?	11	7
F	Terrorism?	7	11
G	Drought?	5	13
Η	Hazardous material spill or release from pipelines, trucks, trains, or aircraft?	7	11
Ι	Hazardous material spill or release from a facility?	5	13
J	Power failure for more than two or three hours?	14	4
Κ	Earthquake	4	14

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: D,C,E,B,J,A,F,G,H,I,K

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? D,C,H,D,I,G

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

Do you own a NOAA weather radio?	YES 10	NO 6
If yes, is it on right now?	YES 5	NO 11

Are you familiar with the Emergency Alert System YES 15 NO1

Do you have a device that can sound an alarm to alert you to emergencies? YES 14NO2

Can you receive emergency warning information on your pager, cell phone, or wireless

messaging devices? YES 15 NO1 If no, would you like to? YES 1 NO 0

Do you have a family emergency plan for events such as a home fire? YES 14 NO 2

Do you have a safe place for shelter in or around your home? YES 13 NO3

Are there emergency plans at your place of employment? YES 16 NO0

If you are willing to, please provide your <u>name</u>, <u>address</u>, <u>and a telephone number</u> 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?

Initial Meeting Minutes Wednesday, September 24, 2014 at 10 a.m. The Autauga County Commission Chambers, Autauga County Hazard Mitigation Planning Committee Meeting 1

The Chairman of the Hazard Mitigation Planning Committee, Mr. Ernie Baggett, opened the meeting. Lee Helms Associates, L. L. C. reviewed the 2009 plan with committee members and attendees and explained the update process. Attendees were given worksheets and other materials related to the agenda topics in order to review and provide data for the update. A total of 15 committee members or designees attended the meeting, along with 1 LHA representative. No members of the general public were in attendance. Those in attendance included: Ernie Baggett, Director, Autauga County EMA

- Allen Owens, Battalion Chief, Prattville Fire Department
- Bill Gillespie, Mayor, City of Prattville
- Connie Scott, Chief Mapper, Autauga County Revenue Department
- Crystal Ousley, Administrative Assistant, Autauga County Sheriff's Office
- Dallis Johnson, Fire Marshal, Prattville Fire Department
- David Chandler, Assistant Chief, Billingsley VFD and West Autauga Water
- Don Johnson, Charge Nurse, Prattville Baptist Hospital
- F. B. Ward, Mayor, Town of Autaugaville
- Gary Weaver, Autauga County EMA
- Lee Helms, Owner/Consultant, Lee Helms Associates, L. L. C.
- Patrick Cook, Ranger, Alabama Forestry Commission
- Roxanne Royal, Autauga County EMA
- Shettela Carroll, Operations Manager, Autauga County 911
- Steve Golsan, Treasurer/Administrator, Autauga County Commission
- Terry Poole, Dispatcher, Autauga County 911

Email Announcement of LEPC Meeting

Morgan. Kristen

From:	Morgan. Kristen				
Sent:	Tuesday, March 17, 2015 10:43 AM				
To: Cc:	Anderson, Robby; Ann Salte (acrs@knology.net); Autaug; (wb4bil@gmail.com); bmorg Cecil Boatwright (cboatwrigh (fthicks@baptistfirst.org); Cl: Chambliss (clyde@chambliss Chandler; Duke, Joel; Eric Jo (ghenry@baptistfirst.org); g: (thrailkillbuilders@knology.r (lance.messer@bushhog.cor Mayor; Mayor Davis; Melody (spence.agee@acboe.net); S Whaley, Michael; Yvonne Th	r, ASO Joe Sedinger Fwd; Auta a.County@forestry.alabama.go gan@autaugabaptist.org; Brow ht@TENASKA.com); Chief Surl ay McConnell (jcmcconn@sou sengineering.com); Connell, A nes (ejones@elmore.org); Gin springer@adem.state.al.us; Jol net); Johnson, Dallis; 'Lance Mo n); Iccarswell@knology.net; Lin y Colvert; 'spence.agee@acbo teve Golsan; Thompson, Mark omas (thomasyd@aces.edu); al@prattvillechamber.com'; Bi	bv); Bart Leswick; Bill Morgan vn, Terry; Carpenter, Melissa; es; Chip Hicks Ithernco.com); Clyde nthony; CYNDI; David ger Henry hn Threadkill esser (Bush Hog)' nda Chandler; mary conway; e.net' ; van.smith@autauga.com; CityCouncil		
	· · ·	on Forward; 'b.puckett@dixiep			
Subject:	LEPC/ Hazard Mitigation Me	eeting			
Tracking:	Recipient	Delivery	Read		
	Anderson, Robby		Read: 03/17/2015 11:13 AM		
	Ann Salter				
	ASO Joe Sedinger Fwd				
	Autauga Co. Rescue Squad (acrs@knology.net)				
	Autauga.County@forestry.alabama.				
	Bart Leswick				
	Bill Morgan (wb4bil@gmail.com)				
	bmorgan@autaugabaptist.org				
	Brown, Terry		Read: 03/17/2015 10:43 AM		
	Carpenter, Melissa		Read: 03/17/2015 10:44 AM		
	Cecil Boatwright (cboatwright@TENASKA.com)				
	Chief Surles	Failed: 03/17/2015 10:43 AM			
	Chip Hicks (fthicks@baptistfirst.org)			
	Clay McConnell (jcmcconn@southernco.com)				
	Clyde Chambliss (clyde@chamblissengineering.com)			
	Connell, Anthony		Read: 03/17/2015 11:32 AM		
	CYNDI				
	David Chandler				
	Duke, Joel		Read: 03/17/2015 10:47 AM		
	Eric Jones (ejones@elmore.org)				
	Ginger Henry (obenor@bantistfirst.om) 1				
	1				

Renee Helms	
From:	Renee Helms [renee@leehelmslic.com]
Sent:	Monday, March 23, 2015 4:06 PM
To:	'shettela.carroll@prattvilleal.gov'; 'terry.poole@prattvilleal.gov'; 'dcs_333@gmail.com'; 'autauga.county@forestry.gov'; 'allen.owens@prattvilleal.gov'; 'djohnson@baptistfirst.org'; 'steve.golsan@autauga.com'; 'crystal.ousley@autauga.com'; 'mayor@prattvilleal.gov'; 'Royal, Roxanne'; 'gary.weaver@prattvilleal.gov'; 'dallis.johnson@prattvilleal.gov'; 'Baggett, Ernie'; 'davisfamily2448@yahoo.com'; 'soubi1963@aol.com'; 'denise.gilmore@acboe.net'; 'spence.agee@acboe.net'
Cc:	'Chilton Co Ema'; Dallas Co. EMA; Lowndes Co EMA; 'Fox, Cindy'; 'ejones@elmoreco.org'
Subject:	CHANGE OF MEETING LOCATION
Importance:	High

IMPORTANT NOTE: Ernie Baggett, Director of the Autauga County EMA has informed me we will have to use the Chamber of Commerce building next door to the commission building for tomorrow's meeting!

Renee Helms, Manager

Lee Helms Associates, L. L. C. 236 Town Mart Clanton, AL 35045 Office: 205-280-3027 Fax: 205-280-0543 Email: renee@leehelmsllc.com Website: www.leehelmsllc.com



From: Renee Helms [mailto:renee@leehelmsllc.com]
Sent: Monday, March 23, 2015 3:00 PM
To: 'shettela.carroll@prattvilleal.gov'; 'terry.poole@prattvilleal.gov'; 'dcs_333@gmail.com';
'autauga.county@forestry.gov'; 'allen.owens@prattvilleal.gov'; 'djohnson@baptistfirst.org'; 'steve.golsan@autauga.com';
'crystal.ousley@autauga.com'; 'mayor@prattvilleal.gov'; 'Royal, Roxanne'; 'gary.weaver@prattvilleal.gov';
'dallis.johnson@prattvilleal.gov'; 'Baggett, Ernie'; 'davisfamily2448@yahoo.com'; 'soubi1963@aol.com';
'denise.gilmore@acboe.net'; 'spence.agee@acboe.net'
Cc: 'Chilton Co Ema'; Dallas Co. EMA; Lowndes Co EMA; 'Fox, Cindy'; 'ejones@elmoreco.org'
Subject: Hazard Mitigation MidTerm Meeting Tomorrow
Importance: High

REMINDER:

There will be a midterm HMPC meeting tomorrow, Tuesday, March 24, 2015 at 10 a.m. in the Autauga County Commission Chambers. Your attendance is encouraged and participation is required for your jurisdiction to receive federal grants for hazard mitigation in the next five years.

See you there!

Renee Helms, Manager Lee Helms Associates, L. L. C.



Public Posting of Meeting Announcement

PUBLI EETING

The Autauga County Commission/Emergency Management Agency is scheduling a public meeting on March 24h at 10 a.m. to update its Hazard Mitigation Plan. The meeting will take place at the Autauga County Commission. 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.

07/09/2015 10:28

AUTAUGA COUNTY

Tuesday, March 24, 2015 at 10 a.m. – Autauga County Commission Chambers MID-TERM HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

NAME	AGENCY OR DEPARTMENT/	PHONE/	E-MAIL
	JOB TITLE	FAX	
	Agency: PAA TVELE FERE	Phone: 334-595-0300	
TEURY BUDON	Job Title: FIRE CLEEP	Fax:	
1, 1,	Agency: Autauga 911	Phone: 334-595-0491	
Ullisse (arpenter	Job Title: Director	Fax:	
1. 1 De la	Agency: Prattville Fise	Phone: 534-595-038/	
Michael Whaley	Job Title: Battalian Chief	Fax:	
P	Agency: AUTANGA EMA	Phone: 334 361- 3758	GATAY, WEAVEL @ PLATHILEAL, GO
bring WEAVER	Job Title: DEPUTY DIRECTOR	Fax:	-1941-7
CAM WEAVER EINIE Bassett	Agency: Matager EM	Phone: 334-361 3758	ernic bassette Data Med
	Job Title: Tiche	Fax:	
	Agency:	Phone:	
	Job Title:	Fax:	



AUTAUGA COUNTY

Tuesday, March 24, 2015 at 10 a.m. – Autauga County Commission Chambers MID-TERM HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

(PLEASE PRINT CLEARLY)

NAME	AGENCY OR DEPARTMENT/	PHONE/	E-MAIL
	JOB TITLE	FAX	
Lee Helms	Agency: Lee Helms Associates	Phone: 205.280-3027	lee@leehelms/1c.com
P IIO	Job Title: Owner (Contractor	Fax: 205-280-0543	
	Agency: ADPH	Phone: 334-278.8464	MARY Converge Ocolett's 2
MARY CONWAY	Job Title: E.P. NUNSE	Fax:	······································
	Agency: Co. Commission	Phone: 205-294-4828	VANSMI th 530gmin. 1.0
VAN SMITH	Job Title: Commissioner	Fax:	
AU D	Agency: Prathille Fine	Phone: 334-597-0306	allen. Unersp pre Hullrel.gen
Allen Quers	Job Title: Br Halin Chief	Fax:	
	Agency: Pullas Co EMA	Phone: 334 814 2515	Heads, When on @ dalles Cours
Rhondu Johnson	Job Title: Director	Fax: 334 814 2595	
	Agency: City of Prattville	Phone: 334-595-0504	ryan, pecharka Opratui
Ryan Pecharka	Job Title: GIS Coordinator	Fax:	



AUTAUGA COUNTY

Tuesday, March 24, 2015 at 10 a.m. – Autauga County Commission Chambers MID-TERM HAZARD-MITIGATION PLANNING MEETING SIGN-IN SHEET

NAME	AGENCY OR DEPARTMENT/	PHONE/	E-MAIL
	JOB TITLE	FAX	
ric Morgan	Agency: Prattule Beptist Hosp	Phone: 361-4325	'RMorgan Oboptist first
- The mologan	Job Titler	Fax: 361-4215	0 5 7
/ .	Agency: Williams Gas Pipeline	Phone: 205-755-4131 Fax:	todd, barnett bacnett @ williams.com
Todd Barnett	Job Title: Operations Tech St.	Fax: 864-964- 8753	
\land .	Agency: Williams Gras Pipeline	Phone: 234-380-1425	Patrick, P. Aman OWillium
Patrick Aman	Job, Tille: S. Operations MGr.	Fax: 864-964-8753	
	Agency: Antonia County Schools	Phone: 334 850 - 4570	ncil. messick & achoe net
Neil Messick	Job Title: Transportation Supersisor	Fax: 334 361- 3897	
	Agency:	Phone:	
	Job Title:	Fax:	
	Agency:	Phone:	
	Job Title:	Fax:	



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SECOND MEETING AGENDA

2014-2015 AUTAUGA COUNTY HAZARD MITIGATION PLAN UPDATE

Tuesday, March 24, 2015 at 10 a.m. Autauga County Commission Chambers

- 1. Introductions
 - Sign-in sheets <u>please print and make sure your email is on the form.</u>
- 2. Project Schedule Reminder
 - 2010 plan update expired February 8, 2015
 - Period of Performance for the grant is November 18, 2013 May 18, 2015
 - Initially we allowed: 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); however, the review process is taking much longer
 - 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 <u>renee@leehelmsllc.com</u>. 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



Second Meeting Minutes Tuesday March 24, 2015 at 10 a.m. The Autauga County Commission Chambers, Autauga County Hazard Mitigation Planning Committee Meeting 2

The Chairman of the Hazard Mitigation Planning Committee, Mr. Ernie Baggett, opened the meeting. Lee Helms Associates, L. L. C. reminded the committee members and attendees of the project schedule. Attendees were given worksheets and other materials related to the agenda topics in order to review and provide data for the update. These worksheets were previously emailed to participants with instructions on what information needs updating. A total of 14 committee members or designees attended the meeting, along with one LHA representative.

- Terry Brown, Fire Chief, Prattville Fire Department
- Ernie Baggett, Director, Autauga County EMA
- Gary Weaver, Autauga County EMA
- Lee Helms, Owner/Consultant, Lee Helms Associates, L. L. C.
- Patrick Aman, Sr. Operations Manager, Williams Gas Pipeline
- Melissa Carpenter, Director, Autauga 911
- Michael Wesley, Battalion Chief, Prattville Fire Department
- Mary Conway, EP Nurse, Alabama Department of Public Health
- Van Smith, Commissioner, Autauga County Commission
- Allen Overs, Battalion Chief, Prattville Fire Department
- Rhonda Johnson, Director, Dallas County EMA
- Ryan Pecharka, GIS Coordinator, City of Prattville
- Eric Morgan, Director of Pharmacy, Prattville Baptist Hospital
- Todd Barnett, Operations Tech Sr., Williams Gas Pipeline
- Neil Messick, Transportations Supervisor, Autauga County Schools

Interagency and Intergovernmental Coordination

Interagency and intergovernmental coordination also played a vital part in the development 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 development of the plan. All information provided was beneficial in completing the 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 2012 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. Department of Agriculture Census of Agriculture provided land value per acre
- HAZUS-MH 2.1 2011 provided estimation information on potential damage, economic loss, and social impacts from natural disasters

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 <u>Alabama</u> <u>Drought Management Plan</u>, National Flood Insurance Program information and FEMA flood map update information
- Forestry Commission provided information regarding wildfires

Regional Agencies

 Central Alabama Regional Planning and Development Commission provided area planning and development and transportation planning information, as well as maps pertaining to plan information.

Local Agencies

- Autauga County Emergency Management Agency provided assistance in gathering data
- University of Alabama Department of Geology

Surrounding counties in Alabama (Chilton, Dallas, Elmore, Lowndes, and Montgomery) were also invited by email to participate in the development of the plan. Most of the surrounding communities did not attend the meetings; however, were forwarded the meeting information and given a chance for input into this plan revision. All surrounding counties expressed their support of this plan revision.

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. **Table 1-1** provides a list of the existing plans by jurisdiction. Wherever appropriate, Central Alabama Regional Planning and Development Commission's economic development planning efforts have been integrated into this plan revision. Of possible interest to those viewing this plan, the Central Alabama Regional Planning and Development Commission may provide Autauga County with: 1) A Business Preparedness Toolkit and presentation that will help area businesses prepare for the effects of a disaster. The toolkit is tailored to Autauga County and provides a sample preparedness and continuity of operations plan, support materials, and a listing of local emergency resources. 2) Data Books containing information from the 2010 Census and the 2006-2010 American Community Survey for the county, tracts, and municipalities. Maps of the counties and tracts are also included.

Plan Adoption

All jurisdictions in Autauga County, along with the Autauga County Emergency Management, Autauga County Commission, Autauga County E-911, Autauga County Engineering Department, Autauga County School Systems, Autauga Sheriff's Office, Billingsley Volunteer Fire Department, West Autauga Water Works, Prattville Fire Department, Prattville Baptist Hospital, Williams Gas Pipeline, Alabama Forestry Commission, Central Alabama Regional Planning and Development Commission, and the Natural Resource Conservation Service have actively participated in the planning process by attending meetings and providing input. Representatives from each local government served on the Hazard Mitigation Planning Committee and attended the meetings. The committee was responsible for updating materials, reviewing sections of the plan, and recommending changes to the plan. Upon completion of the plan each of the municipalities Autauga County, City of Prattville, Town of Autaugaville, Town of Billingsley, Autauga County Board of Education, Autauga County Fire Association, and Prattville Baptist Hospital will pass formal resolutions adopting the Autauga County Hazard Mitigation Plan. By adopting this multi-jurisdictional hazard mitigation plan, Autauga County and the listed local governments within will be eligible applicants for mitigation grant funds through the Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, and the Flood Mitigation Assistance Program. Adopting Resolutions can be found in Appendix I.

		1-1: Autauga C g Plans by Juris	v	
PLAN/POLICY	Autaugaville	Billingsley	Prattville	Autauga County
Comprehensive Plan	Y	Ν	Y	Ν
Strategic Plan	Ν	Ν	Ν	Ν
Growth Management Plan	N	Ν	N	Ν
Capital Improvement Plan	Ν	Ν	N	Ν
Subdivision Ordinance	Ν	Ν	Y	Y
Zoning Ordinance	Ν	Ν	Y	Ν
Building Code	Ν	Ν	Y	Ν
Flood Plain Management Plan	N	Ν	Y	Y
Elevation Certificates	Ν	Ν	Ν	Ν
Drainage Ordinance	Ν	Ν	Ν	Ν
Emergency Management Plan	Y	Y	Y	Y
Critical Facilities Map	Ν	Ν	Ν	Ν
Emergency Management and Response Training	Y	Y	Y	Y
Existing Land Use Map	Ν	Ν	Ν	Ν
Evacuation Plan	Ν	Ν	Y	Y
State Plan	Ν	Ν	Ν	Ν
Hazard Mitigation	Ν	Ν	N	Ν
Strategic National Stockpile Plan	N	Ν	N	Ν
Other	N	Ν	Stormwater Management Plan	Ν
Source: Participating Jurisdiction	on, 2014			

Section Two: General Characteristics

Autauga County is located in South Central Alabama. Chilton, Dallas, Elmore, Lowndes, and Montgomery Counties border Autauga County. The county has 594 square miles of land area and approximately 8 square miles of water area as reported by the 2010 Census. The county contains three municipalities: the City of Prattville, Town of Autaugaville, and Town of Billingsley.

Autauga County has two local police departments, and county sheriff's department. There are 10 volunteer fire departments and one full time fire department and emergency medical services in the County.

Law enforcement needs are served by the Autauga County Sheriff's Department and two local police departments (Autaugaville and Prattville), and fire services are available to the entire county via ten volunteer fire departments that operate throughout the county, based in Autaugaville, Billingsley, Booth, Independence, Jones, Marbury, Old Kingston, Pentecost, White City and Pine Level.

There is one public school system within the county, Autauga County School System. See **Map 2-1**: Autauga County General Location. Autauga County is governed by County Commissioners elected by citizens in their commission districts. The chairmanship rotates among the commissioners allowing each to serve as chairman. An elected mayor and council serve each municipality. The City of Prattville serves as the Autauga County seat and is the center for local business and trade.

Autauga County has one airport located in Prattville. The airport does not provide commercial service. Utilities in Autauga County include electricity, water, sewer, and solid waste. Central Alabama Electric CO-OP provides electrical service. Southern Company provides telecommunication services. Water and sewer service is performed by municipal or rural systems. Most unincorporated areas are serviced only by septic tanks.

Growth Trends

Autauga County's population has grown slightly over the past twenty-three years. Map 2-1: Autauga County General Location and Map 2-2: Autauga County Population Density depicts the newest 2010 Census Tracts and population concentrations in Autauga County. Table 2-1 below shows the growth trends for the county and its municipalities compared to the State of Alabama.

Table 2-1: Growth Trends 1990-2014

Change 1990-2014	Change	1990	-2014
------------------	--------	------	-------

	4/1/1990 4/1/2000		4/1/2010	1/1/2014	Number	Percent
Autaugaville	803	761	870	885	82	10.2%
Billingsley	92	127	144	148	148 56	
Prattville	ittville 20,987		26,203 33,960		13,474	64.2%
Autauga County	34,170	43,618	54,571 55,522		21,352	63%
Alabama	4,041,281	4,447,032 4,779,736 4,841,4		4,841,486	800,205	20%
Source: U.S. Bureau	of Census 201	0; easidemogra	phics.com; Ca	lculations by L	HA in 2014.	

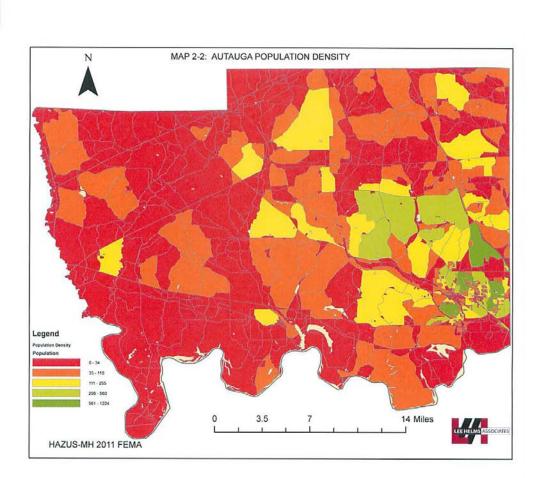
MAP 2-1: AUTAUGA COUNTY

General Location Map



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MAP 2-2: AUTAUGA COUNTY POPULATION DENSITY



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General Geology

(Source: U. S. Department of the Interior/U. S. Geological Survey)

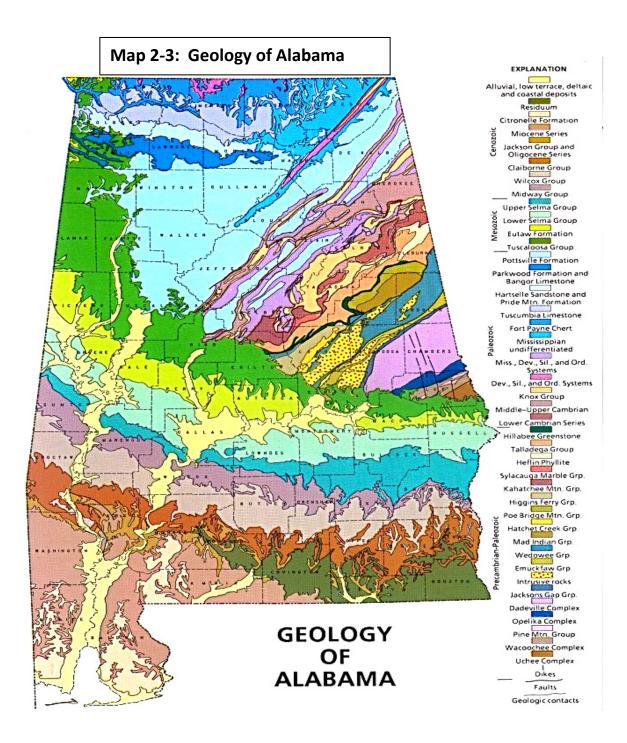
Geologic units in Autauga County, Alabama are shown on **Map2-3: Geology in Alabama** and include the following:

High terrace deposits (Pleistocene) at surface, covers 7 % of this area – is varicolored lenticular beds of poorly sorted sand, ferruginous sand, silt, clay, and gravelly sand. Sand consists primarily of very fine to very coarse poorly sorted quartz grains; gravel composed of quartz, quartzite, and chart pebbles. Lithology: terrace

Selma Group; Mooreville Chalk (Cretaceous) at surface, covers 7 % of this area - is yellowish-gray to olive-gray compact fossiliferous clayey chalk and chalky marl. The unconformable contact at the base is characterized by a bed of glauconitic, chalky sand containing phosphate pellets and molds of fossils. The Arcola Limestone Member at the top consists of two to four beds of light-gray brittle, dense, fossiliferous limestone separated by beds of light-gray to pale-olive calcareous clay. Lithology: carbonate; mixed clastic/carbonate; sand; limestone; clay or mud.

Eutaw Formation (Cretaceous) at surface, covers 7 % of this area is light-greenish-gray to yellowish-gray cross-bedded, well-sorted, micaceous, fine to medium quartz sand that is fossiliferous and glauconitic in part and contains beds of greenish-gray micaceous, silty clay and medium-dark-gray carbonaceous clay. Light-gray glauconitic fossiliferous sand, thin beds of sandstone, and massive accumulations of fossil oyster shells occur locally in the upper part of the formation in western AL (Tombigbee Sand Member). In eastern AL thin to thick-bedded accumulations of the fossil oyster Ostrea cretacea Morton occur throughout much of the formation. Lithology: sand; clay or mud; sandstone.

Alluvial, coastal and low terrace deposits (Holocene) at surface, covers 7 % of this area is - varicolored fine to coarse quartz sand containing clay lenses and gravel in places. Gravel composed of quartz and chert pebbles and assorted metamorphic and igneous rock fragments in streams near the Piedmont. In areas of the Valley and Ridge province gravel composed of angular to subrounded chert, quartz, and quartzite pebbles. Coastal deposits include fine to medium quartz sand with shell fragments and accessory heavy minerals along Gulf beaches and fine to medium quartz sand, silt, clay, peat, mud and ooze in the Mississippi Sound, Little Lagoon, bays, lakes, streams, and estuaries. Lithology: beach sand; alluvium.



Source: The University of Alabama - Geology Department

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Section Three: Risk Assessment

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

The county's Hazard Probability Assessment Summary is shown in **Table 3-1**. 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 Five of the plan.

Table 3-2 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 3-3 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 3-4 provides the mitigation actions prioritization by jurisdiction. Each jurisdiction was responsible for prioritizing their proposed mitigation actions for the next five years. The jurisdictions took into consideration the impacts of hazards they had experienced over the past five years, as well as the mitigation actions available to help protect their jurisdictions and citizens.

Tables 3-5 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 Five. 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 severity 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.

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

Table 3-1: Autauga CountyHazard Probability of Future Occurrence									
Natural Hazards	Number of Occurrences Between 2003-2013	Probability of Future Occurrence	Area Affected						
Thunderstorm	83	>100%	Countywide						
Lightning	3	30%	Countywide						
Hail	39	>100%	Countywide						
Tornado	20	>100%	Countywide						
Flood/Flash Flood	12	>100%	Countywide						
Droughts/Extreme Heat	33	>100%	Countywide						
Winter Storm/Frost Freeze/Heavy Snow/ Ice Storm/Winter Weather/Extreme Cold	9	90%	Countywide						
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	14	>100%	Countywide						
Sinkhole/Expansive Soil	0	Unknown	Countywide						
Landslide	0	Unknown	Countywide						
Earthquake	0	Unknown	Countywide						
Dam/Levee Failure	0	Unknown	Unincorporated Areas						
Wildfire (3-year study period – 1,095 days)	114	>100%	Countywide						

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 or unknown denotes no data available to determine the probability of future occurrence or areas affected.

