

SECTION 2

Local Natural Risk and Vulnerability

Summary of Plan Updates

Section		Changes
Sec 2, I	Identification of Hazards Flooding	Added Jurisdictional Table
Sec 2, I	Identification of Hazards Flooding	Added Plan Accomplishments Updated Flood Data
Sec. 2, I	Vulnerability Assessment	Updated Data
Sec 2, I	Damage Assessment	Updated Damage Assessment Data
Sec 2, I	Land Use & Development Trends	Updated NFIP and CRS Data and Statistics
Sec 2, I	Hazard Summary	Added Additional Flood Event Data
Sec 2, II	Tornadoes Vulnerability Assessment	Updated Assets Potentially Vulnerable to Tornadoes
Sec 2, II	Hazard Summary	Added Tornado Event Data
Sec 2, III	Vulnerability Assessment	Updates Assets Potentially Vulnerable to Severe Thunderstorms
Sec 2, III	Damage Assessment	Updated Damage Assessment Data
Sec 2, III	Hazard Summary	Updated Severe Storm Events
Sec 2, IV	Winter Storms/Damage Assessment	Updated Winter Storm Damages Data
Sec 2, IV	Hazard Summary	Updated Winter Storm Event Data
Sec 2, V	Hazard Summary	Updated Drought Event Data

The Mitigation Planning Committee conducted a comprehensive hazard, risk and vulnerability assessment of Fayette County. The assessment will form the basis for the plan. The assessment includes the following components for each hazard.

Critical Facilities: These will be defined as facilities that include fire and police stations, 911 Communication Centers, water treatment facilities, city halls and courthouses, public works facilities, and schools that are critical to the continuity of Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks and Woolsey government and economy. These facilities if damaged or destroyed would have an impact on the delivery of public safety and governmental services to the public. The loss of all or part of these facilities would also have a devastating effect on the economy, response capabilities, and the well-being of Fayette County and its citizens.

Hazard Identification: The Hazard Mitigation Planning Committee has identified five natural and three technological hazards that have consistently affected Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey. These hazards were identified by using statistical data and records from a variety of sources including presidential disaster declarations, maps, and hazardous materials response data. The list of hazards are based upon frequency, severity, probability, potential loss and vulnerability, and large scale affects on Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks and Woolsey. These hazards are based upon and are similar to those found in the State of Georgia Hazard Mitigation Plan.

Ga. State Plan Hazards	Hazard	Jurisdiction Effected	Vulnerability
Tornado	Tornado	Unincorporated Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, Woolsey	High
Inland Flooding	Flooding	Peachtree City	High
Severe Weather/Wind	Thunderstorms	Unincorporated Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, Woolsey	High
Drought	Drought	Unincorporated Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, Woolsey	Medium
Dam Failure	Dam failure	Unincorporated Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, Woolsey	Medium
Severe Winter Storms	Winter Storm	Unincorporated Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, Woolsey	Medium
	Technological Hazards Hazardous materials	Unincorporated Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, Woolsey	Low
Wildfire		Not a Threat	
Tropical Cyclone Event		Covered Under Thunderstorms and Tornadoes	
Heat		Not a Threat	
Earthquake		Not a Threat	
Coastal Flooding		Fayette in not in a Coastal Area	
Sinkhole		Not a Threat	
Landslide		Not a Threat	

Definitions

High

A high probability of occurrence and damage, regular occurrence greater than 10% of Jurisdiction.

Medium

A moderate probability of occurrence and damage 5-10% of jurisdiction.

Low

A slight chance of occurrence and damage less than 5% of jurisdiction.

Profile of Hazards

Each hazard will be profiled as to how it will or has affected Fayette County. This will include areas prone to specific hazards and the effects that they have had on Fayette County infrastructure.

Vulnerability Assessment

The plan compares and identified hazards with the inventory of affected critical facilities and the effects on the population that is exposed to each hazard. This section will also include vulnerability assessment for development such as schools, water and waste treatment facilities and other critical infrastructure.