Table 3-2 Autauga CountyHazard Identification by Jurisdiction

Natural Hazards	City of Prattville	Town of Autaugaville	Town of Billingsley	Unincorporated County
Thunderstorm	Х	X	X	X
Lightning	Х	Х	Х	Х
Hail	Х	Х	Х	Х
Tornado	Х	Х	Х	Х
Flood/Flash Flood	Х	Х	Х	Х
Drought/Extreme Heat	Х	Х	Х	Х
Winter Storm/Frost	Х	Х	Х	Х
Freeze/ Heavy Snow/ Ice				
Storm/ Winter				
Weather/Extreme Cold				
Hurricane/Tropical Storm/	Х	Х	Х	Х
Tropical Depression/High				
Wind/Strong Wind				
Sinkhole/Expansive Soil	N/A	N/A	N/A	N/A
Landslide	Y	Ν	Ν	Y
Earthquake	N/A	N/A	N/A	N/A
Wildfire	Х	Х	Х	Х
Dam/Levee Failure				
	Y	Y	N/A	Y

Table 3-3 Autauga CountyPrioritized Occurrence Threat by Jurisdiction Based on Past Events

Natural Hazards	City of Prattville	Town of Autaugaville	Town of Billingsley	Unincorporated County
Thunderstorm	1	1	1	1
Lightning	9	9	9	9
Hail	3	3	3	3
Tornado	4	4	5	5
Flood/Flash Flood	7	7	7	7
Drought/Extreme Heat	2	2	2	2
Winter Storm/Frost Freeze/ Heavy Snow/ Ice Storm/ Winter Weather/Extreme Cold	8	8	8	8
Hurricane/Tropical Storm/ Tropical Depression/High Wind/Strong Wind	6	6	6	6
Sinkhole/Expansive Soil	13	13	13	13
Landslide	10	12	12	12
Earthquake	11	11	11	11
Wildfire (3-year study period)	1	1	1	1
Dam/Levee Failure	12	12	12	11
(Source: HAZUS-MH 2011 ac	cessed 201	14)		

	Table 3-4: Autauga CountyMitigation Actions Prioritization									
Natural Hazards	City of Prattville	Town of Autaugaville	Town of Billingsley	Unincorporated County						
Thunderstorm	1	1	1	1						
Lightning	9	9	9	9						
Hail	2	2	2	2						
Tornado	4	4	5	5						
Flood/Flash Flood	7	7	7	7						
Drought/Extreme Heat	3	3	3	3						
Winter Storm/Frost Freeze/ Heavy Snow/ Ice Storm/ Winter Weather/Extreme Cold	8	8	8	8						
Hurricane/Tropical Storm/ Tropical Depression/High Wind/Strong Wind	6	6	6	6						
Sinkhole/Expansive Soil	13	13	13	13						
Landslide	10	12	12	12						
Earthquake	11	11	11	11						
Wildfire	1	1	1	1						
Dam/Levee Failure	12	12	12	11						
(Source: Local Jurisdictions, 2015)										

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TABLE 3-5: AUTAUGA COUNTY HAZARD EVENTS

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

x								· · · · ·	. .		(D
<u>Location</u>	County/Zor	<u>ne St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	Inj	<u>PrD</u>	<u>CrD</u>
COUNTYWIDE	AUTAUGA CO.	AL	03/13 /2003	14:50	СЅТ	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	03/14 /2003	20:52	CST	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
JONES	AUTAUGA CO.	AL	04/07 /2003	06:56	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/25 /2003	15:23	СЅТ	Thunderstorm Wind	70 kts. EG	0	3	1.000M	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	08/04 /2003	16:29	СЅТ	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
JONES	AUTAUGA CO.	AL	04/07 /2004	19:14	СЅТ	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	07/12 /2004	17:55	СЅТ	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	03/07 /2005	18:59	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	03/31 /2005	06:38	CST	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	04/01 /2005	16:29	CST	Thunderstorm Wind	70 kts. EG	0	0	350.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/21 /2005	14:32	CST	Thunderstorm Wind	51 kts. EG	0	0	12.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	04/30 /2005	06:01	СЅТ	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	05/20 /2005	17:45	CST	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
MARBURY	AUTAUGA CO.	AL	04/19 /2006	20:58	СЅТ	Thunderstorm Wind	50 kts.	0	0	1.00K	0.00K

							EG				
BILLINGSLEY	AUTAUGA CO.	AL	04/19 /2006	21:16	CST	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	05/10 /2006	15:12	CST	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
JONES	AUTAUGA CO.	AL	07/29 /2006	17:20	CST	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	08/15 /2006	16:45	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
INDEPENDENCE	AUTAUGA CO.	AL	02/13 /2007	18:41	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
<u>BOOTH</u>	AUTAUGA CO.	AL	02/13 /2007	18:52	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/04 /2007	02:24	CST-6	Thunderstorm Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	10/23 /2007	00:30	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PRATTMONT	AUTAUGA CO.	AL	02/12 /2008	18:50	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
PRATTVILLE ARPT	AUTAUGA CO.	AL	02/26 /2008	06:50	CST-6	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	03/04 /2008	03:40	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
PRATTMONT	AUTAUGA CO.	AL	06/11 /2008	16:40	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
PRATTMONT	AUTAUGA CO.	AL	06/11 /2008	16:42	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	06/11 /2008	16:45	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
POSEYS XRDS	AUTAUGA CO.	AL	06/11 /2008	17:15	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
FAYS	AUTAUGA CO.	AL	06/28 /2008	19:27	CST-6	Thunderstorm Wind	39 kts.	0	0	0.50K	0.00K

							EG				
MULBERRY	AUTAUGA CO.	AL	06/29 /2008	15:30	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
<u>PRATTVILLE</u>	AUTAUGA CO.	AL	06/29 /2008	16:02	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
<u>AUTAUGAVILLE</u>	AUTAUGA CO.	AL	07/11 /2008	17:45	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
<u>BOOTH</u>	AUTAUGA CO.	AL	07/11 /2008	17:45	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
<u>BOOTH</u>	AUTAUGA CO.	AL	08/07 /2008	14:20	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
<u>PRATTMONT</u>	AUTAUGA CO.	AL	08/07 /2008	14:35	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
<u>VIDA</u>	AUTAUGA CO.	AL	02/27 /2009	17:21	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	04/10 /2009	19:15	CST-6	Thunderstorm Wind	40 kts. EG	0	0	0.50K	0.00K
PRATTMONT	AUTAUGA CO.	AL	04/10 /2009	19:20	CST-6	Thunderstorm Wind	40 kts. EG	0	0	1.00K	0.00K
<u>BOOTH</u>	AUTAUGA CO.	AL	04/10 /2009	20:17	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
<u>BOOTH</u>	AUTAUGA CO.	AL	05/03 /2009	13:47	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
<u>WADSWORTH</u>	AUTAUGA CO.	AL	06/02 /2009	16:34	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
INDEPENDENCE	AUTAUGA CO.	AL	06/12 /2009	20:37	CST-6	Thunderstorm Wind	43 kts. EG	0	0	5.00K	0.00K
<u>BOOTH</u>	AUTAUGA CO.	AL	06/12 /2009	20:48	CST-6	Thunderstorm Wind	40 kts. EG	0	0	0.50K	0.00K
MARBURY	AUTAUGA CO.	AL	06/14 /2009	11:46	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	06/14 /2009	11:53	CST-6	Thunderstorm Wind	50 kts.	0	0	2.00K	0.00K

							EG				
<u>WADSWORTH</u>	AUTAUGA CO.	AL	06/14 /2009	11:55	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
INDEPENDENCE	AUTAUGA CO.	AL	06/14 /2009	12:08	CST-6	Thunderstorm Wind	50 kts. EG	0	0	12.00K	0.00K
PRATTMONT	AUTAUGA CO.	AL	06/14 /2009	12:13	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
MARBURY	AUTAUGA CO.	AL	06/15 /2010	15:41	CST-6	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
MARBURY	AUTAUGA CO.	AL	07/26 /2010	18:10	CST-6	Thunderstorm Wind	40 kts. EG	0	0	25.00K	0.00K
<u>BOOTH</u>	AUTAUGA CO.	AL	08/22 /2010	13:25	CST-6	Thunderstorm Wind	60 kts. EG	0	0	3.00K	0.00K
BONITA	AUTAUGA CO.	AL	10/24 /2010	17:25	CST-6	Thunderstorm Wind	60 kts. EG	0	0	8.00K	0.00K
BONITA	AUTAUGA CO.	AL	10/25 /2010	03:45	CST-6	Thunderstorm Wind	60 kts. EG	0	0	3.00K	0.00K
<u>HAYNES</u>	AUTAUGA CO.	AL	03/26 /2011	13:57	CST-6	Thunderstorm Wind	87 kts. EG	0	0	55.00K	0.00K
<u>PINE LEVEL</u>	AUTAUGA CO.	AL	03/26 /2011	14:22	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	03/26 /2011	14:45	CST-6	Thunderstorm Wind	55 kts. EG	0	0	8.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	04/11 /2011	19:50	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	04/11 /2011	20:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/11 /2011	20:03	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	05/26 /2011	13:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
ROLLINS	AUTAUGA CO.	AL	05/26 /2011	13:30	CST-6	Thunderstorm Wind	50 kts.	0	0	6.00K	0.00K

							EG				
PINE FLAT	AUTAUGA CO.	AL	06/17 /2011	12:40	CST-6	Thunderstorm Wind	45 kts. EG	0	0	0.50K	0.00K
PRATTMONT	AUTAUGA CO.	AL	06/17 /2011	13:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	09/20 /2011	13:07	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
<u>STATESVILLE</u>	AUTAUGA CO.	AL	12/22 /2011	13:34	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
<u>FAYS</u>	AUTAUGA CO.	AL	07/03 /2012	14:55	CST-6	Thunderstorm Wind	39 kts. EG	0	0	2.00K	0.00K
<u>STATESVILLE</u>	AUTAUGA CO.	AL	07/05 /2012	19:32	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
NEW PROSPECT	AUTAUGA CO.	AL	07/31/ 2012	02:15	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
NEW PROSPECT	AUTAUGA CO.	AL	07/31/ 2012	02:15	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
WHITE CITY	AUTAUGA CO.	AL	07/31/ 2012	02:15	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
NEW PROSPECT	AUTAUGA CO.	AL	07/31/ 2012	02:15	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
POSEYS XRDS	AUTAUGA CO.	AL	07/31/ 2012	02:30	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<u>MULBERRY</u>	AUTAUGA CO.	AL	07/31/ 2012	02:50	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
PRATTMONT	AUTAUGA CO.	AL	12/25/ 2012	20:53	CST-6	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
PRATTMONT	AUTAUGA CO.	AL	01/30/ 2013	06:18	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
FAYS	AUTAUGA CO.	AL	01/30/ 2013	06:25	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
BOOTH	AUTAUGA CO.	AL	06/17/ 2013	14:54	CST-6	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K

							EG				
WADSWORTH	AUTAUGA CO.	AL	06/27/ 2013	22:00	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
BOOTH	AUTAUGA CO.	AL	06/27/ 2013	22:40	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
BOOTH	AUTAUGA CO.	AL	06/28/ 2013	11:50	CST-6	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
BONITA	AUTAUGA CO.	AL	07/23/ 2013	14:05	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	07/23/ 2013	14:10	CST-6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Totals:								0	3	1.625M	0.00K

3 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>
Totals:								0	0	47.50K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	03/09/2011	07:05	CST-6	Lightning		0	0	15.00K	0.00K
PRATTMONT	AUTAUGA CO.	AL	03/09/2011	07:05	CST-6	Lightning		0	0	22.50K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	03/09/2011	07:30	CST-6	Lightning		0	0	10.00K	0.00K
Totals:								0	0	47.50K	0.00K

Location	<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>lnj</u>	<u>PrD</u>	<u>CrD</u>
PRATTVILLE	AUTAUGA CO.	AL	03/14/2003	20:52	CST	Hail	0.75 in.	0	0	0.00K	0.00K
MARBURY	AUTAUGA CO.	AL	04/25/2003	14:25	CST	Hail	1.75 in.	0	0	60.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	04/25/2003	14:40	CST	Hail	1.00 in.	0	0	0.00K	0.00K
JONES	AUTAUGA CO.	AL	04/25/2003	14:55	CST	Hail	4.50 in.	0	0	2.500M	0.00K
JONES	AUTAUGA CO.	AL	04/25/2003	15:23	CST	Hail	1.75 in.	0	0	55.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	06/02/2003	19:10	CST	Hail	0.75 in.	0	0	0.00K	0.00K
JONES	AUTAUGA CO.	AL	04/07/2004	19:14	CST	Hail	1.75 in.	0	0	15.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/07/2004	22:04	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/07/2004	22:23	CST	Hail	1.75 in.	0	0	30.00K	0.00K
JONES	AUTAUGA CO.	AL	03/22/2005	09:41	CST	Hail	0.75 in.	0	0	0.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	03/22/2005	23:26	CST	Hail	1.75 in.	0	0	8.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	03/26/2005	18:27	CST	Hail	0.88 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	03/27/2005	11:21	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/21/2005	14:50	CST	Hail	1.00 in.	0	0	1.00K	0.00K
MARBURY	AUTAUGA CO.	AL	04/22/2005	13:50	CST	Hail	4.50 in.	0	0	20.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/22/2005	18:42	CST	Hail	0.75 in.	0	0	1.00K	0.00K
INDEPENDENCE	AUTAUGA CO.	AL	05/05/2005	17:40	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/08/2006	08:16	CST	Hail	1.75 in.	0	0	0.00K	0.00K

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

PINE LEVEL	AUTAUGA CO.	AL	04/19/2006	21:14	CST	Hail	1.00 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/19/2006	21:28	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	08/11/2006	17:00	CST	Hail	0.88 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	02/13/2007	18:40	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/02/2007	15:46	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
JONES	AUTAUGA CO.	AL	04/11/2007	14:55	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
JONES	AUTAUGA CO.	AL	04/11/2007	15:16	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	04/11/2007	15:39	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	02/27/2009	14:00	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
PINE FLAT	AUTAUGA CO.	AL	02/27/2009	17:50	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
MARBURY	AUTAUGA CO.	AL	06/02/2009	16:24	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
WHITE CITY	AUTAUGA CO.	AL	06/02/2009	16:24	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	10/24/2010	17:36	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	03/26/2011	14:17	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
POSEYS XRDS	AUTAUGA CO.	AL	05/26/2011	13:17	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	05/26/2011	13:22	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
INDEPENDENCE	AUTAUGA CO.	AL	02/24/2012	10:24	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	02/24/2012	10:36	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
MARBURY	AUTAUGA CO.	AL	04/05/2012	18:08	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	05/06/2012	09:28	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K

NEW PROSPECT	AUTAUGA CO.	AL	03/18/2013	16:02	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
Totals:								0	0	2.690M	0.00K

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

Location	County/Zone	St.	<u>Date</u>	Time	<u>T.Z.</u>	Type			Inj	<u>PrD</u>	CrD
Totals:								3	55	13.672M	0.00K
JONES	AUTAUGA CO.	AL	11/24/2004	05:49	CST	Tornado	F2	0	0	30.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	11/24/2004	06:24	CST	Tornado	F2	0	1	900.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	07/06/2005	12:27	CST	Tornado	F1	0	0	14.00K	0.00K
VIDA	AUTAUGA CO.	AL	07/06/2005	12:36	CST	Tornado	F0	0	0	3.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	07/06/2005	13:56	CST	Tornado	F0	0	0	2.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	11/28/2005	18:41	CST	Tornado	F0	0	0	34.00K	0.00K
MULBERRY	AUTAUGA CO.	AL	02/13/2007	18:22	CST-6	Tornado	EF1	0	0	10.00K	0.00K
PRATTVILLE ARPT	AUTAUGA CO.	AL	02/17/2008	14:58	CST-6	Tornado	EF3	0	50	10.000M	0.00K
PRATTVILLE ARPT	AUTAUGA CO.	AL	08/25/2008	06:25	CST-6	Tornado	EF0	0	0	2.00K	0.00K
MARBURY	AUTAUGA CO.	AL	05/23/2009	12:55	CST-6	Tornado	EF0	0	0	10.00K	0.00K
PRATTVILLE ARPT	AUTAUGA CO.	AL	11/30/2010	09:57	CST-6	Tornado	EF1	0	0	58.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	02/28/2011	17:05	CST-6	Tornado	EF0	0	0	22.00K	0.00K
INDEPENDENCE	AUTAUGA CO.	AL	04/15/2011	19:48	CST-6	Tornado	EF1	0	0	440.00K	0.00K
POSEYS XRDS	AUTAUGA CO.	AL	04/15/2011	19:56	CST-6	Tornado	EF1	0	0	458.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	04/15/2011	20:06	CST-6	Tornado	EF0	0	0	39.80K	0.00K
MULBERRY	AUTAUGA CO.	AL	04/15/2011	20:29	CST-6	Tornado	EF2	0	0	309.00K	0.00K
MULBERRY	AUTAUGA CO.	AL	04/15/2011	20:29	CST-6	Tornado	EF1	0	0	39.80K	0.00K
POSEYS XRDS	AUTAUGA CO.	AL	04/15/2011	21:47	CST-6	Tornado	EF3	3	4	1.240M	0.00K
NEW PROSPECT	AUTAUGA CO.	AL	12/22/2011	14:02	CST-6	Tornado	EF0	0	0	60.00K	0.00K
VINE HILL	AUTAUGA CO.	AL	03/02/2012	21:32	CST-6	Tornado	EF1	0	0	0.00K	0.00K
Totals:								3	55	13.672M	0.00K

	(Sources	111	JAA NCD		педге				_		
Location	County/Zone	<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>
COUNTYWIDE	AUTAUGA CO.	AL	04/07/2003	07:30	сѕт	Flash Flood		0	0	50.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	07/01/2003	06:00	сѕт	Flash Flood		0	0	8.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	09/16/2004	09:15	сѕт	Flash Flood		0	0	8.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	04/01/2005	00:00	сѕт	Flood		0	0	0.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	04/01/2005	05:00	CST	Flash Flood	0.00	0	0	8.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	06/08/2005	18:10	СЅТ	Flash Flood		0	0	11.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	05/10/2006	15:12	сѕт	Flash Flood		0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	02/13/2007	19:23	CST- 6	Flash Flood		0	0	0.00K	0.00K
FORESTER	AUTAUGA CO.	AL	03/27/2009	08:00	CST- 6	Flash Flood		0	0	50.00K	0.00K
<u>FAYS</u>	AUTAUGA CO.	AL	05/07/2009	07:00	CST- 6	Flash Flood		0	0	530.00K	0.00K
PINE FLAT	AUTAUGA CO.	AL	09/19/2009	02:00	CST- 6	Flash Flood		0	0	1.000M	0.00K
PRATTMONT	AUTAUGA CO.	AL	12/22/2013	20:30	CST- 6	Flood		0	0	0.00K	0.00K
Totals:								0	0	1.665M	0.00K

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

32 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>	Mag	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/22/2007	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/05/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/21/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/22/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/02/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/03/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K

AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/20/2012	00:00	CST-6	Drought	0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2012	00:00	CST-6	Drought	0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2013	00:00	CST-6	Drought	0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2013	00:00	CST-6	Drought	0	0	0.00K	0.00K
Totals:							0	0	0.00K	0.00K

9 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>	County/Zone	<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>	PrD	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/24/2003	00:00	сѕт	Extreme Cold/wind Chill		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/07/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/08/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	01/19/2008	06:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	03/01/2009	03:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	02/12/2010	10:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	12/15/2010	07:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/09/2011	13:00	CST- 6	Ice Storm		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/09/2011	21:30	CST- 6	Winter Weather		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

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

<u>Location</u>	County/Zone	<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>
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	09/16/2004	05:30	сѕт	High Wind	71 kts. EG	0	0	2.600M	100.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/12/2005	02:00	сѕт	Strong Wind	40 kts. EG	0	0	1.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/11/2005	14:00	сѕт	Strong Wind	40 kts. EG	0	0	3.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/10/2005	15:00	сѕт	Tropical Storm		0	0	180.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/29/2005	17:00	сѕт	Tropical Storm		0	0	80.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/07/2008	04:40	CST- 6	Strong Wind	40 kts. EG	0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/23/2008	12:00	CST- 6	Tropical Depression		0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/28/2009	05:25	CST- 6	Strong Wind	35 kts. EG	0	0	15.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/13/2009	01:30	CST- 6	Strong Wind	35 kts. EG	0	0	20.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/09/2009	14:00	CST- 6	Tropical Depression		0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	14:36	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	20:57	CST- 6	Strong Wind	39 kts. MG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
Totals:								0	0	2.919M	100.00K

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

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

No/unknown sinkhole events were reported during 01/01/2003 thru 12/31/2013 by the Local Jurisdictions, NOAA NCDC Storm Events Database or the U.S./AL Geological Survey

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

No/unknown landslide events were reported during 01/01/2003 thru 12/31/2013 by the Local Jurisdictions, NOAA NCDC Storm Events Database or the U.S./AL Geological Survey

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

No/unknown earthquake events were reported during 01/01/2003 thru 12/31/2013 by the Local Jurisdictions, homefacts.com, NOAA NCDC Storm Events Database or the U.S./AL Geological Survey

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
Autauga	114	38	881.75	294	7.74

114 Wildfire Events – 1/1/2010 thru 12/31/2013 (Source: Alabama Forestry Commission)

0/Unknown Dam/Levee Failure Events – 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database/Local Input) No/unknown dam/levee failure events occurred or were reported during 01/01/2003 thru 12/31/2013.

Hazard Profiles

I. Thunderstorms

A thunderstorm is a convective cloud that often produces heavy rain, wind gusts, thunder, lightning, and hail. Autauga 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.

The National Weather Service reported 83 severe thunderstorms during the ten-year study period of 2003 - 2013. An estimated \$1.625 Million in property damage and no crop damage resulted from these storms. Three injuries and no deaths were reported during these thunderstorm events. **Table 3-5** shows the historical occurrences of severe thunderstorms during the study period. Each jurisdiction is at risk for thunderstorm events. Of the storms reported 3 affected the entire county, 55 occurred in an unincorporated county area, and the remaining 25 affected only specific municipalities.

On April 25, 2003, Supercell 3 formed over extreme southern Greene County just east of Forkland. The storm started off by producing a weak tornado that moved through by Greene County Steam Plant and crossed the Black Warrior River ending just inside Hale County. The supercell continued strengthening and produced a swath of wind and hail damage along its path. Hail sizes ranged from penny to softball size. Significant wind and hail damage occurred from Autaugaville to Prattville to Montgomery. Several funnel cloud reports were received with the storm. The supercell moved across Russell County and eventually moved into Georgia. Supercell 3 also produced an area of significant wind damage from just west of Prattville to Prattville along and just south of US 82. Numerous trees were down beginning in a wooded area west of CR 3 south of US 82. Reports indicated damage to structures (houses and mobile homes) along US 82 on the west side of Prattville to near the river on Maple Street. Three injuries were reported and these may have occurred as residents were crawling out of damaged structures. Property damages of \$1,000,000 resulted.

On April 1, 2005, a strong line of thunderstorms moved across central Alabama during the afternoon hours. The isolated damage was mainly confined to the Billingsley School property near the intersection of CR 77 and Tom Turner Road. This location was about 1 mile east of Billingsley. A large section of the metal roofing on the school was peeled back. Ceiling insulation and small metal debris littered areas downwind. The exposed classrooms sustained additional damage from rain. Several windows were broken out or cracked by airborne debris. One air conditioner was thrown on its side and damaged. A few trees east of the school were snapped off. Several vehicles in the parking lot suffered dents and broken windows from flying debris. The damage in Billingsley was determined to be caused by straight line winds, according to a National Weather Service meteorologist who surveyed the damages. No deaths or injuries were reported. Property damages of \$350,000 resulted.

Autauga County experienced 83 thunderstorm events in a 10 year period resulting in a greater than 100% (8.30) probability that a thunderstorm event will occur on an annual basis. The total amount of damages for the 83 thunderstorm events was \$1.625 Million with 67 thunderstorm events causing damage resulting in an estimated \$24,254 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 severity that could be experienced by Autauga County due to a thunderstorm event; the ranking is major to minor.

Primary Effects from thunderstorms in Autauga County would include:

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

Hazardous results from significant thunderstorms in Autauga 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.

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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. Lightning is a giant spark of electricity in the atmosphere or between the atmosphere and the ground. In the initial stages of development, air acts as an insulator between the positive and negative charges in the cloud and between the cloud and the ground; however, when the differences in charges becomes too great, this insulating capacity of the air breaks down and there is a rapid discharge of electricity that we know as lightning. Lightning can occur between opposite charges within the thunderstorm cloud (Intra Cloud Lightning) or between opposite charges in the cloud and on the ground (Cloud-To-Ground Lightning). Cloud-to-ground lightning is divided two different types of flashes depending on the charge in the cloud where the lightning originates. Thunder is the sound made by a flash of lightning. As lightning passes through the air it heats the air quickly. This causes the air to expand rapidly and creates the sound wave we hear as thunder. Normally, you can hear thunder about 10 miles from a lightning strike. Since lightning can strike outward 10 miles from a thunderstorm, if you hear thunder, you are likely within striking distance from the storm. The months of June through September are the deadliest as far as lightning is concerned. In an average year, three people will be struck and killed by lightning in Alabama and at least six will be injured. (Source: National Weather Service/Lightning Safety Accessed 11/16/14). Each jurisdiction is equally at risk for lightning events. Lightning strikes can cause power outages, fires, electrocution, disruptions to communication systems, personal injuries, and deaths. The NOAA NCDC reported three lightning events during the ten-year study period of 2003-2013. The lightning events were reported, property damages of \$47,500, no crop damages, no injuries, or deaths were reported as results of lightning events. Table 3-5 shows the historical occurrences of lightning during the study period. The NOAA NCDC reported 3 lightning events during the tenyear study period of 2003-2013; the entire planning area of the county is equally at risk for a lightning event. While the State of Alabama experienced 11-20 deaths as a result of lightning strikes during 2003 – 2013, none of the deaths occurred in Autauga County. Autauga County experienced 3 lightning events in the 10 year period resulting in a 30% probability that a lightning event will occur on an annual basis. The total damages for the 3 lightning events were \$47,500 resulting in an estimated \$15, 833 of expected annual damages from future events. The referenced lightning event(s) are the ones that resulted in the most damages during the past ten year period and serves as the extent/range of magnitude or severity that could be experienced by Autauga County due to a lightning event.

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.

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). During the years 2004-2013, Alabama experienced 11 deaths due to lightning (NOAA, December 18, 2014). The months of June through September are the deadliest as far as lightning is

concerned. In an average year, three people will be struck and killed by lightning in Alabama and at least six will be injured. (*Source: NOAA, December 18, 2014*).

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.

Autauga County experienced 3 lightning events in a 10 year period resulting in a 30% probability that a lightning event will occur on an annual basis. The total amount of damages for the 3 lightning events was \$47,500 with 3 lightning events causing damage resulting in an estimated \$15, 833 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 severity that could be experienced by Autauga County due to a lightning event; the ranking is minimum to minor.