Damage Assessment

This component of the plan will estimate the damage and loss projections in a geographical area of Fayette County based on the disaster. The information in the Damage Assessment section was derived from a combination of Critical Facility information and data from the Fayette County Tax Assessors Office by multiplying the structure replacement cost by the percent of expected damage.

As of 2015

Structure Type	Number of Structures	100% Value	75% Value	50% Value	25% Value
Residential	39,131	\$7,785,046,438	\$5,838,784,828	\$3,892,523,219	\$1,946,261,609
Commercial	1,618	\$1,455,473,593	\$1,091,605,194	\$727,736,796	\$363,868,398
Industrial	485	\$371,795,173	\$278,846,379	\$185,897,586	\$92,948,793
Agricultural	393	\$166,070,540	\$124,552,905	\$83,035,270	\$41,517,635
Religious/Non-Profit	202	\$205,330,415	\$153,997,811	\$102,665,208	\$51,332,604
Government/Public Property	522	\$289,586,225	\$217,189,669	\$144,793,113	\$72,396,556
Educational	45	\$286,745,993	\$215,059,494	\$143,372,996	\$71,686,498

Land Use Plans and Development Trends: This component of the plan will identify land use trends, the county's land use and development plans, and reference current plans and regulations are in place in Fayette County regarding land use plans and trends that could prevent the impact of the disaster.

Multi-Jurisdictional Concerns

Multi-jurisdictional concerns will explain what geographic areas will be affected by the particular disaster.

Hazard Summary

The Hazard Summary will summarize the findings of the particular hazard.

Identification of Natural Hazards

The Fayette County Disaster Mitigation Planning Committee collected data related to all natural hazards that have historically affected the county. The types of events, which were determined to have a significant impact included, tornadoes, floods, thunderstorms, winter storms, drought, dam failure, wildfire, technological hazards, and are consistent with the state of Georgia Mitigation Plan.

I. Flooding

Plan Accomplishments 2010-2015

The 2010 Fayette County Disaster Mitigation Plan served as an excellent blue print that identified areas of the county that were potential flood mitigation projects. Fayette County, the City of Fayetteville, and Peachtree City have been successful in eliminating several areas of repetitive flood prone areas. These projects were paid for by applying for and receiving hazard mitigation grants through the Georgia Emergency Management Agency and the Federal Emergency Management Agency and has significantly reduced suffering and hardship in several areas of the community. These areas have been removed from the plan and for reference are listed below.

- * Home Acquisition and Demolition Unincorporated Fayette County Completed 2010
- * Pye Lake Drainage Project-Drainage project to eliminate flooding to homes in the area Completed 2010
- * Brittney Way road flooding and overtopping
- * Kirkley Rd flood and road failure repair
- * Conducted existing and future flood studies of all 100 acre and great drainage basins (380 stream miles)
- * Reduction in the number of repetitive flooding loss
- * Reclassified as a Class 6 Community Rating System

Additionally Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks and Woolsey all participate and are currently in compliance with the National Flood Insurance Program and Fayette County was recently recertified (October 2014) by the FEMA Community Rating System and as a rating of 6 partly as a result of our participation in the Disaster Mitigation Plan program. See Section 14, Appendix G, NFIP Community Rating System Class 6 Confirmation Letter Dated 2014

Hazard Identification-Severe storms and torrential rains cause flooding of rivers and streams, including flooding within Special Flood Hazard Areas (SFHA). SFHAs may include the 100-year flood plain, flooding associated with manmade structures, low-lying areas, or other areas that are designated as having potential flood risks. A 100- year flood plain is the area that has a 1% chance of being flooded in a given year. Though hydrologic and hydraulic modeling of the 100 year flood event, a Base Flood Elevation (BFE) can be determined. This BFE allows local Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey to insure homes are built above the modeled 100-year flood event. These storms and flooding can be due to large, slow-moving low-pressure systems that bring in extremely humid air triggering days of intense rainfall. This effect was seen most recently in September 2009 when this type of weather system was estimated by the U.G. Geological Survey to be a 500-year flood. Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey suffered no affects from the event. Flooding can also be a result of tropical storms and hurricanes moving inland across Georgia.

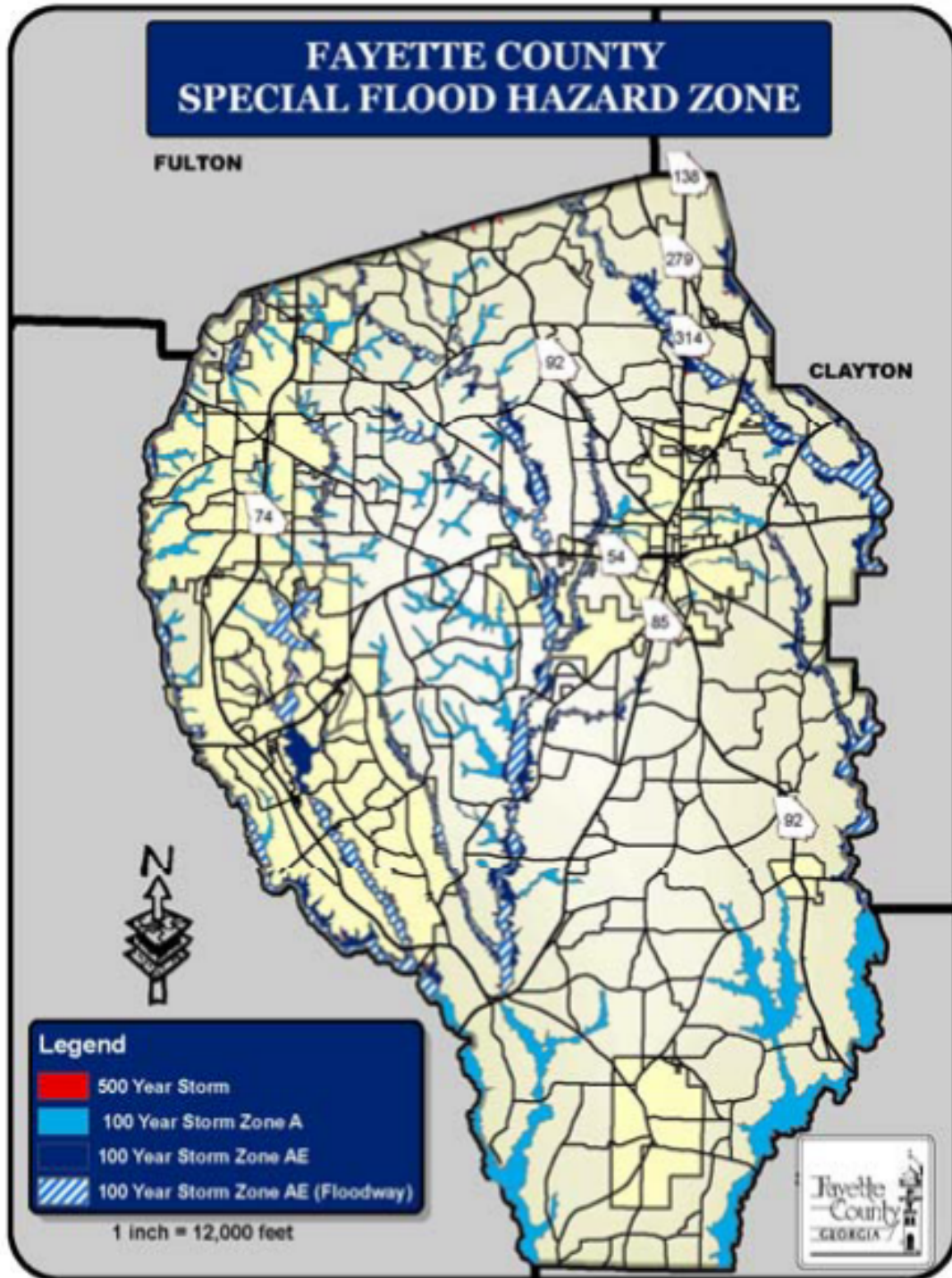
Different variables impact flooding. Topography, ground saturation, previous rainfall, soil types, drainage basin size, drainage patterns of streams, and vegetative cover are all variables that can determine flooding severity. For instance, Georgia's red clay impermeability inhibits ground water recharge in the state's Piedmont area increasing the amount of storm water runoff.