Primary effects from lightning in Autauga County would include:

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

Hazardous results from significant lightning in Autauga 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.

III. Hail

Hail is frequently associated with severe thunderstorms. 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, 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, 1997).

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 severity 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 3-6**. Note that penny size (3/4 inches in diameter) or larger hail is considered severe.

Size	Inches in Diameter				
Pea	¹ / ₄ inch				
Marble/mothball	¹ / ₂ inch				
Dime/Penny	³ / ₄ inch				
Nickel	7/8 inch				
Quarter	1 inch				
Ping-Pong Ball	1 ¹ / ₂ inch				
Golf Ball	1 ³ / ₄ inch				
Tennis Ball	2 ¹ / ₂ inch				
Baseball	2 ³ / ₄ inch				
Tea Cup	3 inches				
Grapefruit	4 inches				
Softball	4 ¹ / ₂ inches				
Source: NWS, January 10, 2003; 2015					

 Table 3-6:
 Estimating Hail Size

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.

The NOAA NCDC reported 39 hail events during the ten-year study period of 2003-2013. An estimated \$2,690,000 in property damage resulted from these events. No crop damage, injuries, or deaths were reported during these hail events. **Table 3-5** shows the historical occurrences of hail events during the study period. Each jurisdiction is at risk for hail. Of the events reported, 22 occurred in an unincorporated county area, and the remaining 17 affected only specific municipalities.

The most significant event during the study period occurred in the unincorporated area of Jones on April 25, 2003 when hail up to softball size (4.5 inches) fell, resulting in \$2,690,000 in property damage. On this day, several steady-state, rotating thunderstorms, referred to as supercells, cut swaths of damage through Alabama. Numerous homes and automobiles were damaged by the large hail. Damaging winds also accompanied the storm. Many trees were snapped off, uprooted, or blown down along the path. Several homes were damaged from the

falling trees. The supercell entered Autauga County and continued strengthening. Supercell 3 continued on its east southeast motion and moved across a large part of Autauga County. A large swath of golf ball size hail occurred and affected locations including Jones, Autaugaville, Booth, Independence, and Prattville. The largest hail observed was softball size. Significant hail damage occurred. Numerous automobiles and homes were damaged by the hail. (*Source: NCDC NOAA*)

Autauga County experienced 39 hail events in a 10 year period resulting in a greater than 100% (3.90) probability that a hail event will occur on an annual basis. The total amount of damages for the 39 hail events was \$2,690,000 with 5 hail events causing damage resulting in an estimated \$538,000 of expected annual damages from future events. The referenced hail event(s) is/are the one(s) that resulted in the most damages during the past ten year period and serves as the extent/range of magnitude or severity that could be experienced by Autauga County due to a hail event; the ranking is minor to major.

Primary Effects from Hail in Autauga County would include:

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

Hazardous results from significant Hail in Autauga County would include:

- 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.
- 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.

IV. Tornados

Tornados 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 3-1** shows the general paths of tornados across the United States.

Figure 3-2 shows the FEMA designated wind zones in the United States. Autauga County is located in Zone III which warrants profiling.

A total of 20 tornados occurred in Autauga County according to NOAA NCDC during 2003 - 2013. An estimated \$13,672,000 in property damage, no crop damage, three deaths and 55 injuries occurred as a result of the reported tornados.

The most significant event during the study period occurred in the Prattville airport area on February 17, 2008 with an EF3 tornado, 6.04 miles in length and 440 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 near the waste water treatment facility south southwest of the city of Prattville. It then tracked northeastward and crossed US Highway 82, US Highway 31, and Cobbs Ford Road. The southern and eastern parts of Prattville sustained significant damage. The highest winds likely occurred along Cobbs Ford Road/East Main Street near McQueen Smith Road and in the Silver Hills Subdivision. An estimated 200 residential homes and 40 businesses were damaged or destroyed. Hundreds of trees were either snapped off or were uprooted along the path. In addition, 50 injuries were reported, but there were no fatalities. Each jurisdiction has been affected by tornado activity in the past. The location of Autauga County in Wind Zone III, past occurrences of tornados, and the potential for future occurrences to cause damage, death, and injuries leaves Autauga County vulnerable to and at risk for tornados. Autauga County experienced 83 tornado events in a 10 year period resulting in a greater than 100% (2.00) probability that a tornado event will occur on an annual basis. The total amount of damages for the 83 thunderstorm events was \$1,625,000. 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 severity that could be experienced by Autauga County due to a tornado event; the ranking is major.

Primary effects from Tornados in Autauga 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 Autauga County would include:

- 1. Collapse of structures can leave people homeless.
- 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.
- 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.

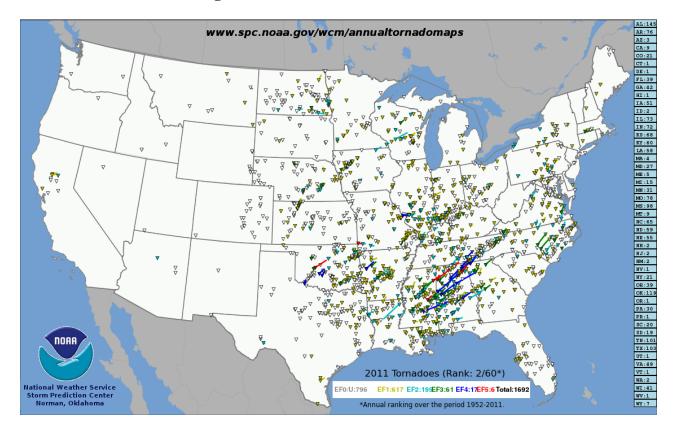
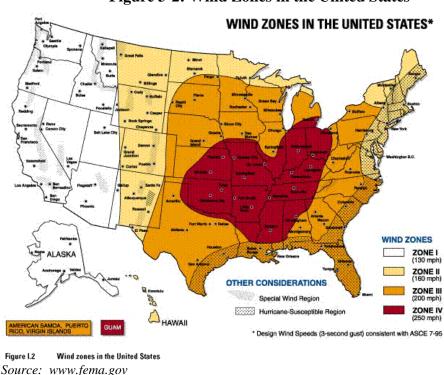


Figure 3-1: Generalized Tornado Paths

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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, which goes from 2003-2013, events shown in **Table 3-5** 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.

Figure 3-2: Wind Zones in the United States

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Table 3-7: Fujita Tornado Scales

<u>Fujita To</u> Category	<u>rnado Scale</u> 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.
Enhanced	Fujita Tornado	Scolo
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.

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V. Floods/Flash Floods

There are three types of flooding that affect Autauga County: (1) general flooding, (2) storm water runoff, and (3) flash flooding. General flooding occurs in areas where development has encroached into flood-prone areas. Storm water runoff causes flooding in areas that have inadequate drainage systems. Flash flooding is caused when a large amount of rain falls within a short period of time. **Table 3-5** shows severe flooding events in Autauga County recorded by NOAA NCDC. Between 2003 and 2013 there were 12 occurrences of flash flooding and 2 floods in the county. Damages from these events were only as a result of flash flooding and totaled \$1,665,000 in property damage, no crop damage, no deaths, and no injuries.

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.

Dam-break floods may occur due to structural failures (e.g., progressive erosion), overtopping or breach from flooding, or earthquakes. Dam failures are potentially the worst flood events. Dam safety has been an ongoing hazard mitigation issue in the State of Alabama for the past decade, 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.

Approximately 1,700 privately owned dams would fit into the category proposed by the law. According to *HAZUS MH 2.1*, Autauga County has 15 High Density Polyethylene (HPDE - Earth) Dams. No historical records are available of dam/levee failures in Autauga 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.

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 occurrence intervals and their probabilities of occurrence. Autauga County has 100-year flood probabilities.

Table 3-8: 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%						
(Source: FEMA, August 2001)							

On September 19, 2009, a slow moving upper level disturbance helped spark several days of thunderstorms across Central Alabama. The storms were slow moving, and produced very heavy rainfall in some locations, which led to flash flooding. More than 40 cars of a train derailed near the Mortar Creek crossing, due to a portion of the tracks being washed out from heavy rain. A portion of CR-64 nearby was also washed out. Property damages of \$1,665,000 resulted.

Autauga County experienced 12 flood/flash flood events in a 10 year period resulting in a 100% (1.20) probability that a flood/flash flood event will occur on an annual basis. The total amount of damages for the 12 flood/flash flood events was \$1,665,000 with 8 flash flood events causing damage resulting in an estimated \$208,125 of expected annual damages from future events. The referenced flood/flash 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 severity that could be experienced by Autauga County due to a flood/flash flood event; the ranking is minor to major. According to ncdc.noaa.gov storm events data, Autuaga County's extent of flooding during this plan's study period is approximately two feet deep (knee-deep) flood waters which occurred on March 27, 2003.

Primary Effects from Floods in Autauga County would include:

- 1. Loss of life
- 2. Property damage

- 3. Crop damage
- 4. Dam and levee failure

Hazardous results from significant flood in Autauga 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 inadaptable 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

Autauga 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. The National Flood Insurance Program (NFIP) requires local participation. **Table 3-9** shows the current NFIP status of each jurisdiction. 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, Autauga 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 1-1**.

	Table 3-9: Autauga CountyNational Flood Insurance Program Status by Jurisdiction									
CID	Community Name	Initial FHBM Identified	Initial FIRM Identified	Current Eff. Map Date	Reg- Emer Date	Tribal				
010314#	Autauga County	03/24/78	12/18/85	06/16/09	12/18/85	No				
010002#	City of Prattville	05/03/74	08/15/78	07/18/11	08/15/78	No				
010001#	Town of Autaugaville	06/07/74	12/18/85	06/16/09	02/03/86	No				
010500#	Town of Billingsley		06/16/09	09/03/14	06/16/10	No				
Source: F	EMA Commun	ity Status Boo	k Report as o	f February 6, 2	014	•				

Repetitive Loss Properties

Repetitive loss properties are those for which two or more losses of at least \$1,000 each have been paid under the National Flood Insurance Program (NFIP) within any 10-year period since 1978. *FEMA – Local Multi-Hazard Mitigation Planning Guidance, July 1, 2008.*

Since the 2009 Plan, Autauga County utilized hazard mitigation monies to buy out 39 repetitive loss residential properties in a Manufactured Housing Park located along Pine Creek. The manufactured houses were moved to higher ground and the area will be turned in to an open space park. One repetitive loss commercial property remains at the corner of Highway 31 and County Road 4. Autauga County has no reported Severe Repetitive Loss properties at this time.

Flood Prone Areas

Autauga County is prone to flooding along the Alabama River and other smaller creeks run through the county including Pine Creek, Ivy Creek, Noland Creek, Mortar Creek, Mulberry Creek, Bear Creek Swamp, Breakfast Creek, Bridge Creek Swamp, etc.

VI. Droughts/Extreme Heat

Drought occurs when there is a deficiency of precipitation over an extended period of time. Climatic factors, such as high temperature, high winds, and low relative humidity, can contribute to the severity of a drought. No society is immune to the social, economic, and environmental impacts of a drought. There are two primary types of drought: meteorological and hydrological droughts. These events can result in agricultural and socioeconomic droughts.

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.

A drought's severity 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 severity. Third, in contrast with other natural hazards, the impact of drought is less obvious and may be spread over a larger geographic area. These characteristics have hindered the preparation of drought contingency or mitigation 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 severity 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 3-10**. 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.

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.

During the past ten years, Autauga County experienced D2 Severe Drought to D3 Extreme Drought in 2006; D1 Moderate to D4 Exceptional Drought in 2007; D0 Abnormally Dry to D4 Exceptional Drought in 2008; D2 Severe Drought in 2010; D1 Moderate to D3 Extreme Drought in 2011; and, D2 Severe Drought in 2012 and 2013. No deaths, injuries, property or crop damages were reported. Possible impacts resulting from the drought categories experienced by Autauga County include: D0 - Slow growth of plants, crops and pastures; water deficits. D1 – Crop and pasture damages; streams, reservoirs, or wells low; some water shortages; voluntary water-use restrictions requested. D2 – Crop or pasture losses likely; water shortages common; water restrictions imposed. D3 – Major crop/pasture losses; widespread water shortages or restrictions. D4 – Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells, creating water emergencies.

Autauga County experienced 32 drought/extreme heat events in a 10 year period resulting in a greater than 100% (3.20) probability that a drought/extreme heat event will occur on an annual basis. The total amount of damages for the 32 drought/extreme heat events was \$0 with no drought/extreme heat events causing damage resulting in an estimated \$0 of expected annual damages from future events. No deaths or injuries were reported. The referenced drought/extreme heat event(s) are the ones that resulted in the most damages, deaths, and injuries during the past 10 year period and serves as the extent/range of magnitude or severity that could be experienced by Autauga County due to a drought/extreme heat event; the ranking is minimum to minor.

Primary effects from Drought and Excessive Heat in Autauga 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 Autauga 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.

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

Table 3-10: Heat Index/Heat Disorders

(Source: National Weather Service, 1997)

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.

Table 3-5 reflects that the NOAA NCDC reported 32 instances of drought for Autauga County from 2003-2013. No crop or property damages were reported. There were no reports of extreme heat events during this ten year period.

The National Weather Service reported three instances of drought for Autauga County in 2006. 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. An initial five wells were selected to track water levels around the state, with plans to increase the number of monitoring wells to 25. Drought conditions continued to escalate into 2007 and by August the Federal Government declared all 67 Alabama counties Natural Disaster areas. Alabama reported a rainfall deficit that reached nearly 30 inches by 2007. Impacts were felt by farmers of all crops, including timber, livestock producers, and the forestry service. Additionally, electricity providers were affected as river and lake levels dropped and some municipalities were forced to place restrictions on water consumption as supplies became strained. State Agriculture Commissioner Ron Sparks referred to this event as the worst drought in 30-40 years.

VII. Winter Storms/Frost Freezes/Heavy Snow/Ice Storms/Winter Weather/Extreme Cold

Autauga County is vulnerable to extreme winter weather conditions such as extreme cold temperatures, snow, and ice. **Table 3-5** shows the winter storm/extreme cold/frost freeze/heavy snow/ice storm/winter weather events that have affected Autauga County from 2003- 2013. In the category of winter storms/frost freezes/heavy snow/ice storms/winter weather/extreme cold events, nine events were reported for Autauga County between 2003 and 2013 – 2 frost freeze events; 2 heavy snow event; 1 ice storm event; 3 winter weather events; and 1 extreme cold event. The entire planning area is equally at risk to all hazards in this category.

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 it 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.

An extreme cold event on January 24, 2003 resulted in the coldest temperatures in 7 years occurring across much of North and Central Alabama and lasting for about two days. Early morning temperatures ranged from 2 to 10 degrees. The coldest temperatures were measured in outlying areas. Although no new records were established, these temperatures were very cold for the Deep South. Many area residents reported frozen and broken water pipes as a result of the extended cold. Several lawn sprinkler systems also froze and broke making many areas very icy. No deaths, injuries, property or crop damages were reported.

A frost/ freeze event on April 7-8, 2007 resulted in an unusually cold spring time air mass settling across Central Alabama and bringing record cold temperatures to the entire region. Subfreezing temperatures were recorded as far south as Wetumpka, Alabama and mid to upper 20s were recorded as far south as Clanton in Chilton County, Alabama. Fruit crops suffered heavy damage, although dollar loss estimates were not known. No deaths, injuries, or property damages were reported.

A heavy snow event occurred on March 1, 2009 from a late winter storm system that had also caused some severe thunderstorms the previous day. The snow began around 2 a.m. and accumulated up to 2 to 3 inches before ending around noon. No deaths, injuries, or property damages were reported.

An ice storm event occurred on January 9, 2011 as a low pressure system moved across the northern Gulf of Mexico and moisture pushed northward into Central Alabama interacting with the cold air that was already in place across the area. The combination of moisture and cold air brought a wintry mix of precipitation to most of Central Alabama, Sunday afternoon through Monday morning. Ice and sleet were the predominant precipitation type with around .50 inch of ice and between 1 to 3 inches of sleet reported across southern portions of the area. Light wintry precipitation began to spread into the area during the early afternoon hours on January 9. Even though amounts were light, accumulations were increasing travel concerns and the risk for vehicle accidents. As the strong storm system neared the area, several bands of wintry precipitations rates over 1 inch an hour. As snow and ice began to accumulate, travel conditions quickly became hazardous. Several reports of "thundersnow" were also noted. Ice accumulation over one quarter inch was reported across Autauga County. Ice accumulation led to numerous road closures. No deaths, injuries, property or crop damages were reported.

Autauga County experienced 9 storms in the category of winter storm/extreme cold/frost freeze/heavy snow/ice storm/winter weather events in a 10 year period resulting in a less than 100% (.90) probability that a winter storm/extreme cold/frost freeze/heavy snow/ice storm/winter weather event will occur on an annual basis. The total amount of damages for the 9 winter

storm/extreme cold/frost freeze/heavy snow/ice storm/winter weather events was \$0 with no winter storm/extreme cold/frost freeze/heavy snow/ice storm/winter weather events causing damage resulting in an estimated \$0 (unknown) of expected annual damages from future events. The referenced events are the ones that resulted in the most damages, deaths, and injuries during the past ten year period and serve as the extent/range of magnitude or severity that could be experienced by Autauga County due to such events; the ranking is minimum to minor.

Primary effects from winter storms in Autauga County would include:

- 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 Autauga County would include:

- 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.

VIII. Hurricanes/Tropical Storms/Tropical Depressions/High Winds/Strong Winds

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.

According to data from the National Oceanic and Atmospheric Administration's National Hurricane Center, there are three classification levels of storms based on wind speed. The first, a tropical depression, is "an organized system of clouds and thunderstorms with a defined surface cyclonic closed circulation and maximum sustained winds of 38 mph or less." A tropical storm is the second level and is described as "an organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39-73 mph." A "hurricane," which is the third classification level, is "an intense tropical weather system of strong thunderstorms with a well-defined surface circulation and maximum sustained winds of 74 mph or higher." Individual hurricanes vary in intensity and are categorized using the Saffir-Simpson Hurricane Scale.

NOAA measures wind speeds for thunderstorm/wind and hurricane events in knots (kts) while the Saffir-Simpson scale, shown later in the Hurricane profile, 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 3-11**, 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, storm surge, and/or flooding impacts) due to the intensity of the oncoming hurricane.

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.		

 Table 3-11:
 Saffir-Simpson Hurricane Wind Scale

(Source: National Hurricane Center – NOAA)

Threats Related to Hurricanes

Hurricanes impact regions in a variety of ways. The intensity of the storm, the speed of the winds, whether the storm moves through a region 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. Autauga County is not directly affected by storm surges; therefore, no additional analysis will be completed on the topic.

On September 16, 2004, the effects of what was once Hurricane Ivan resulted in thousands of trees and power lines being snapped off or blown down. Hundreds of homes suffered varying degrees of roof and structural damage. At least 800 households were displaced for at least one night due to hurricane damage. At least 8000 customers were without power at the height of the storm. Several residences were without power for up to 5 days. At least 75 farming operations requested aide due to wind damage. Many roadways were impassable due to fallen trees. Maximum wind gusts were estimated around 80 miles an hour. Doppler radar estimated 5 to 7 inches of rain during the event which caused a few roads to flood and become temporarily impassable. Property damages of \$2,600,000 and crop damages of \$100,000 were reported

On August 29, 2005, the effects of what was once Hurricane Katrina resulted in several trees and power lines being blown down across Autauga County. Power outages were widespread. Several vehicles and homes were damaged by the fallen trees. Property damages of \$80,000 were reported.

Autauga County experienced 14 hurricane/tropical storm/tropical depression/high wind/strong wind events in a 10 year period resulting in a greater than 100% (1.40) probability that a hurricane/tropical storm/tropical depression/high wind/strong wind event will occur on an annual basis. The total amount of damages for the 14 hurricane/tropical storm/tropical depression/high wind/strong wind events was \$3,019,000 with 14 hurricane/tropical storm/tropical storm/tropical depression/high wind/strong wind events causing damage resulting in an estimated \$ 215,643 of expected annual damages from future events. No deaths or injuries were reported. The referenced hurricane/tropical storm/tropical depression/high wind/strong wind 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 severity that could be experienced by Autauga 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

 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

Autauga 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 Autauga County does not feel the effects of storm surges, other effects including heavy rain, flooding, winds, and tornados often have significant impacts on Autauga County.

X. Sinkholes/ Expansive Soils

Sinkholes

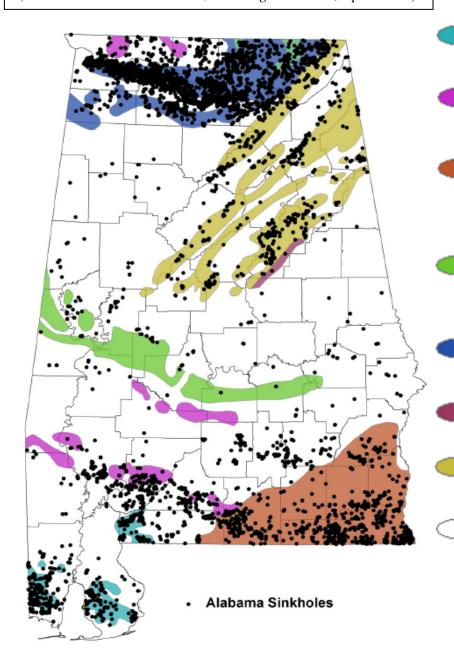
Naturally occurring Sinkholes occur where limestone, carbonate rock, salt beds, or rocks can be dissolved by ground water circulating through them. As the rock dissolves, spaces and caverns develop underground. The land usually stays intact until the underground spaces become too large to support the 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.

According to the Geological Survey of Alabama's sinkhole data as of 2010, Autauga County has experienced sinkholes; however, the sinkhole density in Autauga County is low. **Figure 3-3** shows sinkholes susceptibility in Autauga County.

Expansive Soils

Expansive soils are soils that swell when they come in contact with water. The presence of clay is generally the cause of such behavior. **Figure 3-4** shows the general soil areas for the state. Autauga County has Coastal Plains and Major Flood Plains and Terraces. There were no expansive soils reported from NOAA or local sources during the time frame covered by the plan. Though these soils have shrink-swell potential, the committee does not feel a profile is necessary.

Figure 3-3: Autauga County Sinkhole Susceptibility (Source: Alabama State Hazard Mitigation Plan, April 2013)



Fissures and voids present to a depth of 50 ft (15 m) in areas of subsistence from piping in thick, unconsolidated material

- Fissures, tubes and caves generally less than 1,000 ft (300 m) long; 50 ft (15 m) or less vertical extent; in gently dipping to flat-lying beds of carbonate rock
- Fissures, tubes and caves generally .ess than 1,000 ft (300 m) long; 50 ft (15 m) or less vertical extent; in gently dipping to flat-lying beds of carbonate rock beneath an overburden of noncarbonated material 10 ft to 200 ft thick
- Fissures, tubes, and caves generally absent where present in small isolated areas, less than 50 ft (15 m) long; less than 50 ft vertical extent; in gently dipping to flat-lying beds of carbonate rock

Fissures, tubes, and caves generally over 1,000 ft long; 50 ft to over 250 ft vertical extent, in gently dipping to flat-lying beds of carbonate rock

Fissures, tubes, and caves generally over 1,000 ft long; 50 ft to over 250 ft vertical extent in metamorphosed limestone, dolostone, and marble

Fissures, tubes, and caves generally over 1,000 ft long; 50 ft to over 250 ft vertical extent in moderately to steeply dipping beds of carbonate rock

) No Karst

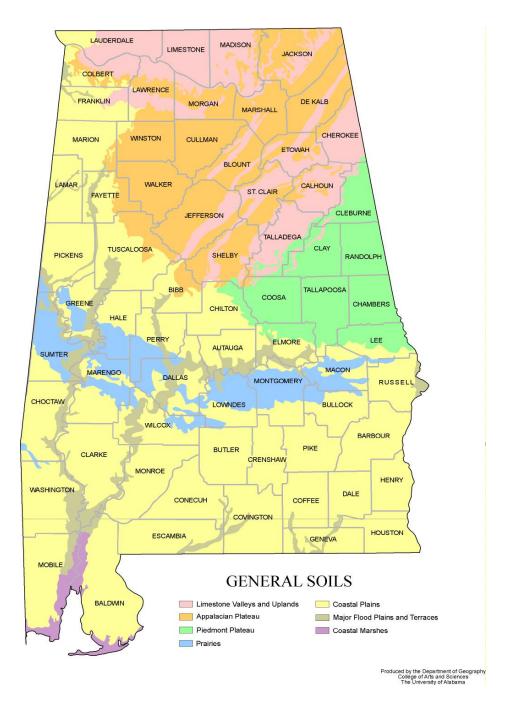


Figure 3-4: General Soils of Alabama

There were no active sinkholes reported from NOAA for the 10 year period of January 1, 2003 – December 31, 2013.

Primary effects from sinkholes in Autauga County would include:

- 1. Property damage
- 2. Underground infrastructure damage
- 3. Impassable roads
- 4. Building collapse

Hazardous results from significant sinkholes in Autauga County would include:

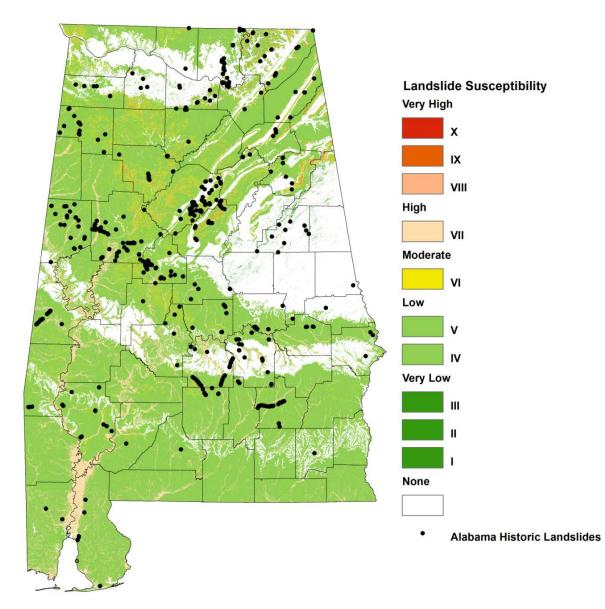
- 1. Formation of sinkholes can destroy any structure it underlies. Houses, businesses, and government buildings are extremely susceptible to this damage.
- 2. Underground power, gas, and water lines can be broken causing leakage and breaks that can disrupt service and have negative environmental effects.
- 3. The ground underneath a road sinks and either leaves the road unsupported or destroys it completely. This is extremely dangerous for unsuspecting motorists and repair crews.
- 4. Unsupported foundations of buildings allow for collapse of the foundation and possibly the entire structure resulting in mass amounts of injury and damage as well as possible death.

X. Landslides

A landslide is defined by the United States Geologic Survey as the movement of rock, debris, or earth down a slope. Various natural and man-induced triggers can cause a landslide. Naturally induced landslides occur as a result of weakened rock composition, heavy rain, changes in groundwater levels, and seismic activity. Geologic formations in a given area are key factors when determining landslide susceptibility. The three underlying geologic formations present within the region are the Alluvial, Eutaw Formation, and Tuscaloosa groups. These groups are classified as having low to very low susceptibility to slope failure. **Figure 3-5** shows that most of Autauga County is at a low risk of incidence. There were no landslides reported from NOAA or the U.S. Geological Survey during the time frame covered by this plan. Autauga County experienced no landslide event in a 10 year period resulting in an unknown probability that a landslide event will occur on an annual basis. With no landslide event occurring expected annual damages from future events is unknown. No deaths or injuries were reported.

Figure 3-5: Autauga County Landslide Susceptibility

(Source: Alabama State Hazard Mitigation Plan, April 2013)



Primary effects from landslide in Autauga County would include:

- 1. Property damage
- 2. Impassable roads
- 3. Sediment erosion
- 4. Underground infrastructure damage

Hazardous results from landslide in Autauga County would include:

- 1. Landslides move with tremendous force capable of destroying most structures in their path while carrying anything it comes in contact with.
- 2. Material from landslides can damage and destroy roads as well as block them with debris resulting in disruption to business and other activity.
- 3. Removed sediment can leave the surrounding area bare and prone to erosion.
- 4. The flow of a landslide can rip underground pipes and wiring from an area as well as bury them deeper under debris creating a loss of services.

XI. Earthquakes

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 severity 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 severity 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 3-12**. 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 3-12:	Earthquake PGA,	Magnitude and	Intensity Comparison	n
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PGA (%g)	Magnitude (Richter)	Intensity (MMI)	Description (MMI)
< 0.17 - 1.4	1.0 - 3.0	Ι	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.g	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.

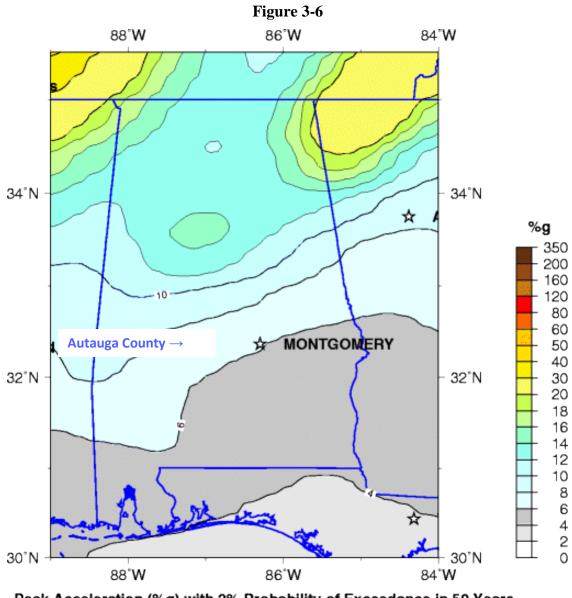
The hazards associated with earthquakes include anything that can affect the lives of humans, including surface faulting, ground shaking, landslides, liquefaction, tectonic deformation, tsunamis, and seiches. Earthquake risk is defined as the probability of damage and loss that would result if an earthquake 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 that 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. Three zones of frequent earthquake activity affecting Alabama are the New Madrid Seismic Zone (NMSZ), the Southern Appalachian Seismic Zone (SASZ) (also called the Eastern Tennessee Seismic Zone), and the South Carolina Seismic Zone (SCSZ). The NMSZ lies within the central Mississippi Valley, extending from northeast Arkansas through southeast Missouri, western Tennessee, and western Kentucky, to southern Illinois. The SASZ extends from near Roanoke in southwestern Virginia southwestward to central Alabama. Considered a zone of moderate risk, the SASZ includes the Appalachian Mountains. Most of the earthquakes felt in Alabama are centered in the SASZ. The hypocenters of earthquakes in this zone are on deeply buried faults. The SCSZ is centered near Charleston South Carolina and encompasses nearly the whole State.

No earthquakes have occurred in Autauga County. GSA is currently working to better define seismic hazards and impacts throughout the county. **Figure 3-6** shows the Percent Ground Acceleration (PGA) with two percent 50 year exceedance probability. The USGS database shows that there is a 0.60% chance of a major earthquake (= or > 5.0 magnitude) within 31 miles of Autauga County, AL within the next 50 years. The risk of a significant, damage-causing earthquake in Autauga County is very low.

Although many areas of the United States are better known for their susceptibility, earthquakes do occur in Alabama. **Figure 3-7** shows the seismic zones of the Southeastern United States, which includes Alabama, as well as the epicenters of earthquakes recorded in the state from 1886-2007 as provided by the Geological Survey of Alabama and noted in the Alabama EMA Earthquake Book 2002. According to the Alabama Geological Survey/USGS Database, Autauga County experienced no earthquake events in the past ten years (January 1, 2003 – December 31, 2013) as noted in **Table 3-5**.

In 1916 on October 18, a strong earthquake occurred on an unnamed fault east of Birmingham. It was apparently most strong at Easonville. Near the epicenter, chimneys were knocked down, windows broken, and frame buildings were greatly shaken. It was noted by residents in seven states and covered 100,000 square miles.



Peak Acceleration (%g) with 2% Probability of Exceedance in 50 Years site: NEHRP B-C boundary National Seismic Hazard Mapping Project (2008)

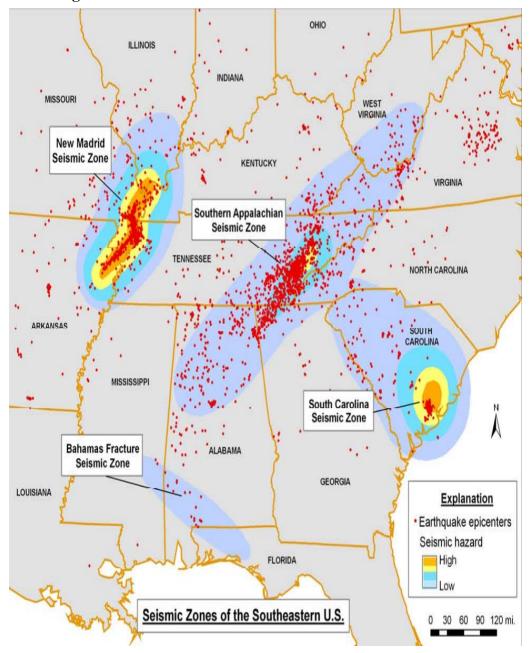


Figure 3-7: Seismic Zones of the Southeastern United States

Source: Geological Survey of Alabama, 2010

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.

Autauga County experienced no earthquake events in a 10 year period resulting in a less than 0% (.00) probability that an earthquake event will occur on an annual basis. With no earthquake events causing damage resulting in an estimated \$0 or unknown expected annual damages from future events. No deaths or injuries were reported.

Primary effects from earthquake in Autauga County would include:

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

Hazardous results from earthquake in Autauga County would include:

- 1. Shaking can cause cracking of roads, bridges, or buildings, which may also lead to collapse.
- 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 Autauga 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.

XII. Wildfires

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. Autauga County is susceptible to wild/forest fires especially during times of drought. According to the Alabama Forestry Commission's Forest Resource Report of 2012, Autauga County has a total of 305,643 acres of forestland, which accounts for 98 percent of the total land area in the county – acres are made up of 162,364 acres of softwoods; 31,145 acres of oak-pine; and 112,134 acres of hardwoods.

The frequency and severity of wildfires is dependent on weather and on human activity. 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 3-5** shows the number of fires and acres burned during the period 2010 to 2013, as recorded by the Alabama Forestry Commission. Autauga County had a total of 114 fires during this three year period, affecting a total of 882 acres.

The National Forest Service (NFS) maintains data nationwide and produces various maps and forecasts daily under the Wildland Fire Assessment System (WFAS). A review of this data showed Autauga County has a 1-4 percent probability of a fire occurring because of a lightning strike. The probability of ignition by lightning depends mainly on fuel moisture.

Autauga County experienced 114 wildfire events in a three year period resulting in a greater than 100% (38.00) probability that wildfire event will occur on an annual basis. The total amount of acres burned was 882 multiplied by \$1,900 (the average market value for an acre of land in Autauga County) equals \$1,675,800 damages for the 114 wildfire events with 114 wildfire events causing damage resulting in an estimated \$14,700 multiplied by 1.09 (projected loss expresses an estimated damage amount per future occurrence by converting the average loss figures from a midpoint of 2008 dollars to 2014 dollars - \$1 in 2008 = \$1.09 in 2014...a cumulative rate of inflation of 9%) equals a total of \$16,023 of expected annual damages from future events. No

deaths or injuries were reported. The extent/range of magnitude or severity that could be experienced by Autauga County due to a wildfire event is minimum to minor.

Primary effects from wildfire in Autauga County would include:

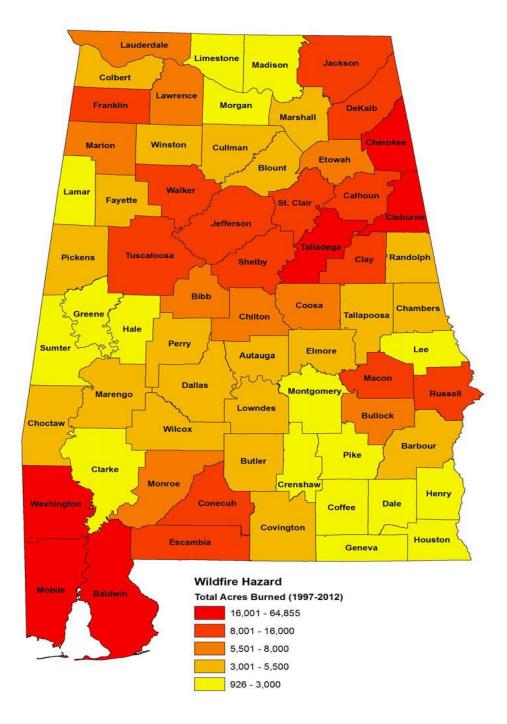
- 1. Loss of property
- 2. Loss of livestock
- 3. Destruction of wilderness
- 4. Crop destruction

Hazardous results from significant wildfire in Autauga 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.

Table 3-13: Wildfires in Autauga County 2010-2013								
County	Total # of Fires	Average # of Fires	Total Acres Burned	Average Acres Burned	Average Fire Size			
Autauga	114	38	881.75	293.91	7.74			

Source: Alabama Forestry Commission, 2014



Map 3-1 Alabama Wildfire Hazard

XIII. Dam/Levee 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 Autauga 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 Autauga County during 2003 - 2013.

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 Autauga 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. According to HAZUS-MH 2.1 2012 and NOAA, Autauga County has 15 HPDE – Earth Dams. Two of the HPDE dams - Crystal Lake Dam near Autaugaville and Pickering Lake Dam are classified as having high hazard potential, meaning failure or misoperation would probably result in the loss of human life. Seven of the HPDE dams - Circle A Ranch Dam, R M Pendergrass Dam, O Dell Lake Dam, Idlewild Lake Dam, Underwood Lake Dam, Prattville Lake Dam and WT Palmer Lake Dam are listed in the significant risk category meaning their failure would probably not result in the loss of life but would result in economic loss, environmental damage, and disruption of lifeline facilities. The remaining six dams in the county are listed as low risk meaning that their failure or misoperation

would not result in the loss of life and only result in low economic or environmental damage. Two of the dams are located in a municipality. Most are located in sparsely populated areas scattered throughout the unincorporated jurisdiction. **Table 3-13** shows risk categories of dams. **Table 3-14** provides an inventory listing of all the dams in Autauga County and includes additional data on each.

An estimated 2,228 dams are located in Alabama. As of March 2010 the 2009 dams are listed in the National Inventory of Dams (NID) and maintained by the USACE. The Tennessee Valley Authority (TVA), USACE, Alabama Power Company (APCo), and the Alabama Electric Cooperative, Inc. have jurisdiction over approximately 32 federally regulated hydroelectric, navigation, and flood control project dams in Alabama. Some existing dams have inadequate spillways and embankments. Many dams are poorly maintained. *(Source: Alabama State Hazard Mitigation 2013 Plan Update)*

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.

Primary effects from Dam failure in Autauga 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 Autauga 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.

Table 3-14: County Dams Risk Categories							
Risk Categories	Number of Dams						
High - loss of one human life is likely if the dam fails	2						
Significant - possible loss of human life and likely significant property or environmental destruction if the dam fails if the dam fails	7						
Low - no loss of life and low economic or environmental damage	6						
Total	15						
(Source: HAZUS MH 2.1 Accessed 2015)							

Dam Name	NID ID	River	NID Height	NID Storage	Year Completed	Drainage Area	Hazard	County	Longitude	Latitude
CIRCLE A RANCH	AL00906	TR- BRIDGE CREEK	35.00	158.00	1966	0.00	S	AUTAUGA	32.588330	-86.471670
RM PENDERGRASS	AL00905	WHITE WATER CREEK	17.00	50.00	1936	0.00	S	AUTAUGA	32.528329	-86.621670
CAMP TUKABATCHEE LAKE	AL00903	TR- BRIDGE CREEK	22.00	61.00	1951	0.00	L	AUTAUGA	32.573329	-86.516670
O DELL LAKE	AL00902		0.00	0.00	0	0.00	S	AUTAUGA	32.533330	-86.503329
IDLEWILD LAKE	AL00899	HANEY BRANCH	22.00	123.00	1954	0.00	S	AUTAUGA	32.468329	-86.561669
M A RICKARD	AL00895	TR- ALABAMA RIVER	17.00	56.00	1958	0.00	L	AUTAUGA	32.348330	-86.793330
CRYSTAL LAKE	AL00898	WHITE WATER CREEK	18.00	50.00	1941	0.00	Н	AUTAUGA	32.434999	-86.639999
UPCHURCH LAKE	AL00894	TR- ALABAMA RIVER	18.00	51.00	1967	0.00	L	AUTAUGA	32.348330	-86.801670
UNDERWOOD LAKE	AL00896	BEAVER CREEK	29.00	146.00	1956	0.00	s	AUTAUGA	32.469990	-86.766670
PRATTVILLE LAKE	AL01369	AUTAUGA CREEK	27.00	86.00	1920	0.00	S	AUTAUGA	32.459999	-86.475000
PRATTVILLE INDUSTRIAL BD	AL01796	TR- ALABAMA RIVER	20.00	496.00	1976	0.00	L	AUTAUGA	32.396670	-86.476670
JIM ADAMS LAKE DAM	AL01797	TR- ALABAMA RIVER	15.00	240.00	1976	0.00	L	AUTAUGA	32.395000	-86.815000
PICKERING LAKE DAM	AL01795		0.00	0.00	0	0.00	Н	AUTAUGA	32.661669	-86.901669
W T PALMER	AL01983	TR- HANEY BRANCH	0.00	64.00	1965	.39	S	AUTAUGA	32.433329	-86.549999
ANN UPCHURCH #2	AL01982	TR- ALA RIVER	0.00	99.00	1966	.19	L	AUTAUGA	32.316670	-86.799999

 Table 3-15: Autauga County Dam Inventory List

(Source: HAZUS-MH 2.1 Accessed 2015)

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Section Four: Vulnerability Assessment

In Section Three, the primary effects and hazardous results were considered for all identified hazards. In this section 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 3-5** and for each jurisdiction in their individual Hazard Event table in Section Five of this plan.

Vulnerability is the extent to which something is damaged by a hazard. Vulnerability is very often measured using "damage functions." These are based on studies of how buildings perform when they are exposed to hazards. Similar functions are available for infrastructure and other physical assets. Injury and mortality functions (how many people are injured or die during events) are also sometimes used as indicators of vulnerability, but these are generally not as reliable as functions for physical assets because there are many more variables.

Hazard Impacts

Thunderstorms (Source: NCDC NOAA)

Damage from thunderstorms can have a wide range of severity. All jurisdictions are vulnerable to thunderstorm events. Autauga County experiences storms every year with varying frequency and intensity. Two thunderstorm events in Autauga County during 2003-2013 were on April 25, 2003, Supercell 3 formed over extreme southern Greene County just east of Forkland. The storm started off by producing a weak tornado that moved through by Greene County Steam Plant and crossed the Black Warrior River ending just inside Hale County. The supercell continued strengthening and produced a swath of wind and hail damage along its path. Hail sizes ranged from penny to softball size. Significant wind and hail damage occurred from Autaugaville to Prattville to Montgomery. Several funnel cloud reports were received with the storm. The supercell moved across Russell County and eventually moved into Georgia. Supercell 3 also produced an area of significant wind damage from just west of Prattville to Prattville along and just south of US 82. Numerous trees were down beginning in a wooded area west of CR 3 south

of US 82. Reports indicated damage to structures (houses and mobile homes) along US 82 on the west side of Prattville to near the river on Maple Street. Three injuries were reported and these may have occurred as residents were crawling out of damaged structures. Property damages of \$1,000,000 resulted.

On April1, 2005, a strong line of thunderstorms moved across central Alabama during the afternoon hours. The isolated damage was mainly confined to the Billingsley School property near the intersection of CR 77 and Tom Turner Road. This location was about 1 mile east of Billingsley. A large section of the metal roofing on the school was peeled back. Ceiling insulation and small metal debris littered areas downwind. The exposed classrooms sustained additional damage from rain. Several windows were broken out or cracked by airborne debris. One air conditioner was thrown on its side and damaged. A few trees east of the school were snapped off. Several vehicles in the parking lot suffered dents and broken windows from flying debris. The damage in Billingsley was determined to be caused by straight line winds, according to a National Weather Service meteorologist who surveyed the damages. No deaths or injuries were reported. Property damages of \$350,000 resulted.

Lightning (Source: NCDC NOAA)

Lightning can cause substantial property damage and loss of human lives. All jurisdictions are vulnerable to lightning events. A lightning event that occurred on March 9, 2011 resulted in a house on Pine Crest Street in Prattville and a house on Highway 31 in Pine Level being damaged. Lightning also struck a house in Pine Level causing a fire and leaving minort structural damage. Downed trees also caused structural damages during this event.

Hail (Source: NCDC NOAA)

The most significant event during the study period occurred in the unincorporated area of Jones on April 25, 2003 when hail up to softball size (4.5 inches) fell, resulting in \$2,690,000 in property damage. On this day, several steady-state, rotating thunderstorms, referred to as supercells, cut swaths of damage through Alabama. Numerous homes and automobiles were

damaged by the large hail. Damaging winds also accompanied the storm. Many trees were snapped off, uprooted, or blown down along the path. Several homes were damaged from the falling trees. The supercell entered Autauga County and continued strengthening. Supercell 3 continued on its east southeast motion and moved across a large part of Autauga County. A large swath of golf ball size hail occurred and affected locations including Jones, Autaugaville, Booth, Independence, and Prattville. The largest hail observed was softball size. Significant hail damage occurred. Numerous automobiles and homes were damaged by the hail. All jurisdictions are vulnerable to hail events. (*Source: NCDC NOAA*)

Tornados (Source: NCDC NOAA)

The impacts of tornados can be far-reaching. Life, property, and personal items are at risk. Tornados 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.

Areas with higher population densities pose the greatest potential for property damage, injury, and death. Census Tract 205 is the most densely populated area in the county, having 2,436.09 persons per square mile. 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. Autauga County has a total of 4,845 mobile homes countywide. This represents 21.8% of the total number of housing units in the county. (*Sources: U.S. Census Bureau, 2010-2012 American Community Survey and USA.com*)

The most significant event during the study period occurred in the Prattville airport area on February 17, 2008 with an EF3 tornado, 6.04 miles in length and 440 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 near the waste water treatment facility south southwest of the city of Prattville. It then tracked northeastward and crossed US Highway 82, US Highway 31, and Cobbs Ford Road. The southern and eastern parts of Prattville sustained significant damage. The highest winds likely occurred along Cobbs Ford Road/East Main Street near McQueen Smith Road and in the Silver Hills Subdivision. An estimated 200 residential homes and 40 businesses were damaged or destroyed. Hundreds of trees were either snapped off or were uprooted along the path. In addition, 50 injuries were reported, but there were no fatalities. Each jurisdiction has been affected by tornado activity in the past. The location of Autauga County in Wind Zone III, past occurrences of tornados, and the potential for future occurrences to cause damage, death, and injuries leaves Autauga County vulnerable to and at risk for tornados.

TABLE 4-1: COMMUNITY SAFE ROOMS IN AUTAUGA COUNTY

There are no community safe rooms at this time.

Floods/Flash Floods (Source: NCDC NOAA)

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 such as the City and Prattville 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. To date, there is one Repetitive Loss Property located at the corner of Highway 31 and County Road 4 in Autauga County. Impacts for both flood types includes property and crop damage, contamination or failure of water and sewer systems, increase

in waterborne disease, and possible dam or levee failure. All jurisdictions are vulnerable to flood events.

On September 19, 2009, a slow moving upper level disturbance helped spark several days of thunderstorms across Central Alabama. The storms were slow moving, and produced very heavy rainfall in some locations, which led to flash flooding. More than 40 cars of a train derailed near the Mortar Creek crossing, due to a portion of the tracks being washed out from heavy rain. A portion of CR-64 nearby was also washed out. Property damages of \$1,665,000 resulted.

Autauga County experienced 12 flood/flash flood events in a 10 year period resulting in a 100% (1.20) probability that a flood/flash flood event will occur on an annual basis. The total amount of damages for the 12 flood/flash flood events was \$1,665,000 with 8 flash flood events causing damage resulting in an estimated \$208,125 of expected annual damages from future events

Drought/Extreme Heat (Source: NCDC NOAA)

All jurisdictions are vulnerable to occurrences of drought and extreme heat. 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 severity 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. The effects are far reaching and impact people, livestock, crops, and hydrologic systems. Droughts create conditions of increased vulnerability to wild fires that can destroy lives and property, and also lead to water supply shortages as reservoirs and ground water levels drop. Heat exhaustion and stroke are common and can disproportionately impact the elderly and low-income residents who cannot afford air conditioning.

The categories of drought are defined as follows (*Source <u>http://droughtmonitor.unl.edu</u>*) *Accessed 11/16/14*: **Abnormally Dry (D0)** - Going into drought: short-term dryness slowing planting, growth of crops or pastures; fire risk above average. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered. **Moderate Drought (D1)** - Some damage to crops, pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested. **Severe Drought (D2)** - Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed. **Extreme Drought (D3)** - Major crop/pasture losses; extreme fire danger; widespread water shortages or restrictions. **Exceptional Drought (D4)** - Exceptional and widespread crop/pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells, creating water emergencies.

In 2006, Autauga County experienced one month of D2 Severe Drought events and two months of D3 Extreme Drought events. Impacts of such events include crop and/or pasture losses; water shortages; and imposing water restrictions. In 2007, Autauga County experienced one month of D1 Moderate Drought events, one month of D2 Severe Drought events, three months of D3 Extreme Drought events, and four months of D4 Exceptional Drought events. Impacts of such events include exceptional and widespread crop and/or pasture losses; water shortages, especially in reservoirs, streams, and wells; water restrictions; and water emergencies. In 2008, Autauga County experienced D0 Abnormally Dry to D4 Exceptional Drought. One month of D0 Abnormally Dry, three months of D2 Severe Drought, two months of D3 Extreme Drought and one month of D4 Exceptional Drought. Impacts of such events include risks from short-term dryness slowing planting, growth of crops or pastures; fire risk above average to Exceptional and widespread crop/pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells, creating water emergencies.

In 2010, Autauga County experienced D2 Severe Drought events for two months. Impacts of such events include crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed.

In 2011, Autauga County experienced a D1 Moderate Drought event for two weeks, Impacts of this type of event would include, some damage to crops, pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested. Autauga County experienced two months of D2 Severe Drought events. Impacts of a D2 Drought event would include crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed. Autauga County experienced four months of D3 Extreme Drought events. Impacts of such events include major crop/pasture losses; extreme fire danger; widespread water shortages or restrictions.

In 2012, Autauga County experienced four months of D2 Severe Drought events. Impacts of such events include crop and/or pasture losses; water shortages; and imposing water restrictions.

In 2013, Autauga County experienced two months of D2 Severe Drought events. Impacts of such events include crop and/or pasture losses; water shortages; and imposing water restrictions.

All Autauga County drought events resulted in agricultural, hydrologic, and sociological impacts to be widely felt. No injuries, deaths, property or crop damages were reported to the NCDC NOAA as results of these drought events.

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). Heat stress can be indexed by combining the effects of temperature and humidity. 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. During 2003-2013, no Autauga County extreme heat events were reported to the NCDC NOAA.

Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold (Source: NCDC NOAA)

During 2003-2013, Autauga County has been affected by two frost/freeze events; two heavy snow events; one ice storm event; three winter weather events, and one extreme cold event that impacted the county in a variety of ways. Ice and small amounts of snow can cripple the county, leaving roads impassable, effectively crippling residents from traveling to school, work, or the grocery store, creating a panic of activity and traffic congestion in advance of a predicted storm. 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 failures and property damages. 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 even death. The most significant impacts from an actual event are power outages and consequential loss of heat, numerous transportation related accidents, and stranded motorists. Much like drought, extreme cold has more impact on disadvantaged populations, especially the homeless. Since these storms have no defined track, all residents of Autauga County are vulnerable to severe winter storm events.

Hurricane/Tropical Storm/Tropical Depression/Strong Wind/High Wind (Source: NCDC NOAA)

Hurricanes and tropical storms such as Ivan and Katrina have affected Autauga 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. Mobile homes in the county represent 30% of the housing stock. 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 Ivan (High Winds)

Hurricane Ivan impacted Southern Alabama making landfall near Gulf Shores at approximately 10 a.m. on September 16 as a Category 3 Hurricane. Storm surge values of 10-14 feet along the Alabama and Florida coastlines were the highest observed in over 100 years. As the storm moved inland, high winds and heavy rains wreaked havoc across the state. The effects of what was once Hurricane Ivan resulted in thousands of trees and power lines being snapped off or blown down. Hundreds of homes suffered varying degrees of roof and structural damage. At least 800 households were displaced for at least one night due to hurricane damage. At least 8000 customers were without power at the height of the storm. Several residences were without power for up to 5 days. At least 75 farming operations requested aide due to wind damage. Many roadways were impassable due to fallen trees. Maximum wind gusts were estimated around 80 miles an hour. Doppler radar estimated 5 to 7 inches of rain during the event which caused a few roads to flood and become temporarily impassable. Property damages of \$2,600,000 and crop damages of \$100,000 were reported

Hurricane Katrina (Tropical Storm)

On August 29, 2005, Hurricane Katrina made landfall on August 29, 2005 near Buras, Louisiana as a Category 3 storm and became known not only as the costliest but also as one of the most devastating hurricanes in the history of the United States. It is the deadliest hurricane to strike U.S. coastlines since 1928 and produced damages in excess of \$75 billion. Katrina had maximum sustained winds estimated to be 120 MPH at landfall. As Katrina moved across land, the storm weakened, though it maintained hurricane status past Laurel, Mississippi. Southwestern Alabama experienced hurricane conditions as Katrina moved through neighboring Mississippi. The effects of Katrina were widespread across Alabama, particularly areas in the western portions of the state. On August 29, 2005, the effects of what was once Hurricane Katrina resulted in several trees and power lines being blown down across Autauga County. Power outages were widespread. Several vehicles and homes were damaged by the fallen trees. Property damages of \$80,000 were reported due to Hurricane Katrina.

Sinkholes and Expansive Soils (Sources: NCDC NOAA; Geological Survey; Local Input)

There were no active sinkholes reported from NOAA for the 10 year period of January 1, 2003 – December 31, 2013. There are limited adverse effects and shrink-swell potential of soils

in Autauga County. No sinkholes or expansive soils were reported by the NOAA NCDC Storm Events Database or the U. S. Geological Survey.