Significant rainfall events can take their toll on Fayette County's many dam structures. Dam failure caused by flooding may occur slowly or become a flash flood, such as in the case of a dam failure. The potential failure of a dam caused by a combination of weathering, sedimentation, mechanical changes, and chemical agents can impact a dam's integrity and flood control capabilities resulting in sudden loss of life and property for those living downstream.

The Fayette County Hazard Mitigation Committee researched historical data from the National Weather Service, National Climatic Data Center, Georgia Department of Natural Resources, GEMA, local newspapers, and interviews during its research on the effects of floods in Fayette County. After extensive research, the Committee was unable to locate any accurate data regarding flooding events prior to 1980. The *Significant Flood Events in Fayette County* table was updated to include all rainfall events to this Plans publication.

Hazard Profile - There have been 18 significant flooding events on record at the National Climatic Data Center for Fayette County in the past t w e n t y years. The floods that struck Georgia in 1994 as a result of Tropical Storm Alberto resulted in damages to property totaling \$30 million. There was one fatality recorded as a result of this event. Due to mitigation activities, there is a less than 20% that some flooding will occur in Fayette County.

The latest significant flooding event on record (which has remained the same since the 2010 update) resulted from repetitive tropical storms moving inland during June and July 2005, mainly Hurricane Dennis following Hurricane Cindy within four days. During Tropical Storm Cindy, an 18-year old male was swept to his death in a flooded drainage ditch in Peachtree City near the Tinsley Mills condominium complex just east of the intersection of Georgia Highways 54 and 74. Many rivers and creeks in that area rose above flood stage, which is 790 feet above sea level. In several cases, record or near record flood stages were observed only during previous tropical storm/hurricane events, namely Tropical Storm Alberto in July 1994 and Hurricanes Ivan and Jeanne in September 2004. Many areas of the county had seen up to 15 inches of rain since the beginning of the month.



FAYETTE COUNTY 100 & 500 YEAR FLOOD PLAIN MAP BY JURISDICTION

Vulnerability Assessment – Vulnerability Assessment – Fayette County Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey strictly enforces ordinances that directly impact development within flood prone areas. Since 1986, the Watershed Protection Ordinance imposes buffer and building setbacks along the Special Flood Hazard Areas. Also, the county recently amended their Floodplain Management Ordinance that minimizes public and private losses in special flood hazard areas by way of restricting development within or altering these areas. The map above includes 100 & 500-year flood data including Zones A and AE data from Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey.

Due to these protective measures there are relatively few assets within Fayette County that are exposed to flooding hazards. Currently there are 768 commercial and residential facilities located with Special Flood Hazard Area. This includes religious and non-profit facilities as well. Only one (1) educational building exists within the SFHA. There are no government-owned buildings or public utilities located within the FEMA designated Special Flood Hazard Area. These numbers were generated from 2006 LIDAR data and the newly adopted FEMA digitized FIRM panels (October 26, 2008).

Catastrophic Flooding All Areas of Fayette County 2015

Structure Type	Number of Structures	100% Value	75% Value	50% Value	25% Value
Residential	39,131	\$7,785,046,438	\$5,838,784,828	\$3,892,523,219	\$1,946,261,609
Commercial	1,618	\$1,455,473,593	\$1,091,605,194	\$727,736,796	\$363,868,398
Industrial	485	\$371,795,173	\$278,846,379	\$185,897,586	\$92,948,793
Agricultural	393	\$166,070,540	\$124,552,905	\$83,035,270	\$41,517,635
Religious/Non-Profit	202	\$205,330,415	\$153,997,811	\$102,665,208	\$51,332,604
Government/Public Property	522	\$289,586,225	\$217,189,669	\$144,793,113	\$72,396,556
Educational	45	\$286,745,993	\$215,059,494	\$143,372,996	\$71,686,498