Landslides (Source: Local Input)

Like sinkholes, landslides are possible in Autauga County, but seldom occur. Road construction itself is often the source of potential landslide events as existing slopes and hillsides are cut to accommodate the road construction; the associated roadway receives the most impact of these types of landslides. The potential impacts to Autauga County as a result of landslides include property damages, impassable roads, sediment erosion, and possible infrastructure damages. Naturally occurring landslides have not been reported in the county. No landslides were reported by the NOAA NCDC Storm Events Database or the U. S. Geological Survey.

Earthquakes

Earthquakes can trigger other natural disasters such as landslides and sinkholes. No earthquakes were reported by the Alabama Geological Survey; USGS Database; www.homefacts.com/earthquakes/Alabama.html, or NOAA NCDC Storm Events Database.

Wildfires (Source: Alabama Forestry Commission)

Autauga County contains a significant amount of forestland, over 87% of its land area. Both rural and urban areas in all jurisdictions are impacted by wildfires. The timber industry is very prominent and timber crops could be significantly impacted in this county. During 2010-2013, Autauga County experienced 114 wildfire events resulting in 881.75 total acres being burned. Based on this data, the average number of wildfires per year is 38; average acres burned per year is 293.92; and the average fire size in acres per year is 7.74. Alabama's forest products industries are vital to the state's economy. Autauga County has no sawmills, both rural and urban areas in all jurisdictions are impacted by wildfires and result in loss of wilderness, crops, livestock and other property. Loss of human life, both residents and firefighters, is also possible.

Dam and Levee Failures (Sources: HAZUS MH 2.1; Local Input)

There are fifteen earth dams located in Autauga County: Two dams are located in a municipality, two classified as having high hazard potential. Only the unincorporated county identified this hazard. The impact of a dam failure in the county is low given their location in remote areas with little residential occupancy. Potential impacts would be limited or unregulated water flow, associated damages to property and crops, and a potential increase in water borne disease. The risks associated with dam/levee failures are also the same as those risks associated with flooding. There have been no significant dam or levee failures reported in Autauga County during 2003 - 2013.

Map 4-2 shows the county's new census tracts. In terms of vulnerability, the larger the population of an area the more people and structures that could possibly be damaged or destroyed. Tract 205 is the most populated tract and contains the City of Prattville. Tract 208.2 is the second most populated tract and contains a population of 10,435. Tract 209 is the third most populated tract and contains 5,675 people. Tract 201 is the least populated tract and contains 1,912 people.

 Table 4-2: Autauga County Population Characteristics

Geographic Area	Population	Race White	Race-Black	Race-Other*	Igyears and under	48e 20.64	Age 65 and Over
Autauga County	54,571	42,855	9,643	2,073	13,599	33,875	7,097
Prattville	34,999	26,665	5,659	2,675	9,553	21,766	3,680
Autaugaville	870	272	581	17	203	524	143
Billingsley	144	124	16	4	37	79	28
Tract 201 502.94 persons per sq mi	1,912	1,622	217	73	568	1,123	221
Tract 202 1,679.52 persons per sq mi	2,170	888	1,217	65	663	1,293	214
Tract 203 1,630.37 persons per sq mi	3,373	2,576	647	150	981	1,953	439
Tract 204 1,775.24 persons per sq mi	4,386	4,086	193	107	1,143	2,339	904
Tract 205 2,436.09 persons per sq mi	10,766	8,666	1,437	663	3,443	6,197	1,126
Tract 206 1,175.69 persons per sq mi	3,668	2,751	740	177	1,125	2,132	411
Tract 207 322.89 persons per sq mi	2,891	2,333	435	123	779	1,752	360
Tract 208.01 60.27persons per sq mi	3,081	2,690	278	113	902	1,838	341
Tract 208.02 141.14 persons per sq mi	10,435	8,744	1,387	304	3,196	6,179	1,060
Tract 209 50.12 persons per sq mi	5,675	4,835	679	161	1,668	3,377	630
Tract 210 19.30 persons per sq mi	2,894	2,223	603	68	834	1713	347
Tract 211 17.47 persons per sq mi	3,320	1,441	1,810	69	848	1,980	493
(Source: 2010 Census; www	v.usa.com)		•	•		

Socially Vulnerable Populations

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.

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 4-2** shows the median household income, per capita income, and poverty level data for the jurisdictions and census tracts in Autauga County.

The median household income for the State of Alabama is \$43,160. The median household income for the United States is \$53,046. Tract number 201 is the only tract that exceeds the state average; all remaining tracts are less than the state and national averages. Prattville has a median household income that exceeds the state and national averages \$53,773. All other municipalities do not have a median household income that equals or exceeds either the state or national average. (*Source: 2010 Census; 2008-2012 Census Data at USA.com*)

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. Autauga County per capita income average is \$25, 253 which is higher than the State of Alabama average and lower than the national average. *(Source: 2010 Census; 2008-2012 Census Data at USA.com)*

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%. Autauga County is at 11.55% of the population in poverty.

According to the 2010 Census, the total population of Autauga County is 54,571, which is 24.96% more than it was in 2000. The population growth rate is higher than the state average rate of 7.48% and the national average rate of 9.71%. The Autauga County population density is 90.29 people per square mile, which is just below the state 91.18 and higher than the national 81.32 average densities of people per square mile. The most prevalent race in Autauga County is white, which represents 78.50% of the total population. The average Autauga County education level is lower than the state and national averages.

As of 2008-2012 Census Data, the per capita income of Autauga County is \$25,253 which is higher than the state average of \$23,587 and lower than the national average of \$28,051. Autauga County median household income is \$53,773, which has increased by 27.99% since 2000. The median household income growth rate is higher than the state average rate of 26.44% and national average rate of 26.32%.

As of 2008-2012 Census Data, the median price of a house in Autauga County is \$137,900, which is higher than the state average of \$122,300 and national average of \$181,400. The Autauga County median house value has increased by 45.46% since 2000. The growth rate for the price of a house in Autauga County is higher than the state average rate of 43.71% and lower than the national average rate of 51.67%. The median year that a house in Autauga County was built is 1990, which is newer than the median year for a house built in the state which is 1980 and for a house built in the USA which is 1975.

Geographic Area	Median Household Income	Per Capita Income	Population Below Poverty Level	Population Percent Below Poverty Level
Autauga County	\$53,773	\$25,253	6,267	11.55%
City of Prattville	\$58,773	\$26,786	3,122	9.43%
Town of Autaugaville	\$30,833	\$16,775	184	19.91%
Town of Billingsley	\$38,333	\$18,535	20	13.89%
Census Tracts				
201	\$56,500	\$2,458	163	9.24%
202	\$41,250	\$21,157	218	10.51%
203	\$43,088	\$21,772	367	11.82%
204	\$54,503	\$26,257	136	3.14%
205	\$65,027	\$28,524	807	7.74%
206	\$52,639	\$26,195	640	18.34%
207	\$39,427	\$25,973	523	18.10%
208.01	\$78,587	\$31,333	360	11.28%
208.02	\$60,019	\$25,114	1083	10.09%
209	\$45,208	\$23,030	722	12.77%
210	\$52,563	\$23,852	547	18.17%
211	\$40,557	\$18,588	701	19.61%

Table 4-3: Autauga County Income Data

Vulnerable Structures

Housing is an important consideration of mitigation planning. The concentration and the type of housing are two primary factors. In Autauga County there are a total of 22,135 housing units. **Table 4-3** shows the housing characteristics of the county by jurisdiction.

Prattville has the greatest number of housing units, followed by Autaugaville and Billingsley. Prattville has the highest number of mobile home units within a municipality; while, Autaugaville 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 4-4: Autauga County Housing Characteristics									
Geographic Area	Total Housing Units	Mobile Home Units	Mobile Home %						
Autauga County	22,135	4,615	20.85%						
Prattville	13,541	1,094	8.08%						
Autaugaville	397	155	39.04%						
Billingsley	75	3	4.0%						
(Source: 2010 Census;	Easidemographics.com;	Percent calculations by LI	HA)						

The Census Tracts for Autauga County were changed and renumbered for the 2010 Census. Tract 108 was split into Tracts 108.01 and 108.02. **Table 4-4** and **Table 4-5** reflect information taken from HAZUS-MH 2.1 2012 which does not correspond with the new Census Tracts; therefore, references have been made to reflect both 2000 Census Tracts and 2010 Census Tracts accordingly. **Table 4-4** shows the building stock in Autauga County by general occupancy. The data provides the number of buildings by use and is shown by Census Tract. Complementing this information is **Table 4-5** that provides the value totals for these building types and **Table 4-6** that provides the content value for these building types, each table is shown by Census Tract.

2000 Tract	2010 Tract	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Building Count
201	201	752	16	9	5	5	4	2	793
202	202	822	24	14	4	10	3	3	880
203	203	1326	19	10	4	3	0	1	1363
204	204	1823	37	17	4	6	0	1	1888
205	205	4308	37	17	7	12	1	2	4384
206	206	1452	27	16	2	7	1	1	1506
207	207	1301	32	22	5	11	1	5	1377
208	208.01	1169	15	28	12	11	1	1	1237
	208.02	4003	41	17	4	8	2	1	4076
209	209	2320	26	27	3	11	2	2	2391
210	210	1261	25	15	3	12	4	2	1322
211	211	1598	34	17	15	14	4	2	1684
Total		22,135	333	209	68	110	23	23	22,901

			Table 4-6:	Autauga C	County Build	ding Expo	sure					
	(Numbers shown in thousands of dollars)											
2000	2010								Total			
Tract	Tract	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Exposure			
201	201	\$101,330	\$8,739	\$1,293	\$734	\$2,304	\$2,422	\$1,412	\$118,234			
202	202	\$116,823	\$25,065	\$4,388	\$240	\$9,106	\$1,955	\$3,119	\$160,696			
203	203	\$214,782	\$28,457	\$2,014	\$1,954	\$4,017	\$0	\$81	\$251,305			
204	204	\$302,496	\$35,589	\$2,984	\$536	\$4,824	\$0	\$125	\$346,554			
205	205	\$445,618	\$92,333	\$6,394	\$586	\$9,169	\$158	\$1,537	\$555,795			
206	206	\$218,444	\$27,321	\$52,832	\$101	\$6,923	\$429	\$89	\$306,139			
207	207	\$152,040	\$29,695	\$10,055	\$693	\$6,026	\$216	\$5,997	\$204,722			
208	208.01	\$245,143	\$18,677	\$6,223	\$1,915	\$4,512	\$57	\$1,108	277,635			
	208.02	\$188,586	\$7,161	\$2,951	\$281	\$4,121	\$1,554	\$2,359	\$207,013			
209	209	\$181,452	\$9,360	\$5,267	\$276	\$6,210	\$268	\$1,403	\$202,973			
210	210	\$120,245	\$8,760	\$1,987	\$177	\$6,774	\$1,668	\$1,412	\$141,023			
211	211	\$124,995	\$10,730	\$16,593	\$1,401	\$6,887	\$523	\$3,745	\$164,874			
Total		\$2,411,954	\$301,887	\$112,981	\$8,894	\$70,873	\$9,250	\$22,387	\$2,936,963			
(Source: 1	HAZUS-M	H 2.1 Accessed	l 2014)									

		Table	e 4-7: Autaug (Numb	•	Building C		xposure		
2000 Tract	2010 Tract	Residential	Commercial	Industrial	Agriculture	Religious	Government	Education	Total Exposure
201	201	\$60,308	\$9,424	\$1,382	\$734	\$2,304	\$2,810	\$1,412	\$78,374
202	202	\$83,853	\$26,297	\$6,060	\$240	\$9,106	\$2,349	\$3,119	\$131,024
203	203	\$132,413	\$32,505	\$2,354	\$1,954	\$4,017	\$0	\$81	\$173,324
204	204	\$175,513	\$36,989	\$3,774	\$536	\$4,824	\$0	\$125	\$221,761
205	205	\$285,067	\$97,314	\$8,538	\$586	\$9,169	\$158	\$1,537	\$402,369
206	206	\$174,119	\$18,470	\$78,136	\$101	\$6,923	\$429	\$89	\$278,267
207	207	\$105,894	\$30,337	\$13,653	\$693	\$6,026	\$216	\$6,109	\$162,928
208	208.01	\$140,244	\$18,856	\$7,420	\$1,915	\$4,512	\$57	\$1,108	\$174,112
	208.02	\$104,906	\$7,558	\$3,189	\$281	\$4,121	\$2,281	\$2,359	\$124,695
209	209	\$103,546	\$9,443	\$6,501	\$276	\$6,210	\$268	\$1,403	\$127,647
210	210	\$71,501	\$8,760	\$2,241	\$177	\$6,774	\$2,318	\$1,412	\$93,183
211	211	\$90,547	\$11,042	\$24,165	\$1,401	\$6,887	\$548	\$3,745	\$138,335
То	tal	\$1,527,911	\$306,995	\$157,413	\$8,894	\$70,873	\$11,434	\$22,499	\$2,106,019
(Source: H	IAZUS-MH	2.1 Accessed 2	2014)						

Critical Facility Inventory

Critical facilities are crucial to the daily operation of Autauga County. Critical facilities help maintain a certain quality of life. Loss of operation could result in severe impacts on the community. Each of the critical facilities listed in **Table 4-7** is vulnerable to each of the hazards identified in the risk assessment. Critical facilities include but are not limited to the following:

- Governmental services
- Police and Fire Departments
- Public Works
- Education
- Industrial
- Medical

Each jurisdiction listed facilities based on the location of the facility without regard to ownership or function. The county's list will show only what is located in the unincorporated areas. Each jurisdiction also provided addresses and approximate values for the facilities listed, using replacement values from their insurance policies when available. *HAZUS-MH 2.1* was also utilized for building and content values.

Critical facilities were reviewed to consider vulnerability to special flood hazard areas. The determination utilized the review of existing FIRMs or FHBMs. Critical facilities in Autauga County identified as being in a special flood hazard area and particularly vulnerable to floods include:

JURISDICTION	ESTIMATED COST
AUTAUGA COUNTY	
134 N. Court St Courthouse	\$ 22,332,252.84
Courthouse Security	\$ 392,251.40
Courthouse Renovation	\$ 980,098.37
Lobby-Courthouse Security	\$ 621,833.06
Parking Lot Improvements - Courthouse	\$ 33,263.12
Honeywell Energy Management System - Courthouse	\$ 386,007.30
136 N. Court St Jail	\$ 3,025,691.70
Autauga Jail Annex Renovation	\$ 71,144.75
203 N. Court St Human Resources/Pensions& Security	\$ 923,216.08
153 W. 4th St Board of Education Building	\$ 325,033.91
511m W. 4th St Engineer Building	\$ 530,117.05
Co. Maintenance Shop Building	\$ 488,998.47
101 Walker St Newton Park Voting Site	\$ 584,669.41
176 W. 5th St Probate Building	\$ 1,144,174.68
218 N. Court St Revenue Building	\$ 649,724.36
164 W. 4th St Sheriff Dept. Renovation	\$ 318,917.91
Sheriff Dept. Renovation	\$ 1,989,811.71
Total	\$34,797,206.12
CITY OF PRATTVILLE	
Autauga Creek Wastewater Treatment Plant - Reuben	\$ 15,642,630.45
Road	ψ 15,0+2,050.+5
Pine Creek Wastewater Treatment Plan - 100 Pine Creek Drive	\$ 2,717,379.75
Prattville City Hall -101 West Main Street	\$ 3,082,905.90
Prattville City Hall Annex - 102 West Main Street	\$ 1,103,953.15
Total	\$ 22,546,869.25

Table 4-8: Critical Facilities within Floodways

Future Critical Facilities:

Construction of other critical facilities and infrastructure will follow future development.

TABLE 4-9: Autauga County Critical Facilities								
Facility	Location	Area	Use	Value				
Fire Departments	400 County Dood 40 F			.				
Pine Level Volunteer Fire Dept.	109 County. Road 40 E	Prattville	Fire Fighting	\$436,000				
Independence Volunteer Fire Dept.	1702 County Road 40 W	Prattville	Fire Fighting	\$436,000				
White City Volunteer Fire Dept.	1151 County Road 49	Marbury	Fire Fighting	\$218,000				
Billingsley Volunteer Fire Dept.	2161 County Road 37	Billingsley	Fire Fighting	\$381,500				
Autaugaville Volunteer Fire Dept.	2710 Highway 14 W	Autaugaville	Fire Fighting	\$327,000				
Booth Volunteer Fire Dept.	1701 County Road 10	Booth	Fire Fighting	\$218,000				
Prattville Fire Department	102 W Main Street	Prattville	Fire Fighting	\$1,447,815				
Prattville Fire Department	163 West Fourth Street	Prattville	Fire Fighting	\$1,182,586				
Prattville Fire Department	1904 Briarwood Drive	Prattville	Fire Fighting	\$3,262,447				
Autauga County Rescue Squad	145 West 3 rd Street	Prattville	Rescue	\$397,850				
Public Works		1		····				
Autauga Creek Wastewater Trot	Reuben Road	Prattville	Waste Water	\$17,050,466				
Pine Creek Wastewater Trot	100 Pine Creek Drive		Waste Water	\$2,961,943				
	TOO FINE CIEEK DIIVE	Prattville						
Sanitary Sewer Treatment Fac.		Autaugaville	Sewer Trot	\$978,360				
City of Prattville Sanitation Dept.	924 Industrial Pkwy	Prattville	Sanitation Equip	\$476,434				
Prattville Street Department	694 Doster Road	Prattville	Public Works	\$463,682				
Education								
Autauga Academy	497 Golson Road	Prattville	Education	\$2,187,750				
Camellia Baptist WEM	201 Woodvale Road	Prattville	Education	\$187,150				
First Baptist Kindergarten	138 S. Washington St	Prattville	Education	\$224,580				
Prattville Junior High School	1089 N Chestnut	Prattville	Education	\$20,281,140				
Prattville Primary School	216 Wetumpka St.	Prattville	Education	\$9,313,380				
Daniel Pratt Elementary School	420 Harvest Loop	Prattville	Education	\$17,300,640				
Louise M Smith Development Ctr	154 Beth Manor Drive	Prattville	Education	\$6,733,560				
Prattville Elementary School	134 Patrick St	Prattville	Education	\$7,967,980				
Prattville Intermediate School	1020 Honeysuckle Drive	Prattville	Education	\$10,317,430				
Autauga County AL Alternative Sch	819 Cardinal Lane	Prattville	Education	\$4,349,300				
Prattville Kindergarten School	338 1 st St.	Prattville	Education	\$6,622,580				
Prattville High School	1315 Upper Kingston Road	Prattville	Education	\$43,160,820				
Autauga Co. Technology Ctr	1301 Upper Kingston Road	Prattville	Education	\$6,733,560				
Pine Level Elementary	2040 Highway 31 N	Deatsville	Education	\$15,069,650				
Billingsley High School	2446 County Road 77	Billingsley	Education	\$11,392,590				
Autaugaville School Medical	2708 Dutch Bend St.	Autaugaville	Education	\$5,620,030				
Prattville Baptist Hospital	124 South Memorial Drive		Madical Cara	\$17,099,420				
Other	124 South Memorial Drive	Prattville	Medical Care	\$17,099,420				
	too Mu t ^h to t	Drett ville		\$4.070.400				
Autauga County Sheriff's Office	162 W 4 th street	Prattville	Law Enforcement	\$1,373,400				
EMA Building	826 Gillespie St	Prattville	Emergency Management	\$96,666				
Autauga County Jail Annex Renovation			Law Enforcement	\$77,546				
Autaugaville Town Hall Police Dept, Fire Dept.		Autaugaville	Admin, Law Enforcement,	\$3,615,582				
Billingsley Town Hall		Billingsley	Admin	\$257,474				
Prattville police Tactical Center	1255 Reuben Road	Prattville	Law Enforcement	\$720,727				
Source: Local Jurisdictions			TOTAL	\$220,941,038				

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Development Trends

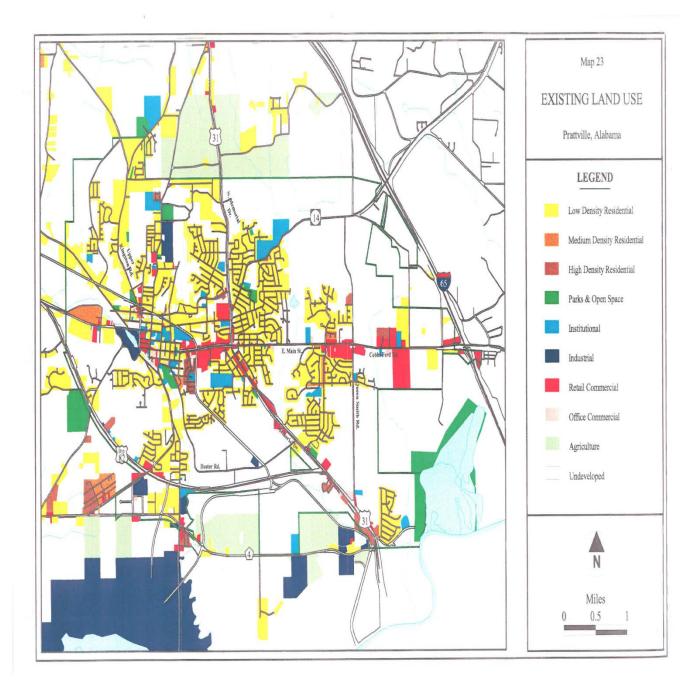
Autauga County is mostly rural. Autauga County's population has grown over the past forty years and should see continued growth as development from continues to expand. Many potential residents from these counties may choose to live in more rural areas where crime rates and housing prices are lower. **Table 4-8** provides the population projections for Autauga County. **Map 4-1** shows current land use cover in the City of Prattville.

Table 4-10: Population Projections											
County	2000	2010	2015	2020	2025	2030	2035	2040	Number Difference	Percent Difference	
Autauga	43,671	54,571	59,577	64,341	68,800	72,999	77,071	80,914	26,343	48.3%	
Note: These projections are driven by population change between Census 2000 and Census 2010. Recent data on births and deaths from the Alabama Department of Public Health are used to derive birth and death rates for the state and each county.											
		eau and Cen igation Plan	5		onomic Resea	arch, The U	niversity of A	Alabama, Fa	ll 2012 – As noted	l in the Alabama	

Currently there are no known or anticipated annexations by municipalities. The County's expansion is primarily along Interstate 65.

The development trends in the county do not indicate any marked increase in vulnerability to identified hazards. At present, land use patterns are not expected to change, and development is expected to remain consistent within existing patterns.

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MAP 4-1: EXISTING LAND USE FOR PRATTVILLE, ALABAMA

(Source: Local Jurisdiction)

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Methods of Warning

Autauga County Emergency Management Agency and the county's jurisdictions have constructed a warning system that provides multiple ways to receive weather watches, warnings, and other emergency messages.

NOAA Weather Radio

NOAA Weather Radio is a nationwide network of radio stations broadcasting weather and other emergency information 24 hours a day. All National Weather Service issued watches, warnings, forecasts and other emergency messages are broadcast on one of seven frequencies.

National Weather Service personnel at offices in Birmingham record weather information that plays in a cyclical pattern repeating every three to six minutes. Broadcasts generally include local area five-day forecasts, current weather conditions, radar reports, weather summaries, climatic data, river and lake stage readings, and other weather information. The broadcasts are continuously updated to provide the listener with the latest information.

NOAA Weather Radio is useful any time for the latest weather information but becomes even more important during severe or hazardous weather. During episodes of severe weather, the normal broadcast cycle is interrupted and focus shifted to the local severe weather threat. Watches, warnings, and statements are given the highest priority and are updated frequently as conditions change.

In an emergency, each transmitter is capable of transmitting a warning alarm tone signal and the new Specific Area Message Encoding (SAME) signal followed by information on the emergency situation. These signals will activate specially designed receivers, either bringing up the volume or producing a visual and/or audible alarm. Not all weather band receivers have this capability, but all radios that receive NOAA Weather Radio transmissions can receive the emergency broadcasts. The warning alarm device is tested each Wednesday between 11 am and noon, weather permitting.

Outdoor Warning Sirens

Autauga County EMA has 30 outdoor warning sirens in place. **Table 4-9** lists the outdoor warning sirens in Autauga County. The existing sirens have an effective radiated coverage area of one mile around the siren.

Autauga County utilizes the polygon system for activating the outdoor warning sirens. The polygon system is linked directly to the National Weather Service (NWS), allowing the alarms to sound automatically when there is a warning issued.

The entire countywide Outdoor Siren Warning System is periodically tested on the 1st Wednesday of each month. The general public is advised not to depend on hearing the sirens inside a building. The sirens are designed to be heard outdoors only and are installed near recreational areas and shopping malls where there are large outdoor populations. As a backup to the Outdoor Siren Warning System, police and fire units throughout the county can be instructed to sound their sirens. Additionally, the county utilizes the Polygon Warning System.

Polygon – Siren Activation System

Autauga County utilizes the polygon based siren activation system that is linked directly to the NWS. The polygon system is totally automated, as it receives information from the NWS and automatically sounds the sirens located in the areas inside the polygon to be impacted. For example, the entire county may be issued a tornado warning; however, sirens will sound only in the areas of the county to be impacted according to the polygon. The program is designed to keep hospitals and nursing homes from having to initiate protocols to move patients to safe areas when a storm may be miles away and it also keep residents from becoming complacent when they frequently hear sirens.

Broadcast Media

One of the key elements of the Countywide Warning System is broadcast media. Most of the radio, television, and cable companies that serve Autauga County residents are dedicated to informing their audiences of impending emergencies. These broadcasters have partnered with the Autauga County Emergency Management Agency to bring their listeners and viewers fast, accurate, and important severe weather and civil emergency information via EAS and traditional newsgathering methods. Most of the television stations serving the Autauga County market (ABC WNCF 32, CBS WAKA 8, NBC WSFA 12, and Fox WCOV 20) feature live Doppler radar and certificated meteorologists. Many of the radio stations maintain continuous severe weather coverage.

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	IABLE 4-11 AUTAUGA COUNTY WARNING SIRENS					
#	Siren #	Siren Name	Jurisdiction	Address	Longitude	Latitude
1	101	Janice St	Prattville	Janice St. & Sheila Blvd.(Waste Water Lift Station #1)	32.44403 N	86.42718 W
2	102	Hwy 31S/McQueen Smith	Prattville	Across from Candlestick Mobile Home Park	35.25.91 N	86.24.94 W
3	103	Hunt's Alley	Prattville	Hunts Alley behind Fire Station #2	32.46223 N	86.47395 W
4	104	Partridge Lane	Prattville	Alternative School south end of Cardinal Ln	32.45543 N	86.45423 W
5	105	HWY 14 & HWY 82	Prattville	Water Pumping Station next to Beeline	32.43813 N	86.47341 W
6	106	Hughes St	Prattville	202 Hughes St/County School Bus Barn	32.48571 N	86.47199 W
7	107	Fire Station #3	Prattville	McQueen Smith Rd behind Walmart	32.46442 N	86.41663 W
8	108	Newton Park	Prattville	Till and Walker St	32.46914 N	86.44401 W
9	109	Prattville Airport	Prattville	Hwy 14W & Co.Rd.29	32.4306 N	86.5081 W
10	110	Autauga Academy	Prattville	497 Golsan Rd Prattville	32.4711 11 N	86.5430 55 W
11	111	Prattville Country Club	Prattville	723 Hwy 82 W Prattville	32.4502 77N	86.4897 22W
12	112	EMBC	Prattville	1320 Old Ridge Road N Prattville	32.5025 N	86.4230 W
13	113	Water Tower @ Burton Manor	Prattville	469A Golsan Rd Prattville	32.4635 N	86.5422 W
14	501	Home Depot/Legends Parkway	Prattville	Behind Home Depot Shopping Center/Elmore		
15	502	PCA/Old Farm Lane	Prattville	Elmore Co		
16	201	Autaugaville VFD	Autauga County	Hwy 14 W Autaugaville VFD	32.4320 N	86.65678 W
17	202	Co Rd 133 @ Water Tower	Autauga County	Co Rd 133 Water Tower	32.25.73 N	86.40.74W
18	301	Marbury Middle School	Autauga County	SR 143 & Rainer Street	32.70132 N	86.47733 W
19	302	Marbury VFD #2	Autauga County	2774 Hwy 143 Deatsville Wadsworth Grocery	32.6728 N	86.4480 W
20	401	Billingsley VFD	Autauga County	Junction Co. Rd 37 & Co. Rd. 77	32.66469 N	86.70326 W
21	402	Pine Level VFD	Autauga County	County Road 40 East	32.58363 N	86.46271 W
22	403	Independence VFD	Autauga County	1702 Co Rd 40W	32.523888 N	86.378333 W
23	404	Old Kingston VFD	Autauga County	1047 Co. Rd.40 W	32.573611 N	86.605555 W
24	405	Autauga County Water Authority	Autauga County	2010Co. Rd. 57 Prattville	32.5758 N	86.5513 W

TABLE 4-11 AUTAUGA COUNTY WARNING SIRENS

25	406	Booth VFD	Autauga County	1701 Booth Rd Prattville	32.5034 N	86.5713 W
26	407	White City VFD	Autauga County	1151 Co Rd.49 Marbury	32.6476 N	86.5993 W
27	408	Penecost VFD	Autauga County	3029 Co. Rd. 57 Marbury	32.6922 N	86.5528 W
28	409	Jones VFD	Autauga County	850 Co. Rd. 83 Jones	32.5829 N	86.8934 W
29	410	Vida	Autauga County	1915 Co. Rd. 19N Prattville	32.6124 N	86.6749 W
30	411	Co Rd 59/HWY 31	Autauga County	County Engineer's District 4 Office	32.6218 N	86.485433 W

Vulnerability Summary

Table 4-12 provides a summary of Autauga County's vulnerability to specified hazards by jurisdiction. Each jurisdiction was tasked with considering how vulnerable they are to each hazard by considering the percentage of potential damage and the frequency of occurrences. Using information from the Risk Assessment in Section Three as well as the data in the earlier parts of this section as a basis for evaluation, the committee members assigned either N/A: Not Applicable, L: Low Risk, M: Medium Risk, and H: High Risk as defined in the Table Key.

Estimated Loss Projections

Table 4-10 shows the figures used for valuation of deaths and injuries are approximations based on FEMA guidance used in benefit-cost analysis of hazard mitigation measures. Major and minor injuries are combined in the NOAA data, so it was necessary to use a blended number in the valuation.

Table 4-12 shows the estimated loss projections for each hazard. The average number of occurrences per year is shown along with total number of deaths and injuries. The average amount of loss per event was determined by combining crop and property loss damages for each event type and then dividing by the corresponding total number of events reported during the ten-year study period. This amount is shown under the column heading Average Crop and Property Loss. There are instances where the Average Crop and Property Loss (per event) and Projected Loss (per Event) for an identified hazard could not be determined due to the absence of historical event data. This is a data limitation beyond the control of an affected jurisdiction.

Table 4-12: 2014 Values used for Monetary Conversion of Tornado Injuries and Deaths		
Damage Category	Value	
Injury (blended major and minor)	\$23,175	
Death	\$3,660,003	
(Source: FEMA)		

The Projected Loss is shown per event by hazard type. Due to the fluctuations in the value of a dollar over the ten-year study period, the year 2008 was chosen as a midpoint year. The Projected Loss was then calculated by adjusting the 2008 value of \$1 up to \$1.09, a 9 % increase to reflect the value of the dollar in 2014. Average loss amounts were increased by 9% to achieve a 2014 value for an estimated projected loss per event occurrence. (*Source: U. S. Inflation Calculator based on the U. S. Government Consumer Price Index Data*)

Table 4-13: Autauga County Vulnerability Summary						
Natural Hazards	City of Prattville	Town of Autaugaville	Town of Billingsley	Unincorporated County		
Thunderstorm	Н	Н	Н	Н		
Lightning	М	М	М	М		
Hail	М	М	М	М		
Tornado	Н	Н	Н	Н		
Flood/Flash Flood	М	М	М	М		
Drought/Extreme Heat	Н	Н	Н	Н		
Winter Storm/Frost Freeze/Heavy Snow/ Ice Storm/Winter Weather/ Extreme Cold	М	М	М	М		
Hurricane/Tropical Storm/ Tropical Depression/High Wind/ Strong Wind	М	М	М	М		
Sinkhole/Expansive Soil	L	L	L	L		
Landslide	L	L	L	L		
Earthquake	L	L	L	L		
Wildfire	Н	Н	Н	Н		
Dam/Levee Failure	L	L	L	L		
 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) 						

(Source: Participating Jurisdictions)

Table 4-14: Autauga CountyEstimated Loss Projections from Specified Hazards						
Natural Hazards	Average Occurrences (per year)	Total	Total Injuries	Average Death and Injury Loss (per event)	Average Crop and Property Loss (per event)	Projected Loss (per event)
Thunderstorm	8.3	0	3	\$837.65	\$19,578.31	\$21,340.36
Lightning	<1	0	0	Unknown	\$15,833.33	Unknown
Hail	3.9	0	0	Unknown	\$68,974.36	\$75,182.05
Tornado	2.0	3	55	\$612,731.70	\$683,600.00	\$745,124.00
Flood/Flash Flood	1.2	0	0	Unknown	\$138,750.00	\$151,237.50
Drought/Extreme Heat	3.2	0	0	Unknown	Unknown	Unknown
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/ Extreme	<1	0	0	Unknown	Unknown	Unknown
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	1.4	0	0	Unknown	\$215,642.86	\$235,050.72
Sinkhole/Expansive Soil	0	0	0	Unknown	Unknown	Unknown
Landslide	0	0	0	Unknown	Unknown	Unknown
Earthquake	0	0	0	Unknown	Unknown	Unknown
Wildfire (3 year study period)	38	0	0	Unknown	\$558,600.00	\$608,874
Dam/Levee Failure	0	0	0	Unknown	Unknown	Unknown

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 tenyear 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 is a 3-year period. Projected loss expresses an estimated damage amount per future occurrence by converting the average loss figures from a midpoint of 2008 dollars to 2014 dollars (\$1 in 2008 = \$1.09 in 2014...a cumulative rate of inflation of 9%). Zero and Unknown denote there is no data available to determine the average occurrences, average loss or projected loss per event.

Mitigating Potential Losses

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 located in Section Five.

Mitigation Strategy

In the preparation of the mitigation strategy, the Hazard Mitigation Planning Committee reviewed the goals and objectives of the 2009 plan revision. The committee agreed the goals and objectives would remain the same for this plan revision and they are as follows:

- Goal 1: Increase public education and awareness of existing and potential hazards in Autauga County.
- Goal 2: Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
- Goal 3: Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
- Goal 4: Encourage proper information management of data related to natural hazards in Autauga County.
- Goal 5: Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.

Mitigation Actions

Mitigation ideas can be found on the FEMA.gov website. FEMA summarizes mitigation actions into four types: Local Planning and Regulations, Structure and Infrastructure Projects, Natural Systems Protection, Education and Awareness.

Jurisdictions sought and selected their own mitigation actions to support the goals and objectives of the mitigation strategy. The identification of mitigation actions has been shaped by the events that occurred over the past five years, vulnerabilities, and available mitigation actions. Each significant event revealed strengths and weaknesses within the hazard mitigation program; therefore, jurisdictions adjusted their mitigation actions to address these weaknesses accordingly.

Because of these events, the prioritization of actions has been re-evaluated and ranked as follows:

Actions identify the activity, what hazard(s) are addressed, whether the activity applies to a new or existing asset, and an estimated cost. The action also identifies the planning mechanism, possible funding sources, and a time frame for completion of the activity.

Action Priority and Cost Benefit Review

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 4-15** shows Autauga County's mitigation actions for the 2015 plan update.

Projects will be labeled high, medium, and low in priority as one project may be equally as important as another project. All actions will be addressed as soon as possible depending on available funding and resources; however, actions labeled high in priority will be addressed first, medium in priority will be addressed secondly, and low in priority will be addressed last. The most important determination is funding, which greatly affects which projects can be completed. The current statuses of the proposed actions are shown under Benchmark.

T	able 4-15: Autauga County Mitigation Actions
Mitigation Action	Disseminate informational pamphlets for County residents explaining precautions to be taken.
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New
Local Planning Mechanism	Autauga County EMA; Municipalities; ARC
Time frame for Completion	Continuous/Ongoing
Estimated Cost	\$10,000
Funding Sources	Local
Priority	Low
Benchmark	The county has provided informational pamphlets to residents on hazards within the county. They
	plan to continue informing the public with updated information.
Mitigation Action	Develop an informational website where residents learn how to protect themselves and property.
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New
Local Planning Mechanism	Autauga County EMA; CARPDC; HMC
Time frame for Completion	Continuous
Estimated Cost	\$5,000
Funding Sources	Local
Priority	Low
Benchmark	A web site has been developed for residents to learn how to protect themselves from potential
	hazards in the county. The county will continue to update and inform the public.
Mitigation Actions	Cooperate with local media to produce news releases on hazard risk & safety.
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New and Existing
Local Planning Mechanism	Autauga County EMA; HMC
Time frame for Completion	Continuous
Estimated Cost	\$15,000
Funding Sources	Local and Grants
Priority	High
Benchmark	The county has provided various news releases on hazards and safety information and will continue to do so.
	continue to do so.

Mitigation Action	Utilize existing school programs to educate on hazards, hazard safety, and mitigation.			
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.			
Hazard(s) Addressed	Tornados, Floods, Thunderstorms			
Applies to new/existing asset	Existing			
Local Planning Mechanism	Autauga County EMA; ARC; HMC; Autauga County Board of Education			
Time frame for Completion	Continuous			
Estimated Cost				
Funding Sources	\$5,000			
Priority	Medium			
Benchmark	The county has worked with BOE and education officials to educate staff and students on hazards, safety and mitigation. They will continue these efforts in the future.			
Mitigation Action	Disseminate mailings on hazard mitigation for owners in 100 yr floodplain and repetitive loss area			
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.			
Hazard(s) Addressed	Floods			
Applies to new/existing asset	Existing			
Local Planning Mechanism	Autauga County EMA; CARPDC			
Time frame for Completion	Continuous			
Estimated Cost	\$5,000			
Funding Sources	Local			
Priority	Low			
Benchmark	The county has provided mailings to residents on flooding and NFIP information.			
Mitigation Action	Develop informational workshops on hazard risks & mitigation for property owners in high risk			
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.			
Hazard(s) Addressed	Floods			
Applies to new/existing asset	Existing			
Local Planning Mechanism	Autauga County EMA; CARPDC			
Time frame for Completion	Continuous			
Estimated Cost	\$3,000			
Funding Sources	Local and Grants			
Priority	Low			
Benchmark	Information workshops have been conducted within the county for property owner's in flood prone areas They will continue to hold workshops to update residents as needed.			
Mitigation Action DELETE	Investigate avenues for real estate disclosure for properties in 100 year floodplain.			
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.			
Hazard(s) Addressed	Flood			
Applies to new/existing asset	New			
Local Planning Mechanism	Autauga County EMA; CARPDC			
Time frame for Completion	Within 3 years			
Estimated Cost	\$1,000,000			
Funding Sources	Local and Grants			
Priority	Low			
Benchmark	DELETE!-The county does not have the funds or resources to continue the pursuit of this action.			

Mitigation Action	Form permanent HMC of representatives from various organizations and departments to prepare hazard mitigation actions in the County
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	Existing
Local Planning Mechanism	Autauga County EMA; CARPDC
Time frame for Completion	Immediate and continuous
Estimated Cost	\$2,000
Funding Sources	Local
Priority	High
Benchmark	There was a permanent HMC formed to develop and complete mitigation actions within the county The committee will continue to prepare and complete actions during the next planning period.
Mitigation Action	Investigate a county fund to facilitate voluntarily acquiring, elevating, or retrofitting structures in hazard prone areas
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Hazard(s) Addressed	Flood
Applies to new/existing asset	Existing
Local Planning Mechanism	Autauga County EMA; CARPDC
Time frame for Completion	Within 3-5 years
Estimated Cost	\$1,000,000
Funding Sources	Local and Grants
Priority	
Benchmark	This action was completed by Autauga County EMA and CARPDC within the planning period.
Mitigation Action	Enforce forest and vegetation management policies
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Hazard(s) Addressed	Wildfires and Floods
Applies to new/existing asset	Existing
Local Planning Mechanism	Autauga County EMA; Municipalities; County; CARPDC
Time frame for Completion	Continuous
Estimated Cost	\$5,000
Funding Sources	Local
Priority	Medium
Benchmark	The county was able to enforce policies where needed. They plan to continue implementing this action as needed in the future.

Mitigation Action	Enforce urban forestry and landscape management policies
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
	County.
Hazard(s) Addressed	Wildfires and floods
Applies to new/existing asset	Existing and new
Local Planning Mechanism	Municipalities; County; Autauga EMA; CARPDC
Time frame for Completion	Continuous
Estimated Cost	\$10,000
Funding Sources	LOcal
Priority	Medium
Benchmark	The county was able to enforce such policies sufficiently during this planning period. They will continue implementing new policies where needed during the future planning period.
Mitigation Action	Develop and implement a Vegetative/Tree Risk Management Plan
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Hazard(s) Addressed	Wildfires and floods
Applies to new/existing asset	Existing
Local Planning Mechanism	Municipalities; County; Autauga EMA; CARPDC
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$8,500
Funding Sources	Local and Grants
Priority	Medium
Benchmark	The county has began to develop this plan and should have a complete plan in the near future. They will continue to update and revise existing plan when completed.
Mitigation Action	Enforce developmental best management practices
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New
Local Planning Mechanism	Municipalities; County; Autauga EMA; CARPDC
Time frame for Completion	Continuous
Estimated Cost	\$6,900
Funding Sources	Local
Priority	Medium
Benchmark	Practices have been established and enforced within the county. They plan to continue updating these practices and enforcing them as needed.

Enforce sediment and erosion control regulations
Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
County.
Flood
New and existing
Municipalities; County; Autauga EMA; CARPDC
Continuous
\$3,450
Local
Medium
New erosion and sediment regulations have been developed. The county plans to enforce them during the next planning period.
Enforce stream dumping regulations
Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Flood
New and existing
Municipalities; County; Autauga EMA; CARPDC
Continuous
\$4,000
Local
Medium
The county has established and enforced dumping regulations and will continue these efforts during future planning periods.
Enforce wetlands development regulations
Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Flood
New
Municipalities; County; Autauga EMA; CARPDC
Continuous
\$4,500
Local
Medium
Wetlands development regulations have been established and are being enforces within the county. They plan to review and revise these regulations as needed during future planning periods.

Mitigation Action	Construct barriers around structures in flood-prone areas
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Hazard(s) Addressed	Flood
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; County
Time frame for Completion	Within 10 years/Post disaster
Estimated Cost	\$100,000
Funding Sources	Local/Grants
Priority	Low
Benchmark	The county has established plans for the construction of barriers in the time they are needed. They plan to continuously constructing such structures there is a sufficient supply when needed.
Mitigation Action	Construct dams, levees, or reservoirs to reduce flooding issues.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Hazard(s) Addressed	Flood
Applies to new/existing asset	New
Local Planning Mechanism	Municipalities; County
Time frame for Completion	Within 10 years/Post disaster
Estimated Cost	\$600,000
Funding Sources	Local and Grants
Priority	Low
Benchmark	The county has planned construction of dams, levees and reservoirs should a disaster create the need.
Mitigation Action	Construct levees or floodwalls to protect communities with repetitive flooding problems.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Hazard(s) Addressed	Flood
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; County
Time frame for Completion	Within 10 years/Post disaster
Estimated Cost	\$950,000
Funding Sources	Local and Grants
Priority	Low
Benchmark	The construction of levees and floodwalls are planned in the case of a flooding event. They plan to construct them if funds become available.

Purchase floodway or repetitive loss structures to eliminate potential for flood damage.
Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Flood
Existing
Prattville; County; Autauga EMA; CARPDC
Immediate and continuous
\$780,000
Local and Grants
High
This action was completed by the Autauga County EMA, City of Prattville and CARPDC. They plan to continue these efforts during the next planning period when needed.
Regularly inspect and maintain bridges and culverts
Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Flood
Existing
Municipalities; County
Continuous
\$290,000
Local and Grants
Medium
The county has developed a process to inspect and maintain bridges and culverts within the county to mitigate flooding in flood prone areas. They plan to continue this process in the future planning periods.
Develop a stream corridor restoration plan
Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
County.
Flood
Existing
Municipalities; County
Continuous
\$68,000
Local and Grant
Medium The county has established and acted on a corridor restoration plan. They plan to continue these
efforts in the future planning periods.

Mitigation Action	Develop program for debris removal and vegetation management along selected streams.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
Hazard(s) Addressed	Flood
Applies to new/existing asset	Existing
Local Planning Mechanism	Municipalities; County
Time frame for Completion	Continuous
Estimated Cost	\$90,000
Funding Sources	Local and Grant
Priority	Medium
Benchmark	The county has began to develop a debris removal management along selected streams and plans
	to implement this management during future planning periods.
Mitigation Action	Create and maintain a database and map of all critical facilities in the County
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; Autauga EMA; CARPDC
Time frame for Completion	Within 1-3 years and continuous
Estimated Cost	\$4,980
Funding Sources	Local
Priority	High
Benchmark	The county has begun developing and updating maps of all critical facilities within the county. They will continue to update the complete the map during future planning periods.
Mitigation Action	Inspect critical facilities regularly to ensure they comply with standard codes and can withstand the impacts of a disaster.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; County; Autauga EMA
Time frame for Completion	Immediate and continuous
Estimated Cost	\$5,000 Local
Funding Sources	Local Medium
Priority Benchmark	Inspections have been conducted and results provided. The county plans to continue inspections in
	order to establish improvements that need to be made.

Relocate critical facilities out of the 100 year floodplain.
Protect the citizens of Autauga County as well as public and private property from the impacts of
Flood
Existing
Municipalities; County
Within 10 years/Post disaster
\$980,000
Local and Grant
Medium
The county has established and completed relocation of some properties in floodplain areas. They plan to continue these efforts of relocating critical facilities within the next planning period.
Ensure that all critical facilities have updated emergency response plans.
Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
All
New and existing
Autauga EMA
Within 3-5 years and continuous
\$6,000
Local
High
The county completed this action by reviewing and revising plans within the county. They plan to continue the review and revision of all plans within the county to ensure all plans are correct and updated.
Encourage, promote, and fund all critical facilities to be equipped or retrofitted for back-up energy Sources. (i.e.generators)
Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
All
New and existing
Autauga EMA; Municipalities; County
Within 3-5 years and continuous
\$100,000 each
Local and Grants
High The counter has alterized account of a count original familities. These also to continue the counter-
The county has obtained generators for some critical facilities. They plan to continue the purchase of generators as additional funds become available to supply all facilities.

Mitigation Action	Assist municipalities and the county in development of community shelters.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; County; Autauga EMA
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$100,000 each
Funding Sources	Local and Grants
Priority	High
Benchmark	The county will continue the effort to install community safe rooms should funds become available in future planning periods.
Mitigation Action	Assist and encourage private citizens and companies in developing safe rooms.
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of
Hazard(s) Addressed	Tornados
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA; Municipalities; County
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$5,000
Funding Sources	Local
Priority	High
Benchmark	The county has provided information to citizens and companies on purchasing or constructing community safe rooms for protection during severe weather. They plan to continue these efforts in the future.
Mitigation Action	Encourage public and private schools to re-evaluate structures and re-enforce as required.
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.
Hazard(s) Addressed	Tornados
Applies to new/existing asset	Existing
Local Planning Mechanism	Autauga EMA; Municipalities; County
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$6,000
Funding Sources	Local
Priority	High
Benchmark	The county has informed public and private schools on severe weather protection available in order to protect citizens.

Mitigation Action 2.7.1	Develop and maintain an early warning system of weather sirens within the county.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	Thunderstorms and Tornados
Applies to new/existing asset	New
Local Planning Mechanism	Autauga EMA; Municipalities; County
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$55,000
Funding Sources	Local and Grants
Priority	High
Benchmark	The county was able to develop and maintain early warning systems within the county. They plan to update and revise this warning system as needed in the future.
Mitigation Action	Encourage and promote citizens to obtain weather radios.
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.
Hazard(s) Addressed	Thunderstorms and Tornados
Applies to new/existing asset	Existing
Local Planning Mechanism	Autauga EMA; Municipalities; County
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$2,500
Funding Sources	Local and Grants
Priority	High
Benchmark	The county has informed the public on the importance of obtaining weather radios and will continue to do so in future.
Mitigation Action	Enforce floodplain development regulations and continued compliance with the National Flood Insurance Program (NFIP).
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of
Hazard(s) Addressed	Flood
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; County
Time frame for Completion	Within 1-3 years and continuous
Estimated Cost	\$6,250
Funding Sources	Local
Priority Benchmark	High The county has worked on creating regulations in compliance with the NFIP.

Mitigation Action	Offer technical assistance to municipalities in developing, addressing, and enforcing standards for development in floodplains, hillsides, and subdivisions in regards to design and environmental.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
Hazard(s) Addressed	Floods and landslides
Applies to new/existing asset	New
Local Planning Mechanism	CARPDC
Time frame for Completion	Continuous
Estimated Cost	\$10,000
Funding Sources	Local
Priority	Medium
Benchmark	The county has partnered with many municipalities in resolving floodplain developments. They will continue efforts in the future as well.
Mitigation Action	Develop stormwater management plans and regulation for those watersheds in the county that do not currently have a plan.
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	Thunderstorms and Floods
Applies to new/existing asset	Existing
Local Planning Mechanism	CARPDC: Municipalities
Time frame for Completion	Within 5-10 years
Estimated Cost	\$8,450
Funding Sources	Local and Grants
Priority	High
Benchmark	Plans have been discussed and started within the county and will continuously be revised.
Mitigation Action	Acquire easements or create development buffers in hazard prone areas, specifically 100 year floodplains.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
Hazard(s) Addressed	Flood
Applies to new/existing asset	Existing
Local Planning Mechanism	Municipalities
Time frame for Completion	Post-disaster
Estimated Cost	\$100,000
Funding Sources	Grants and Local
Priority Benchmark	Low
Mitigation Action	The county has acquired some of the properties in problem areas and will continue to do so. Promote open space preservation.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
Hazard(s) Addressed	Flood
Applies to new/existing asset	New
Local Planning Mechanism	CARPDC; Autauga EMA; Municipalities
Time frame for Completion	Continuous
Estimated Cost	\$4,000
Funding Sources	Local
Priority	Medium
Benchmark	Promotion has been done at the county level to inform people of open space preservation.

Mitigation Action	Require special use permits for hazard prone areas.
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
Hazard(s) Addressed	Flood
Applies to new/existing asset	New and existing
Local Planning Mechanism	County; Municipalities
Time frame for Completion	Continuous
-	
Estimated Cost	\$5,000
Funding Sources	Local
Priority	Low
Benchmark	The county has made it a requirement to obtain a permit in some hazard prone areas and will continue with the efforts on remaining properties/areas that need to be included as well.
Mitigation Action	Promote natural resource planning
Goal	Prevent the current and future risk of injury/death and damage from natural hazards in Autauga
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	CARPDC; Municipalities; County
Time frame for Completion Estimated Cost	Continuous \$2,250
	52,250 Local and Grants
Funding Sources Priority	Medium
Benchmark	Information and resources on natural resource planning has been released for citizens and
	businesses. The county will continue to update and inform on this action.
Mitigation Action 3.3.1	Review, evaluate, and discuss designated growth areas in the county and plans to ensure development will occur out of hazard prone areas.
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	Flood
Applies to new/existing asset	New
Local Planning Mechanism	CARPDC; Municipalities; County
Time frame for Completion	Continuous
Estimated Cost	\$45,000
Funding Sources	Local and Grants
Priority	High
Benchmark	The county has held meetings and planned for future growth and will continue to do so within the next planning period.

Mitigation Action	Review planned infrastructure to ensure that it will be developed outside of hazard prone areas.
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	Flood
Applies to new/existing asset	New
Local Planning Mechanism	CARPDC; Municipalities; County
Time frame for Completion	Continuous
Estimated Cost	\$36,000
Funding Sources	Local
Priority	High
Benchmark	The county has conducted a review of several areas and the infrastructure within it. They will continue their reviewing process and begin planning and completing updates on this action continuously.
Mitigation Action	Encourage and assist communities to participate in the National Flood Insurance Program (NFIP) Community Rating System (CRS)
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.
Hazard(s) Addressed	Flood
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA; CARPDC
Time frame for Completion	Within 5 years and continuous
Estimated Cost	\$2,300
Funding Sources	Local and Grants
Priority	Medium
Benchmark	Information and resources have been provided on this action in order for communities to participate in the NFIP DRS. The county will continue their efforts on this in the future.
Mitigation Action	Develop evacuation routes and an evacuation plan to be used in the event of a disaster.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural
Hazard(s) Addressed	All
Applies to new/existing asset	Existing
Local Planning Mechanism	Municipalities; Autauga EMA
Time frame for Completion	Continuous
Estimated Cost	\$4,500
Funding Sources	Local
Priority	High
Benchmark	Meetings and planning has been done on this action and the county will continue updating and revising their plans/routes as needed.

Mitigation Action	Create early warning system, including stream gauges, to warn of impending flash flooding.
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of
Hazard(s) Addressed	Flood
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA; CARPDC; Municipalities; County
Time frame for Completion	Continuous
Estimated Cost	\$150,000
Funding Sources	Local and Grants
Priority	High
Benchmark	Various warning systems have been assessed and will be implemented during the next planning period.
Mitigation Action	Encourage departments responsible for data relating to parcels, centerlines, buildings, addresses, hydrology and hazards to develop and enforce data maintenance policies
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA;CARPDC; Tax Assessment; Municipalities
Time frame for Completion	Continuous
Estimated Cost	\$7,450
Funding Sources	Local and Grants
Priority	Medium
Benchmark	The county has released information on developing a maintenance plan to keep information accurate in emergency events. They plan to continue these efforts in the future for the safety of the citizens.
Mitigation Action	Encourage the development of data sharing policies and agreements between departments and organizations responsible for data creation, management and use.
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA;CARPDC; Tax Assessment; Municipalities
Time frame for Completion	Continuous
Estimated Cost	\$45,000
Funding Sources	Local, Municipalities and Grants
Priority Benchmark	Medium The importance of data sharing has been stressed by the county to the municipalities. They will continue the efforts of creating/obtaining a data sharing system for the safety of the citizens.