Assets Exposed to Hazard – Due to the incorporation of the 2005 and 2010 Disaster Mitigation plan known flood prone areas have been reduced through grant funding and corrective actions identified in the plan. According to the data supplied to Fayette County Environmental Services Management, unincorporated Fayette County has 16 structures that are documented as repetitive losses. Repetitive Loss is define as flood-related damage sustained by a structure on two separate occasions during a 10-year period where the cost of repairs at the time of each such flood event, on the average, equaled or exceeded 25 percent of the market value of the structure before the damage occurred. Peachtree City has four repetitive losses namely along Cherry Branch in the Tinsley Mill Condominium Complex in Peachtree City. The City of Fayetteville has two repetitive losses, and finally Tyrone has two repetitive losses. This data was collected from Fayette County, Peachtree City, Fayetteville, Tyrone, and the Fayette County Tax Assessors Office and from information supplied from the Federal Emergency Management Agency and the Georgia State National Flood Insurance Program Coordinator. Extensive aerial photograph was incorporated to outline the flood plain in the area and tax identification numbers are used to identify assets that are exposed to flooding hazard. There are not identified or repetitive flood losses in Brooks or Woolsey. A complete list of

structures in designated floodplains and values are located in is listed in Section 8, Appendix A. Floodplain GIS Maps and Structure Values by Jurisdiction

Repetitive Flood Loss by Jurisdiction
Source: Fayette County, Peachtree City, Fayetteville, Tyrone, FEMA

Address Line 2	City	ST	Zip Code	Date of Loss	Total
BRIDGER POINT RD	FAYETTE CO.	GA	302155213	07/11/2005	\$4,907.00
MISTY FOREST DR	FAYETTE CO.	GA	302155072	07/06/2005	\$0.00
MORNING CREEK LN	FAYETTE CO.	GA	302140000	07/0511994	\$1,476.00
RALSTON CT	FAYETTE CO	GA	302152543	05/04/2002	\$1,763.00
ST ANDREWS DR	FAYETTE CO.	GA	302152740	07/11/2005	\$11,784.00
ST ANDREWS DR	FAYETTE CO.	GA	302152740	02/2811997	\$1,862.00
OLD SOUTH CT	FAYETTE CO.	GA	302155093	09/28/1997	\$9,535.00
CARROLLS WAY	FAYETTE CO.	GA	302152929	02/10/1995	\$0.00
CARROLLS WAY	FAYETTE CO.	GA	302152929	10/0411995	\$0.00
CARROLLS WAY	FAYETTE CO.	GA	302152929	02/28/1997	\$21,567.00
BRAMAR RD	FAYETTEVILLE	GA	302140000	03/08/1998	\$635.00
BRAMAR RD	FAYETTEVILLE	GA	302140000	02/10/1995	\$2,465.00
CARROLLS WAY	FAYETTE CO.	GA	302152929	07/11/2005	\$134,800.00
CARROLLS WAY	FAYETTE CO.	GA	302152929	03/06/2003	\$0.00
DOGWOOD TRL	TYRONE	GA	302902909	07/11/2005	\$8,987.00
DOGWOOD TRL	TYRONE	GA	302902909	07/05/1994	\$3,143.00
				TOTAL	\$202,924.00

Damage Assessment – The extent of each flood varies according to the amount of rainfall in a given area. If a complete loss of those properties located within flood zones in Fayette County would result in \$320,586,740 in damages assuming 100% loss, a 75% loss would represent \$240,440,005, a 50% loss would represent \$160,293,370, a 25% loss would \$80,146,680. Damage assessment values for structures located in designated flood plains is located in Section 8, Appendix A, Floodplain GIS Maps and Structure Values by Jurisdiction
Source: Fayette County Tax Assessors Office and Fayette County Environmental Management

Special Note: All structure listed below have been identified in the flood plain as identified by prior flooding events, federal flood plain maps or Fayette County or municipal maps. Not all structures that have been identified and listed have or will experience damage from floods. Further studies including professional surveys would have to be conducted to determine exactly which structures are at consistent risk from flooding. Some structures listed below have had some structural damage as a result of flooding in the past 20 years.