Mitigation Action	Develop and maintain hazard occurrence databases to record information on hazards such as date
	And time of occurrence, duration, amount of damage, number of injuries and/or deaths,
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New
Local Planning Mechanism	Autauga EMA
Time frame for Completion	Continuous
Estimated Cost	\$33,000
Funding Sources	Local and Grants
Priority	Medium
Benchmark	Discussion and assessment of databases have been done by the county officials. They plan to continue the research in the development and ongoing updating of a system such as this.
Mitigation Action	Develop detailed databases on parcels and buildings in and out of the 100 year floodplain. Data should include first floor elevations, number of stories, basements, value of structure, etc.
Goal	Encourage proper information management of data related to natural hazards in Autauga County.
Hazard(s) Addressed	Flood
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA; CARPDC; Tax Assessment; Municipalities
Time frame for Completion	Continuous
Estimated Cost	\$49,850
Funding Sources	Local and Grants
Priority	Low
Benchmark	The county has met with municipalities on the development and importance of having a database with this information for the safety of the citizens.
Mitigation Action	Work with FEMA to update current NFIP floodplain maps and determine flood elevations for the County
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Hazard(s) Addressed	Food
Applies to new/existing asset	New and Existing
Local Planning Mechanism	Autauga EMA; CARPDC
Time frame for Completion	Continuous
Estimated Cost	\$5,400
Funding Sources	Local and Grants
Priority	
Benchmark	The county has started an update to the NFIP floodplain maps and will continue to do so as changes develop.

Mitigation Action	Develop and distribute a list of contact persons for each organization that may play a part in
	Emergency response, services, relief, or hazard mitigation.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and Existing
Local Planning Mechanism	Autauga EMA
Time frame for Completion	Immediate and continuous
Estimated Cost	\$1,500
Funding Sources	Local
Priority	High
Benchmark	The county has a directory of agencies, personnel and other items in case of emergencies.
Mitigation Action	Encourage the heads of each department or organization involved in emergency response, services, relief, or hazard mitigation to meet several times a year to discuss mitigation issues.
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA
Time frame for Completion	Continuous
Estimated Cost	\$2,420
Funding Sources	Local
Priority	High
Benchmark	Information and resources have been released on the importance of planning and meeting for the
	organizations, agencies and municipalities. This will be continuous to keep all organizations updated.
Mitigation Action	Develop a clear chain of command that would be used in the event of a disaster.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA
Time frame for Completion	Continuous
Estimated Cost	\$45,690
Funding Sources	Local and Grants
Priority	High
Benchmark	Meeting and planning has been done for this action. The county and organizations will continue their efforts on this action as needed.

Mitigation Action	Update emergency management communication systems.
Miligation Action	optiate emergency management communication systems.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	Existing
Local Planning Mechanism	Autauga EMA
Time frame for Completion	Continuous
Estimated Cost	\$145,000
Funding Sources	Local and Grants
Priority	High
Benchmark	Proposals and plans have been established for this project. Ongoing updates will be needed as the project continues into the future.
Nitication Astion	
Mitigation Action	Develop informational workshops or programs on hazard mitigation and available funding for organizations, departments, elected officials, and volunteers.
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA; CARPDC
Time frame for Completion	Continuous
Estimated Cost	\$25,000
Funding Sources	Local and Grants
Priority	Medium
Benchmark	The county has held meetings on the importance of hazard mitigation and the participation of
	organizations/departments in the planning process. They will continue to hold meetings on future updates as needed.
Mitigation Action	Disseminate informational brochures for organizations involved in emergency response, services, relief, or hazard mitigation.
Goal	Increase public education and awareness of existing and potential hazards in Autauga County.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA
Time frame for Completion	Continuous
Estimated Cost	\$1,250
Funding Sources	Local
Priority	Low
Benchmark	Informational brochures have been released to the public on the involvement of emergency response and hazard mitigation. These brochures will continuously be updated and distributed as needed within the county.

Mitigation Action	Inventory all available equipment and technology used for emergency response, services, and relief to determine deficiencies.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural
Hazard(s) Addressed	All
Applies to new/existing asset	Existing
Local Planning Mechanism	Autauga EMA
Time frame for Completion	Immediate and continuous
Estimated Cost	\$46,000
Funding Sources	Local and Grants
Priority	Medium
Benchmark	Inventory has been started on some agencies within the county. They will continue to stress the importance of this information and inventory to be done so that participation in this effort will increase.

Section Five: Jurisdiction Assessments

City of Prattville

Table 5-1: City of Prattville									
Risk and Vulnerability Overview									
Natural Hazards	Hazard Identification	Mitigation Actions Prioritization	Prioritized Occurrence Threat	Vulnerability					
Thunderstorm	Х	Н	1	Н					
Lightning	Х	Н	9	Н					
Hail	Х	Н	3	Н					
Tornado	Х	Н	4	Н					
Flood/Flash Flood	Х	Н	7	М					
Drought/Extreme Heat	Х	М	2	Н					
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/ Extreme Cold	Х	М	8	М					
Hurricane/Tropical Storm/ Tropical Depression/High Wind/Strong Wind	Х	L	6	L					
Sinkhole/Expansive Soil	N/A	L	13	L					
Landslide	N/A	L	10	L					
Earthquake	N/A	L	11	L					
Wildfire	Х	М	1	Н					
Dam/Levee Failure	Х	L	12	L					

KEY:

Hazard Identification - Identified by local jurisdictions

Mitigation Actions Prioritization - Hazards are prioritized by jurisdictions based on past hazard experiences, vulnerabilities, and available mitigation actions with the hazard having highest priority of mitigation assigned number one.

Prioritized Occurrence Threat - 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. These prioritized threats may or may not be the same as the mitigation actions prioritization.

Vulnerability – Identified by local jurisdictions. 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); and H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)

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

TABLE 5-2: CITY OF PRATTVILLE HAZARD EVENTS

17 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>Tvpe</u> <u>Mag</u>		<u>Dth</u>	Inj	<u>PrD</u>	<u>CrD</u>
COUNTYWIDE	AUTAUGA CO.	AL	03/13/2 003	14:5 0	CST	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	03/14/2 003	20:5 2	CST	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/25/2 003	15:2 3	CST	Thunderstorm Wind	70 kts. EG	0	3	1.000M	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	03/07/2 005	18:5 9	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
<u>PRATTVILLE</u>	AUTAUGA CO.	AL	03/31/2 005	06:3 8	CST	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
<u>PRATTVILLE</u>	AUTAUGA CO.	AL	04/21/2 005	14:3 2	CST	Thunderstorm Wind	51 kts. EG	0	0	12.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	04/30/2 005	06:0 1	CST	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
<u>PRATTVILLE</u>	AUTAUGA CO.	AL	05/20/2 005	17:4 5	CST	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
<u>PRATTVILLE</u>	AUTAUGA CO.	AL	05/10/2 006	15:1 2	CST	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	08/15/2 006	16:4 5	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/04/2 007	02:2 4	CST-6	Thunderstorm Wind	39 kts. EG	0	0	2.00K	0.00K
<u>PRATTVILLE</u>	AUTAUGA CO.	AL	06/11/2 008	16:4 5	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	06/29/2 008	16:0 2	CST-6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	03/26/2 011	14:4 5	CST-6	Thunderstorm Wind	55 kts. EG	0	0	8.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/11/2 011	20:0 3	CST-6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	05/26/2 011	13:0 0	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Totals:								0	3	1.625M	0.00K

0/Unknown Lightning Events – 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database) No/unknown lightning events occurred or were reported during 01/01/2003 thru 12/31/2013.

(Source: NOAA NCDC Storm Events Database)											
<u>Location</u>	County/Zone	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>lnj</u>	<u>PrD</u>	<u>CrD</u>
	AUTAUGA										
PRATTVILLE	CO.	AL	03/14/2003	20:52	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/07/2004	22:04	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/07/2004	22:23	CST	Hail	1.75 in.	0	0	30.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	03/27/2005	11:21	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/21/2005	14:50	CST	Hail	1.00 in.	0	0	1.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/22/2005	18:42	CST	Hail	0.75 in.	0	0	1.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/08/2006	08:16	CST	Hail	1.75 in.	0	0	0.00K	0.00K
PINE LEVEL	AUTAUGA CO.	AL	04/19/2006	21:14	CST	Hail	1.00 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/19/2006	21:28	CST	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	08/11/2006	17:00	CST	Hail	0.88 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	02/13/2007	18:40	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	04/02/2007	15:46	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
Totals:								0	0	32.00K	0.00K

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

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

<u>Location</u>	County/Zone	<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>
PRATTVILLE	AUTAUGA CO.	AL	07/06/2005	13:56	CST	Tornado	F0	0	0	2.00K	0.00K
PRATTVILLE ARPT	AUTAUGA CO.	AL	02/17/2008	14:58	CST-6	Tornado	EF3	0	50	10.000M	0.00K
PRATTVILLE ARPT	AUTAUGA CO.	AL	08/25/2008	06:25	CST-6	Tornado	EF0	0	0	2.00K	0.00K
PRATTVILLE ARPT	AUTAUGA CO.	AL	11/30/2010	09:57	CST-6	Tornado	EF1	0	0	58.00K	0.00K
Totals:								0	50	10.062M	0.00K

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

						lis Daraoa					
Location	County/Zone	<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>
						Flash					
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	04/07/2003	07:30	CST	Flood		0	0	50.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	07/01/2003	06:00	сѕт	Flash Flood		0	0	8.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	09/16/2004	09:15	сѕт	Flash Flood		0	0	8.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/01/2005	00:00	сѕт	Flood		0	0	0.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	04/01/2005	05:00	сѕт	Flash Flood	0.00	0	0	8.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	06/08/2005	18:10	сѕт	Flash Flood		0	0	11.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	05/10/2006	15:12	сѕт	Flash Flood		0	0	0.00K	0.00K
PRATTVILLE	AUTAUGA CO.	AL	02/13/2007	19:23	CST- 6	Flash Flood		0	0	0.00K	0.00K
Totals:								0	0	85.00K	0.00K

32 Drought/Extreme Heat Events – 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database)

Location	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	Time	<u>T.Z.</u>	<u>Type</u>	Mag	<u>Dth</u>	Inj	<u>PrD</u>	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/22/2007	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/05/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/21/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/22/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/02/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/03/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/20/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

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

<u>Location</u>	County/Zone	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	Mag	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/24/2003	00:00	CST	Extreme Cold/wind Chill		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/07/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/08/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/19/2008	06:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2009	03:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/12/2010	10:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/15/2010	07:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/09/2011	13:00	CST- 6	Ice Storm		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/09/2011	21:30	CST- 6	Winter Weather		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

(Source: NOAA NCDC Storm Events Database)

14 Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind Events -

	(301	irce	NOAA	NCD	C SIOI	rm Events Date	ubuse)				1
<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>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/16/2004	05:30	СЅТ	High Wind	71 kts. EG	0	0	2.600M	100.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/12/2005	02:00	CST	Strong Wind	40 kts. EG	0	0	1.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/11/2005	14:00	СЅТ	Strong Wind	40 kts. EG	0	0	3.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/10/2005	15:00	сѕт	Tropical Storm		0	0	180.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/29/2005	17:00	сѕт	Tropical Storm		0	0	80.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/07/2008	04:40	CST- 6	Strong Wind	40 kts. EG	0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/23/2008	12:00	CST- 6	Tropical Depression		0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/28/2009	05:25	CST- 6	Strong Wind	35 kts. EG	0	0	15.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/13/2009	01:30	CST- 6	Strong Wind	35 kts. EG	0	0	20.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	11/09/2009	14:00	CST- 6	Tropical Depression		0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	14:36	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	20:57	CST- 6	Strong Wind	39 kts. MG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
Totals:								0	0	2.919M	100.00K

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

0/Unknown Sinkhole/Expansive Soil Events - 01/01/2003 thru 12/31/2013 (4018 days) No/unknown sinkhole events were reported during 01/01/2003 thru 12/31/2013 by the Local Jurisdictions, NOAA NCDC Storm Events Database or the U.S./AL Geological Survey **0/Unknown Landslide Events** - 01/01/2003 thru 12/31/2013 (4018 days)

No/unknown landslide events were reported during 01/01/2003 thru 12/31/2013 by the Local Jurisdictions, NOAA NCDC Storm Events Database or the U.S./AL Geological Survey

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

No/unknown earthquake events were reported during 01/01/2003 thru 12/31/2013 by the Local Jurisdictions, NOAA NCDC Storm Events Database or the U.S./AL Geological Survey

114 Wildfir	e Events –	- 1/1/2010	thru	12/31/2013
(Source:	Alabama	Forestry (Com	mission)

County	Total # of Fires 2010-2013	Average # of Fires Per Year	Total Acres Burned 2010-2013	Average Acres Burned Per Year	Average Fire Size
Autauga	114	38	881.75	293.92	7.73

0/Unknown Dam/Levee Failure Events - 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013.

		: City of Pra								
Hazard Probability Assessment										
Natural Hazards	Number of Historical Occurrences	Probability of Future Annual Occurrence	Extent	Area Affected						
Thunderstorm	17	>100%	>10%	Citywide						
Lightning	0	Unknown	>10%	Citywide						
Hail	11	>100%	>10%	Citywide						
Tornado	4	40%	>10%	Citywide						
Flood/Flash Flood	8	80%	5-10%	Citywide						
Drought/Extreme Heat	32	>100%	>10%	Citywide						
Winter Storm/Frost Freeze/ Heavy Snow/ Ice Storm/ Winter Weather/ Extreme Cold	9	90%	>10%	Citywide						
Hurricane/Tropical Storm/ Tropical Depression/High Wind/ Strong Wind	14	>100%	>10%	Citywide						
Sinkhole/Expansive Soil	0	Unknown	<5%	Citywide						
Landslide	0	Unknown	<5%	Citywide						
Earthquake	0	Unknown	<5%	Citywide						
Wildfire	114	>100%	>10%	Citywide						
Dam/Levee Failure	0	Unknown	<5%	Citywide						
Source: NOAA NCDC; U. S. Inflation C Forestry Commission; and Nat			· · ·	sus of Agriculture; Alabama						

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 summary (Table 4-12). Zero denotes no data available to determine the probability, extent, or affected area.

TABLE	5-4: City of Prattville	Critical Facilities	
Facility	Location	Use	Value
Governmental Services			
Prattville City Hall/Police	101 West Main Street	Local Government	\$3,360,366
Prattville City Hall Annex	102 West Main Street	Local Government	\$1,203,309
Police Tactical Center	1255 Reuben Road	Law Enforcement	\$720,727
Autauga Co. Sheriff's Ofc. Renv	162 W 4 th Street	Law Enforcement	\$2,516,651
Fire Station #1	942 East Main Street	Fire Fighting	\$1,447,815
Fire Station #2	163 West 4 th Street	Fire Fighting	\$1,182,586
Fire Station #3	1904 Briarwood Drive	Fire Fighting	\$3,262,447
Public Works			
Autauga Crk Wastewater Trtmt	Reuben Road	Sewer	\$17,050,046
Pine Creek Wastewater Trtmt	100 Pine Creek Drive	Sewage	\$2,961,943
Education			
Autauga Academy	497 Golson Road	Education	\$2,187,750
Camellia Baptist WEM	201 Woodvale Road	Education	\$187,150
First Baptist Kindergarten	138 S. Washington St	Education	\$224,580
Prattville Junior High School	1089 N Chestnut	Education	\$20,281,140
Prattville Primary School	216 Wetumpka St.	Education	\$9,313,380
Daniel Pratt Elementary School	420 Harvest Loop	Education	\$17,300,640
Louise M Smith Development Ctr	154 Beth Manor Drive	Education	\$6,733,560
Prattville Elementary School	134 Patrick St	Education	\$7,967,980
Prattville Intermediate School	1020 Honeysuckle Drive	Education	\$10,317,430
Autauga County AL Alternative School	819 Cardinal Lane	Education	\$4,349,300
Prattville Kindergarten School	338 1 st St.	Education	\$6,622,580
Prattville High School	1315 Upper Kingston Road	Education	\$43,160,820
Autauga Co. Technology Ctr	1301 Upper Kingston Road	Education	\$6,733,560
Autauga Academy	497 Golson Road	Education	\$2,187,750
Camellia Baptist WEM	201 Woodvale Road	Education	\$187,150
First Baptist Kindergarten	138 S. Washington St	Education	\$224,580
Prattville Junior High School	1089 N Chestnut	Education	\$20,281,140
Prattville Primary School	216 Wetumpka St.	Education	\$9,313,380
Daniel Pratt Elementary School	420 Harvest Loop	Education	\$17,300,640
Louise M Smith Development Ctr		Education	\$6,733,560
Prattville Elementary School	134 Patrick St	Education	\$7,967,980
Prattville Intermediate School	1020 Honeysuckle Drive	Education	\$10,317,430
Autauga County AL Alternative	819 Cardinal Lane	Education	\$4,349,300
Prattville Kindergarten School	338 1 st St.	Education	\$6,622,580
Prattville High School	1315 Upper Kingston Road	Education	\$43,160,820
Autauga Co. Technology Ctr	1301 Upper Kingston Road	Education	\$6,733,560
Autauga Academy	497 Golson Road	Education	\$2,187,750
Camellia Baptist WEM	201 Woodvale Road	Education	\$187,150
Medical			
Prattville Baptist Hospital	124 South Memorial Drive	Medical Care	\$18,638,330
Other			φ10,030,330
Sanitation Department	924 Industrial Parkway		\$476,434
Street Department	694 Doster Road		\$463,682

Table 5-5: City of Prattville										
Estin	nated Loss P	rojectio	ns from S	Specified H	lazards					
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	1.7	0	3	\$4,090	\$63,058	\$68,733				
Lightning	0	0	0	Unknown	0	0				
Hail	1.1	0	0	Unknown	\$2,909	\$3,171				
Tornado	0.4	0	50	\$289,688	\$2,515,000	\$2,741,350				
Flood/Flash Flood	.08	0	0	Unknown	\$10,625	\$11,581				
Drought/Extreme Heat	3.2	0	0	Unknown	0	0				
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	.09	0	0	Unknown	0	0				
Hurricane/Tropical Storm/Tropical Depression/High Wind/Strong Wind	1.4	0	0	Unknown	\$215,785	\$235,206				
Sinkhole/Expansive Soil	0	0	0	Unknown	0	0				
Landslide	0	0	0	Unknown	0	0				
Earthquake	0	0	0	Unknown	0	0				
Wildfire	11.4	0	0	Unknown	\$558,448	\$608,708				
Dam/Levee Failure	0	0	0	Unknown	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 tenyear 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. 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 or Unknown denotes there is no data available to determine the average occurrences, average loss or projected loss per event.

City of Prattville Mitigation Action Plan

The City of Prattville 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 5-6** shows the City of Prattville's updated mitigation actions. During the plan update process new actions were identified and added to the plan. The status of mitigation actions can be found under Benchmark.

Table	5-6: City of Prattville Mitigation Actions
Mitigation Action	Development of community shelters.
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; County; Autauga EMA
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$100,000 each
Funding Sources	Local and Grants
Priority	High
Benchmark	The county will continue the effort to install community safe rooms should funds
Mitigation Action	Encourage, promote, and fund all critical facilities to be equipped or retrofitted for back-up power.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA; Municipalities; County
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$100,000 each
Funding Sources	Local and Grants
Priority	High
Benchmark	The county has obtained generators for some critical facilities. They plan to

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Town of Autaugaville

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	Table 5-7: Town of AutaugavilleRisk and Vulnerability Overview										
Natural Hazards	Hazard Identification	Mitigation Actions Prioritization	Prioritized Occurrence Threat	Vulnerability							
Thunderstorm	Х	Н	1	Н							
Lightning	Х	Н	2	Н							
Hail	Х	Н	8	М							
Tornado	Х	Н	6	М							
Flood	Х	Н	4	М							
Drought/Extreme Heat	Х	М	3	Н							
Winter Storm/Frost Freeze/ Heavy Snow/Ice Storm/Winter	Х	М	5	М							
Hurricane/Tropical Storm/ Tropical Depression/ High Wind/	Х	L	7	М							
Sinkhole/Expansive Soil	N/A	L	10	L							
Landslide	N/A	L	11	L							
Earthquake	N/A	L	12	L							
Wildfire	Х	М	2	Н							
Dam/Levee Failure	N/A	L	9	L							

KEY:

Hazard Identification – Identified by local jurisdictions

Mitigation Actions Prioritization - Hazards are prioritized by jurisdictions based on past hazard experiences, vulnerabilities, and available mitigation actions with the hazard having highest priority of mitigation assigned number one.

Prioritized Occurrence Threat - 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 fifteen years. Some natural hazards have equal threats to a jurisdiction; therefore, their threat number will be the same. These prioritized threats may or may not be the same as the mitigation actions prioritization.

Vulnerability – Identified by local jurisdictions. 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); and H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)

(Source: NOAA NCDC Storm Events Database; Alabama Forestry Commission; National Forestry Service; Alabama Geological Survey; Participating Jurisdictions, 2014)

TABLE 5-8: TOWN OF AUTAUGAVILLE HAZARD EVENTS

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

<u>Location</u>	County/Zone	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	Mag	<u>Dth</u>	Inj	<u>PrD</u>	<u>CrD</u>
COUNTYWIDE	AUTAUGA CO.	AL	03/13/2003	14:50	CST	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	03/07/2005	18:59	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	04/30/2005	06:01	CST	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	10/23/2007	00:30	CST -6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	07/11/2008	17:45	CST -6	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	04/10/2009	19:15	CST -6	Thunderstorm Wind	40 kts. EG	0	0	0.50K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	04/11/2011	19:50	CST -6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	09/20/2011	13:07	CST -6	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	07/23/2013	14:10	CST -6	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Totals:								0	3	1.625 M	0.00K

0/Unknown Lightning Events – 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database) No/unknown lightning events occurred or were reported during 01/01/2003 thru 12/31/2013.

2 Hail Even	ts - 01/01/2003 thru 12/31/2013 (4018 days)
(Source:	NOAA NCDC Storm Events Database)

Location	County/Zone	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>lnj</u>	<u>PrD</u>	<u>CrD</u>
AUTAUGAVILLE	AUTAUGA CO.	AL	03/26/2005	18:27	сѕт	Hail	0.88 in.	0	0	0.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	05/06/2012	09:28	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

3Tornado Event – 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database)

<u>Location</u>	County/Zone	<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>
AUTAUGAVILLE	AUTAUGA CO.	AL	11/24/2004	06:24	CST	Tornado	F2	0	1	900.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	07/06/2005	12:27	CST	Tornado	F1	0	0	14.00K	0.00K
AUTAUGAVILLE	AUTAUGA CO.	AL	11/28/2005	18:41	CST	Tornado	F0	0	0	34.00K	0.00K
Totals:								0	1	948.00K	0.00K

5 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>Tvpe</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	04/07/2003	07:30	сѕт	Flash Flood		0	0	50.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	07/01/2003	06:00	сѕт	Flash Flood		0	0	8.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	09/16/2004	09:15	сѕт	Flash Flood		0	0	8.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/01/2005	00:00	сѕт	Flood		0	0	0.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	04/01/2005	05:00	сѕт	Flash Flood	0.00	0	0	8.00K	0.00K
Totals:								0	0	74.00K	0.00K

32 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>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/22/2007	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/05/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/21/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/22/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/02/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/03/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/20/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

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

Events –	01/01/2005 unu $12/51/2015$ (4016 uays)	
(Source:	NOAA NCDC Storm Events Database)	

<u>Location</u>	County/Zone	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	Mag	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/24/2003	00:00	сѕт	Extreme Cold/wind Chill		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/07/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	04/08/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/19/2008	06:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2009	03:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/12/2010	10:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	12/15/2010	07:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	01/09/2011	13:00	CST- 6	Ice Storm		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/09/2011	21:30	CST- 6	Winter Weather		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

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

Location	County/Zone	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	Mag	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	09/16/2004	05:30	сѕт	High Wind	71 kts. EG	0	0	2.600M	100.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/12/2005	02:00	CST	Strong Wind	40 kts. EG	0	0	1.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/11/2005	14:00	СЅТ	Strong Wind	40 kts. EG	0	0	3.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/10/2005	15:00	сѕт	Tropical Storm		0	0	180.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/29/2005	17:00	сѕт	Tropical Storm		0	0	80.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/07/2008	04:40	CST- 6	Strong Wind	40 kts. EG	0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/23/2008	12:00	CST- 6	Tropical Depression		0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/28/2009	05:25	CST- 6	Strong Wind	35 kts. EG	0	0	15.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/13/2009	01:30	CST- 6	Strong Wind	35 kts. EG	0	0	20.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	11/09/2009	14:00	CST- 6	Tropical Depression		0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	14:36	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	20:57	CST- 6	Strong Wind	39 kts. MG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
Totals:								0	0	2.919M	100.00K

(Source: NOAA NCDC Storm Events Database)

0/Unknown Sinkhole Events - 01/01/2003 thru 12/31/2013 (4018 days) (*Source: NOAA NCDC Storm Events Database/U.S. Geological Survey*) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013.

0/Unknown Landslide Events - 01/01/2003 thru 12/31/2013 (4018 days) (*Source: NOAA NCDC Storm Events Database/U.S. Geological Survey*) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013. **0/Unknown Earthquake Events** - 01/01/2003 thru 12/31/2013 (4018 days) (*Source: NOAA NCDC Storm Events Database/U.S. Geological Survey*) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013.

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
Autauga	114	38	881.75	294	7.74

114 Wildfire Events – 1/1/2010 thru 12/31/2013 (Source: Alabama Forestry Commission)

0/Unknown Dam/Levee Failure Events - 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013.

	Table 5-9: Town of AutaugavilleHazard Probability Assessment										
Natural Hazards	Number of Historical Occurrences	Probability of Future Occurrence	Extent	Area Affected							
Thunderstorm	9	90%	>10%	Town wide							
Lightning	0	Unknown	5-10%	Town wide							
Hail	2	20%	>10%	Town wide							
Tornado	3	30%	>10%	Town wide							
Flood/Flash Flood	5	50%	>10%	Town wide							
Drought/Extreme Heat	32	>100%	>10%	Town wide							
Winter Storm/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/ Extreme Cold	9	90%	>10%	Town wide							
Hurricane/High Wind/ Strong Wind/Tropical Storm/Tropical Depression	14	>100%	>10%	Town wide							
Sinkhole/Expansive Soil	0	Unknown	0-5%	Town wide							
Landslide	0	Unknown	0-5%	Town wide							
Earthquake	0	Unknown	0-5%	Town wide							
Wildfire (2010-2013 – 3 year study period)	114	>100%	>10%	Town wide							
Dam/Levee Failure	0	Unknown	0-5%	N/A							

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 summary (Table 4-12). Zero denotes no data available to determine the probability, extent, or affected area.

TABLE 5-	10: Town of Autauga	ville Critical Facilitie	s
Facility	Location	Use	Value
Governmental Services			
Town Hall /Police Station/Fire Department	109 N Taylor Street	Administration/Law Enforcement/Fire Fighting	\$3,615,582
Public Works			
Sanitary Sewer Treatment Facility		Sewer	\$978,360
Industrial			
Education			
Autaugaville School	2708 Dutch Bend St	Education	\$562,000
Miscellaneous			
Harvest House Senior Center	2416 Dutch Bend Street		\$427,825
Source: Local Jurisdiction		TOTAL	\$5,583,767

	Fable 5-11: 7 1 Loss Projec		0		ards	
Natural Hazards	Average Occurrences (per year)	Total Deaths	Total Injuries	Average Death and Injury Loss (per event)	Average Crop and Property Loss	Projected Loss (per event)
Thunderstorm	<1	0	0	0	\$2,056	\$2,241
Lightning	0	0	0	0	0	0
Hail	<1	0	0	0	0	0
Tornado	<1	0	1	<1	\$316,000	\$344,440
Flood/Flash Flood	<1	0	0	0	\$14,800	\$16,132
Drought/Extreme Heat	3.2	0	0	0	\$0	0
Winter Storm/Frost Freeze/ Heavy Snow/Ice Storm/Winter Weather/ Extreme Cold	<1	0	0	0	\$0	0
Hurricane/Tropical Storm/ Tropical Depression/High Wind/ Strong Wind	1.4	0	0	0	\$215,643	\$235,051
Sinkhole/Expansive Soil	0	0	0	0	\$0	0
Landslide	0	0	0	0	\$0	0
Earthquake	0	0	0	0	\$0	0
Wildfire (15 year study period)	38	0	0	0	\$558,600	\$608,874
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, 2014

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. Projected loss expresses an estimated damage amount per future occurrence by converting the average loss figures 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.

Town of Autaugaville Mitigation Action Plan

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

Mitigation Status

In order to track the progress of identified actions, the Town of Autaugaville's 2009 Mitigation Action Plan is shown below. The current statuses of the proposed actions are shown in italics.

Table 5	5-12: City of Autauga Mitigation Actions
Mitigation Action	Development of community shelters.
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Municipalities; County; Autauga EMA
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$100,000 each
Funding Sources	Local and Grants
Priority	High
Benchmark	The county will continue the effort to install community safe rooms should funds
Mitigation Action	Encourage, promote, and fund all critical facilities to be equipped or retrofitted for back-up power.
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	New and existing
Local Planning Mechanism	Autauga EMA; Municipalities; County
Time frame for Completion	Within 3-5 years and continuous
Estimated Cost	\$100,000 each
Funding Sources	Local and Grants
Priority	High
Benchmark	The county has obtained generators for some critical facilities. They plan to continue the purchase of generators as additional funds become available to supply all facilities.

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Town of Billingsley

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	Table 5-13: Town of BillingsleyRisk and Vulnerability Overview										
Natural Hazards	Hazard Identification	Mitigation Actions Prioritization	Prioritized Occurrence Threat	Vulnerability							
Thunderstorm	Х	Н	1	Н							
Lightning	Х	Н	7	М							
Hail	Х	Н	8	М							
Tornado	Х	Н	8	М							
Flood	Х	Н	4	М							
Drought/Extreme Heat	Х	М	3	Н							
Winter Storm/Frost Freeze/ Heavy Snow/Ice Storm/Winter Weather/Extreme Cold	Х	М	5	М							
Hurricane/Tropical Storm/ Tropical Depression/ High Wind/ Strong Wind	х	L	6	М							
Sinkhole/Expansive Soil	N/A	L	10	L							
Landslide	N/A	L	11	L							
Earthquake	N/A	L	12	L							
Wildfire	Х	М	2	Н							
Dam/Levee Failure	N/A	L	13	L							

KEY:

Hazard Identification - Identified by local jurisdictions

Mitigation Actions Prioritization - Hazards are prioritized by jurisdictions based on past hazard experiences, vulnerabilities, and available mitigation actions with the hazard having highest priority of mitigation assigned number one.

Prioritized Occurrence Threat - 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 fifteen years. Some natural hazards have equal threats to a jurisdiction; therefore, their threat number will be the same. These prioritized threats may or may not be the same as the mitigation actions prioritization.

Vulnerability – Identified by local jurisdictions. 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); and H – High Risk; significant risk/major damage potential (damage to over 10% of jurisdiction, regular occurrence)

(Source: NOAA NCDC Storm Events Database; Alabama Forestry Commission; National Forestry Service; Alabama Geological Survey; Participating Jurisdictions, 2014)

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TABLE: 5-14: TOWN OF BILLINGSLEY HAZARD EVENTS

		(Sourc	e: N	OAA N	CDC Storm Ever	nts Data	base)			
<u>Location</u>	County/Zo	one <u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z</u>	<u>. Type</u>	Mag	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
COUNTYWIDE	AUTAUGA CO.	AL	03/1 3/20 03	14:5 0	CST	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	08/0 4/20 03	16:2 9	СЅТ	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	07/1 2/20 04	17:5 5	CST	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	03/0 7/20 05	18:5 9	CST	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	04/0 1/20 05	16:2 9	CST	Thunderstorm Wind	70 kts. EG	0	0	350.00K	0.00K
COUNTYWIDE	AUTAUGA CO.	AL	04/3 0/20 05	06:0 1	CST	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	04/1 9/20 06	21:1 6	CST	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	06/1 4/20 09	11:5 3	CST-6	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Totals:								0	0	373.00K	0.00K

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

0/unknown Lightning Events – 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database) No/unknown lightning events occurred or were reported during 01/01/2003 thru 12/31/2013.

	(Seu	cc.	10011110			200111	Duiuo	usej			
<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>lnj</u>	<u>PrD</u>	<u>CrD</u>
BILLINGSLEY	AUTAUGA CO.	AL	04/25/2003	14:40	CST	Hail	1.00 in.	0	0	0.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	06/02/2003	19:10	CST	Hail	0.75 in.	0	0	0.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	03/22/2005	23:26	CST	Hail	1.75 in.	0	0	8.00K	0.00K
BILLINGSLEY	AUTAUGA CO.	AL	10/24/2010	17:36	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
Totals:								0	0	8.00K	0.00K

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

0/unknown Tornado Events – 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database) No/unknown tornado events occurred or were reported during 01/01/2003 thru 12/31/2013.

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

<u>Location</u>	County/Zone	<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>
COUNTYWIDE	AUTAUGA CO.	AL	04/07/2003	07:30	сѕт	Flash Flood		0	0	50.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	07/01/2003	06:00	сѕт	Flash Flood		0	0	8.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	09/16/2004	09:15	сѕт	Flash Flood		0	0	8.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	04/01/2005	00:00	сѕт	Flood		0	0	0.00K	0.00K
<u>COUNTYWIDE</u>	AUTAUGA CO.	AL	04/01/2005	05:00	сѕт	Flash Flood	0.00	0	0	8.00K	0.00K
Totals:								0	0	74.00K	0.00K

32 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>	Time	<u>T.Z.</u>	-	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/18/2006	07:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2006	00:00	CST	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/22/2007	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2007	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	05/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/01/2008	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/05/2008	06:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/21/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	10/01/2010	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/22/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/02/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2011	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	07/03/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	11/20/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/01/2012	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/01/2013	00:00	CST-6	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

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

<u>Location</u>	County/Zone	<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>
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	01/24/2003	00:00	сѕт	Extreme Cold/wind Chill		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/07/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/08/2007	00:00	CST- 6	Frost/freeze		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/19/2008	06:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/01/2009	03:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	02/12/2010	10:00	CST- 6	Heavy Snow		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	12/15/2010	07:00	CST- 6	Winter Weather		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	01/09/2011	13:00	CST- 6	Ice Storm		0	0	0.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	02/09/2011	21:30	CST- 6	Winter Weather		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

(Source: NOAA NCDC Storm Events Database)

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

<u>Location</u>	County/Zone	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	Mag	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/16/2004	05:30	CST	High Wind	71 kts. EG	0	0	2.600M	100.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/12/2005	02:00	CST	Strong Wind	40 kts. EG	0	0	1.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	06/11/2005	14:00	CST	Strong Wind	40 kts. EG	0	0	3.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	07/10/2005	15:00	сѕт	Tropical Storm		0	0	180.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/29/2005	17:00	сѕт	Tropical Storm		0	0	80.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/07/2008	04:40	CST- 6	Strong Wind	40 kts. EG	0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	08/23/2008	12:00	CST- 6	Tropical Depression		0	0	5.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	03/28/2009	05:25	CST- 6	Strong Wind	35 kts. EG	0	0	15.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	04/13/2009	01:30	CST- 6	Strong Wind	35 kts. EG	0	0	20.00K	0.00K
<u>AUTAUGA</u> (ZONE)	AUTAUGA (ZONE)	AL	11/09/2009	14:00	CST- 6	Tropical Depression		0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	14:36	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	20:57	CST- 6	Strong Wind	39 kts. MG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
AUTAUGA (ZONE)	AUTAUGA (ZONE)	AL	09/05/2011	21:15	CST- 6	Strong Wind	39 kts. EG	0	0	2.00K	0.00K
Totals:								0	0	2.919M	100.00K

(Source: NOAA NCDC Storm Events Database)

0/unknown Sinkhole Events - 01/01/2003 thru 12/31/2013 (4018 days) (*Source: NOAA NCDC Storm Events Database/U.S. Geological Survey*) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013.

0/unknown Landslide Events - 01/01/2003 thru 12/31/2013 (4018 days) (*Source: NOAA NCDC Storm Events Database/U.S. Geological Survey*) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013. **0/unknown Earthquake Events** - 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database/U.S. Geological Survey/homefacts.com) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013.

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
Autauga	114	38	881.75	294	7.74

114 Wildfire Events – 1/1/2010 thru 12/31/2013 (Source: Alabama Forestry Commission)

0/Unknown Dam/Levee Failure Events - 01/01/2003 thru 12/31/2013 (4018 days) (Source: NOAA NCDC Storm Events Database/Local Input) No/unknown events occurred or were reported during 01/01/2003 thru 12/31/2013.

Table 5-15: To	0	- v	· · · ·	
	Number of	Probability of		
Natural Hazards	Historical	Future Annual	Extent	Area Affected
	Occurrences	Occurrence		
Thunderstorm	8	80%	>10%	Town wide
Lightning	0	0	0	Town wide
Hail	4	40%	5-10%	Town wide
Tornado	0	>10%	1-5%	Town wide
Flood/Flash Flood	5	50%	>10%	Town wide
Drought/Extreme Heat	32	>100%	>10%	Town wide
Winter Storm/Frost				
Freeze/Heavy Snow/	9	90%	>10%	Town wide
Ice Storm/Winter	9	90%	>1070	TOWIT WILLE
Weather/Extreme Cold				
Hurricane/Tropical				
Storm/Tropical	14	>100%	>10%	Town wide
Depression/High	14	>100%	>1070	TOWIT WILLE
Wind/Strong Wind				
Sinkhole/Expansive	0	0	0	Town wide
Soil	0	0	0	TOWIT WILLE
Landslide	0	0	0	Town wide
Earthquake	0	0	0	Town wide
Wildfire	114	> 1000/	> 100/	Town wide
(2010-2013 – 3 year study)	114	>100%	>10%	Town wide
Dam/Levee Failure	0	0	0	N/A

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 summary (Table 4-12). Zero or Unknown denotes there is no data available to determine the probability, extent, or affected area.

TABLE 5-16: Town of Billingsley Critical Facilities			
Governmental Services			
Town Hall		Administration	\$257,474
Billingsley Volunteer Fire Dept	261 County Road 37	Fire Fighting	\$1,310,048
Public Works			
Education			
Billingsley High School	2446 County Road 77	Education	\$12,417,280
Industrial			
Miscellaneous			
Community Center			\$824,481
Senior Center			\$99,719
		TOTAL	\$14,909,002
Source: Local Jurisdiction			

Table 5-17: Town of Billingsley						
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	0	0	0	\$46,625	\$50,821
Lightning	0	0	0	0	\$0	0
Hail	<1	0	0	0	\$2,000	\$2,180
Tornado	0	0	0	0	\$0	0
Flood/Flood	<1	0	0	0	\$0	0
Drought/Extreme Heat	3.2	0	0	0	\$0	0
Winter Weather/Frost Freeze/Heavy Snow/Ice Storm/Winter Weather/ Extreme Cold	<1	0	0	0	\$0	0
Hurricane/Tropical Storm/Tropical Depression/ High Wind/ Strong Wind	1.4	0	0	0	\$215,642	\$235,049
Sinkhole/Expansive Soil	0	0	0	0	\$0	0
Landslide	0	0	0	0	\$0	0
Earthquake	0	0	0	0	\$0	0
Wildfire (3 year study period)	38	0	0	0	\$14,696	\$16,019
Dam/Levee Failure	0	0	0	0	Unknown	Unknown
Sources: NOAA NCDC; U. S. Inflation Calculator/Consumer Price Index; Local Input; USDA Census of Agriculture; Alabama						

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. Projected loss expresses an estimated damage amount per future occurrence by converting the average loss figures from a midpoint of 2008 dollars to 2014 dollars (\$1 in 2008 = \$1.09 in 2014...a cumulative rate of inflation of 9%). Zero and Unknown denote there is no data available to determine the average occurrences, average loss or projected loss per event.

Town of Billingsley Mitigation Action Plan

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

Mitigation Status

The current statuses of the proposed actions are shown under Benchmark. **Table 5-17** shows the Town of Billingsley mitigation actions for the 2015 plan revision.

Table 5-18: Town of Billingsley Mitigation Actions			
Mitigation Action	Development of community shelters.		
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.		
Hazard(s) Addressed	All		
Applies to new/existing asset	New and existing		
Local Planning Mechanism	Municipalities; County; Autauga EMA		
Time frame for Completion	Within 3-5 years and continuous		
Estimated Cost	\$100,000 each		
Funding Sources	Local and Grants		
Priority	High		
Benchmark	The county will continue the effort to install community safe rooms should funds		
Mitigation Action	Encourage, promote, and fund all critical facilities to be equipped or retrofitted for back-up power.		
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.		
Hazard(s) Addressed	All		
Applies to new/existing asset	New and existing		
Local Planning Mechanism	Autauga EMA; Municipalities; County		
Time frame for Completion	Within 3-5 years and continuous		
Estimated Cost	\$100,000 each		
Funding Sources	Local and Grants		
Priority	High		
Benchmark	The county has obtained generators for some critical facilities. They plan to		

Autauga County Fire Association

Autauga County Fire Association Action Plan

The Autauga County Fire Association recognizes the importance of Mitigation Planning and will incorporate mitigation planning in planning documents as they are revised or initiated.

Mitigation Status

In order to track the progress of identified actions, the Autauga County Fire Association's Mitigation Plan has been added to this plan update. **Table 5-18** shows the Autauga County Fire Association's mitigation actions.

BENCHMARKING:

Prior to this plan revision, no actions were listed for this organization; therefore, no benchmarking can be made.

Table 5-19: Autauga County Fire Association Mitigation Actions			
Mitigation Action	Construct storm retrofits to fire buildings		
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.		
Hazard(s) Addressed	All		
Applies to new/existing asset	Existing		
Local Planning Mechanism	Autauga County Fire Association		
Time frame for Completion	One year from funding availability		
Estimated Cost	\$500,000 each		
Funding Sources	Grants, local		
Priority	Low		
Benchmark	New Action		
Mitigation Action	Construct/install community safe rooms at fire buildings to include generators		
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.		
Hazard(s) Addressed	All		
Applies to new/existing asset	Existing		
Local Planning Mechanism	Autauga County Fire Association		
Time frame for Completion	One year from funding availability		
Estimated Cost	\$250,000 each		
Funding Sources	Grants, local		
Priority	Medium		
Benchmark	New Action		

Mitigation Action	Construct/install individual storm shelters at fire buildings	
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.	
Hazard(s) Addressed	All	
Applies to new/existing asset	Existing	
Local Planning Mechanism	Autauga County Fire Association	
Time frame for Completion	One year from funding availability	
Estimated Cost	\$100,000 each	
Funding Sources	Grants, local	
Priority	Low	
Benchmark	New Action	
Mitigation Action	Provide generators for fire buildings	
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.	
Hazard(s) Addressed	All	
Applies to new/existing asset	Existing	
Local Planning Mechanism	Autauga County Fire Association	
Time frame for Completion	One year from funding availability	
Estimated Cost	\$80,000 each	
Funding Sources	Grants, local	
Priority	High	
Benchmark	New Action	

Autauga County Board of Education

Autauga County Board of Education Action Plan

The Autauga County Board of Education recognizes the importance of Mitigation Planning and will incorporate mitigation planning in planning documents as they are revised or initiated.

Mitigation Status

In order to track the progress of identified actions, the Autauga County Board of Education's Mitigation Plan has been added to this plan update. **Table 5-19** shows the Autauga County Board of Education's mitigation actions.

BENCHMARKING:

Prior to this plan revision, no actions were listed for this organization; therefore, no benchmarking can be made.

Table 5-20: Autauga County BOE Mitigation Actions			
Mitigation Action	Construct storm retrofits to educational buildings		
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.		
Hazard(s) Addressed	All		
Applies to new/existing asset	Existing		
Local Planning Mechanism	Autauga Co. EMA, BOE, County Commission		
Time frame for Completion	5 years		
Estimated Cost	\$1,000,000		
Funding Sources	Grant and Local		
Priority	Medium		
Benchmark	New Action		
Mitigation Action	Construct/install community safe rooms at educational buildings to include generators		
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.		
Hazard(s) Addressed	Tornados		
Applies to new/existing asset	Existing		
Local Planning Mechanism	Autauga Co. EMA, BOE, County Commission		
Time frame for Completion	5 years		
Estimated Cost	\$125,000 per safe room		
Funding Sources	Grant and Local		
Priority	Medium		
Benchmark	New Action		

Mitigation Action	Provide generators for educational buildings		
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.		
Hazard(s) Addressed	All		
Applies to new/existing asset	Existing		
Local Planning Mechanism	Autauga Co. EMA, BOE, County Commission		
Time frame for Completion	3 years		
Estimated Cost	\$50,000 each		
Funding Sources	Grant and Local		
Priority	Medium		
Benchmark	New Action		

Prattville Baptist Hospital

Prattville Baptist Hospital Action Plan

The Prattville Baptist Hospital recognizes the importance of Mitigation Planning and will incorporate mitigation planning in planning documents as they are revised or initiated.

Mitigation Status

In order to track the progress of identified actions, the Prattville Baptist Hospital's Mitigation Plan has been added to this plan update. **Table 5-20** shows the Prattville Baptist Hospital's mitigation actions.

BENCHMARKING:

Prior to this plan revision, no actions were listed for this organization; therefore, no benchmarking can be made.

Table 5-21:	Prattville Baptist Hospital Mitigation Actions
Mitigation Action	Construct storm retrofits to medical buildings
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	Existing
Local Planning Mechanism	Hospital
Time frame for Completion	3 years from grant award
Estimated Cost	\$1,000,000
Funding Sources	Grants
Priority	High
Benchmark	New Action
Mitigation Action	Install security measures at Prattville Baptist Hospital facilities
Goal	Protect the citizens of Autauga County as well as public and private property from the impacts of natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	Existing
Local Planning Mechanism	Hospital
Time frame for Completion	3 years from funding
Estimated Cost	\$500,000
Funding Sources	Hospital
Priority	High
Benchmark	New Action

Mitigation Action	Provide generators for medical buildings
Goal	Improve emergency services and capabilities in Autauga County to protect citizens from natural hazards.
Hazard(s) Addressed	All
Applies to new/existing asset	Existing
Local Planning Mechanism	Hospital; County; Municipalities
Time frame for Completion	2020
Estimated Cost	Up to \$35,000 each
Funding Sources	HMGP, Hospital
Priority	High
Benchmark	New Action

Section Six: Mitigation Plan Maintenance

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 Autauga County EMA Director. Local governments may submit a formal letter to the Autauga County EMA Director or the Chairman of the Autauga 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 Autauga County EMA Director or the Chairman of the Autauga 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 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 the minimum, the Hazard Mitigation Planning Committee will meet on an annual basis to monitor, evaluate, and amend this plan. The meetings will be publicized well in advance so the public can attend. Public participation is encouraged to allow the public an opportunity to participate in the process. The Hazard Mitigation Planning Committee will 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

The EMA Director 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 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.

Regular plan monitoring will be achieved through the County EMA's efforts to track mitigation activities. The EMA Director 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 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 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. Following the two-week deadline, the EMA Director will consolidate the survey forms and act upon the findings as needed and in the methods described below.

The County EMA will conduct an annual evaluation of the plan, reconvening the committee only if additional information is available or the EMA Director requires assistance. The EMA Director 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. 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.

Incorporation into Existing Planning Mechanisms

The Autauga County Hazard Mitigation Plan is incorporated into the current Autauga County Emergency Operations Plan that is administered by the Autauga County Emergency Management Agency.

Incorporation of the hazard mitigation plan will vary for each jurisdiction based an 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.

Continued Public Participation

The plan will be available for the public to view at the Autauga County Emergency Operations Center. Written comments regarding the plan can be made to the Autauga County EMA Director.

During the past five years, the Autauga County EMA did not hold any annual update meetings. Plan monitoring, evaluation, and amending will be conducted and documented differently in the next five years.

APPENDIX I Adopting Resolutions

SID THOMPSON	DISTRICT 1
JOHN THRAILKILL	DISTRICT 2
VAN SMITH	DISTRICT 3
MARSHALL REESE	DISTRICT 4
CARL JOHNSON	DISTRICT 5



STEVEN T. GOLSAN......ASST. TREASURER/ADM. AUDRA H. SMITHASST. TREASURER/ADM. JOHN MARK DAVIS.....COUNTY ENGINEER J. ROBERT FAULK....COUNTY ATTORNEY

Autauga County Commission

CARL JOHNSON, CHAIRMAN 135 N. Court Street, Suite B Prattville, Alabama 36067 Phone: 358-6700 Fax: 361-3724

RESOLUTION #2016-1 APPROVAL & IMPLEMENTATION

The purpose of hazard mitigation is to implement action that eliminate the risk from hazards, or reduce the severity 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 Autauga County Commission or Director of the Autauga County Emergency Management Agency.

The Autauga County 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 Autauga County, and was developed in a joint and cooperative venture by members of the Autauga County Hazard Mitigation Planning.

Autauga 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. Autauga 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 Autauga 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 Autauga 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 Autauga County, Alabama.

Jan 2016

Date

Ernie Baggett, Director Autauga County Emergency Management Agency

RESOLUTION

[To Adopt the Revised Autauga County Hazard Mitigation Plan.]

WHEREAS, The Federal Disaster Mitigation Act of 2000 requires the development and adoption of a county-wide hazard mitigation plan; and

WHEREAS, a current county hazard mitigation plan is a condition for applying for certain Federal disaster assistance; and

WHEREAS, in 2005, the Autauga County Hazard Mitigation Committee developed a hazard mitigation plan, which was subsequently adopted by all Autauga County governments and approved by FEMA; and

WHEREAS, the Autauga County Emergency Management Agency is required to update the hazard mitigation plan every 5 years to maintain eligibility for disaster assistance programs; and

WHEREAS, in 2009, the Autauga County Emergency Management Agency revised and updated the Autauga County hazards mitigation plan, which was adopted by the City Council of the City of Prattville in Resolution Book 2009-A, Page 067; and

WHEREAS, the Autauga County hazard mitigation plan has again been updated and revised in accordance with 44 CFR 201.6; and

WHEREAS, City of Prattville staff participated in its creation and have reviewed the revised plan, and

WHEREAS, City of Prattville citizens were afforded an opportunity to comment and provide input on the revised plan.

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Prattville that the updated Autauga County Hazard Mitigation Plan is hereby adopted and endorsed.

ADOPTED THIS 19TH DAY OF JANUARY, 2016.

Willie Z. Work By: Willie L. Wood, Jr., President Prattville City Council

AUTHENTICATED THIS 19TH DAY OF JANUARY, 2016.

Cathy Di Clanson By: Cathy Dickerson

City Clerk

APPROVED:

By: Bill Gillespie dr. Mayor

RESOLUTION BOOK 2016, PAGE 015

County of Autauga

2015 Autauga County Hazard Mitigation Plan Update

Resolution of Adoption RESOLUTION #2016-1

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

WHEREAS, the County of Autauga participated in the updating of a multijurisdictional plan, Autauga County Hazard Mitigation Plan; and

WHEREAS, the County of Autauga 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 Autauga 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 Autauga adopts the 2015 Autauga County Hazard Mitigation Plan Update, and resolves to execute the actions in the plan.

ADOPTED, this $5^{\tau\tau}$ day of $\hat{J}\theta$ at the meeting of the County

Commission.

Chairman, Autauga County Commission

Town of Autaugaville

2015 Autauga County Hazard Mitigation Plan Update

Resolution of Adoption

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

WHEREAS, the Town of Autaugaville participated in the updating of a multijurisdictional plan, Autauga County Hazard Mitigation Plan; and

WHEREAS, the Town of Autaugaville 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 Autaugaville 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 Autaugaville adopts the 2015 Autauga County Hazard Mitigation Plan Update, and resolves to execute the actions in the plan.

ADOPTED, this 5 day of FEB, 2016 at the meeting of the City

Council.

Curto Standerice Mayor, Town of Autaugaville

Town of Billingsley

2015 Autauga County Hazard Mitigation Plan Update

Resolution of Adoption

WHEREAS, the Autauga County Hazard Mitigation Plan has been updated in

accordance with FEMA requirements at 44 C.F.R. 201.6; and

WHEREAS, the Town of Billingsley participated in the updating of a multijurisdictional plan, Autauga County Hazard Mitigation Plan; and

WHEREAS, the Town of Billingsley 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 Billingsley 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 Billingsley adopts the 2015 Autauga County Hazard Mitigation Plan Update, and resolves to execute the actions in the plan.

ADOPTED, this $\underline{3}$ day of \underline{F} , 2016 at the meeting of the Town

Council.

Mayor, Town of Billingsley

Autauga County Board of Education 2015 Autauga County Hazard Mitigation Plan Update **Resolution of Adoption**

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

WHEREAS, the Autauga County Board of Education participated in the updating of a multi-jurisdictional plan, Autauga County Hazard Mitigation Plan; and

WHEREAS, the Autauga County Board of Education 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 Autauga County Board of Education 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 Board that the Autauga County Board of Education adopts the 2015 Autauga County Hazard Mitigation Plan Update, and resolves to execute the actions in the plan.

ADOPTED, this 4th day of February, 2016 at the meeting of the Autauga County Board of Education.

Superintendent, Autauga County Board of Education

Autauga County Fire Association

2015 Autauga County Hazard Mitigation Plan Update

Resolution of Adoption

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

WHEREAS, the Autauga County Fire Association participated in the updating of a multi-jurisdictional plan, Autauga County Hazard Mitigation Plan; and

WHEREAS, the Autauga County Fire Association 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 Autauga County Fire Association 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 President that the Autauga County Fire Association adopts the 2015 Autauga County Hazard Mitigation Plan Update, and resolves to execute the actions in the plan.

ADOPTED, this 19th day of Fighting, 2016 at the meeting of the Autauga County Fire Association.

President, Autauga County Fire Association

Prattville Baptist Hospital 2015 Autauga County Hazard Mitigation Plan Update Resolution of Adoption

WHEREAS, the Autauga County Hazard Mitigation Plan has been updated in

accordance with FEMA requirements at 44 C.F.R. 201.6; and

WHEREAS, the Prattville Baptist Hospital participated in the updating of a multijurisdictional plan, Autauga County Hazard Mitigation Plan; and

WHEREAS, the Prattville Baptist Hospital 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 Prattville Baptist Hospital 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 <u>Herin (20</u> that the Prattville Baptist Hospital adopts the 2015 Autauga County Hazard Mitigation Plan Update, and resolves to execute the actions in the plan.

ADOPTED, this $\underline{\partial \Psi}$ day of <u>February</u>, 2016 at the meeting of the Prattville Baptist Hospital.

Prattville Baptist Hospital