Land Use & Development Trends - Fayette County has and continues to make significant efforts to eliminate the placement of structures identified in flood hazard areas. Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey all participate in the National Flood Insurance Program (NFIP). Unincorporated Fayette County recently received a Federal Community Rating System score of 6 (effective Oct 2014) during the 2013 CRS audit. The new ranking was achieved by conducting floodplain management education and enforcing of the County's Watershed Management Ordinance. Only four other Georgia counties have attained this high CRS ranking. From 2005 to 2008 Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey amended their Floodplain Management Ordinances that limits development and filling in Special Flood Hazards areas and assigns strict standards for further encroachments in both the present and future conditions Special Flood Hazard Areas.

In October 2008 (this ordinance was updated in 2015) all of Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey adopted the Metropolitan North Georgia Water Planning District Floodplain Management Model Ordinance that requires the grater condition of the following, construction above the 3 foot base flood elevation or 1 ft. above the future base flood elevation minimizes storm water runoff that impacts flooding. These ordinances were updated in 2015 and are incorporated in to the land use plans of Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey to reduce or eliminate flooding of future development in the County. See Section 9, Appendix B Land Use and Development Maps by Jurisdiction.

Multi-Jurisdictional Concerns – Statistically and historically unincorporated Fayette County is more at risk from flooding. Peachtree City would be next and then Fayetteville, and Tyrone respectively. There are no known flood area in Brooks and Woolsey. There are many areas throughout the county where localized flooding has been an issue (due to flash floods). There are also rivers and streams throughout the entire county. All mitigation efforts will focus on countywide improvements in Fayette County, Peachtree City, Fayetteville, and Tyrone, Brooks and Woolsey.

Hazard Summary – Floods do not pose a significant threat in Fayette County. The Hazard Mitigation Planning Committee has identified mitigation efforts related to flooding. Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey have worked hard to mitigate the loss of life and property in our community from flood hazards and those efforts are proving beneficial by a reduction in flooding incidents. This has been accomplished by taking a countywide approach to code enforcement and seeking mitigation grant funding to reduce flood hazards. Flood mitigation goals & objectives are located in Section 4,

Significant Floods Events in Fayette County

<i>Georgia</i>								
Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 FAYETTE	07/05/1994	0100	Flood	N/A	0	0	50K	0
2 Woolsey	10/04/1995	0100	Flash Flood	N/A	0	0	0	0
3 Countywide	01/27/1996	12:30 AM	Flash Flood	N/A	0	0	0	0
4 Fayetteville	02/27/1997	10:00 PM	Flood	N/A	0	0	0	0
5 Peachtree City	06/03/1999	09:00 AM	Urban/sml Stream Fld	N/A	0	0	0	0
6 Countywide	07/31/2000	04:30 PM	Urban/sml Stream Fld	N/A	0	0	0	0
7 Fayetteville	10/06/2002	10:45 PM	Urban/sml Stream Fld	N/A	0	0	15K	0
8 Countywide	03/20/2003	02:00 AM	Flash Flood	N/A	0	0	0	0
9 Countywide	05/07/2003	07:15 PM	Flash Flood	N/A	0	0	0	0
10 Fayetteville	06/17/2003	03:45 AM	Flash Flood	N/A	0	0	600K	0
11 Countywide	09/06/2004	09:00 PM	Flood	N/A	0	0	57K	0
12 Countywide	09/16/2004	03:46 PM	Flash Flood	N/A	0	0	25K	0
13 Countywide	03/27/2005	01:00 PM	Flood	N/A	0	0	0	0
14 Fayetteville	06/05/2005	04:50 PM	Flood	N/A	0	0	225K	0
15 Countywide	07/06/2005	07:00 PM	Flood	N/A	0	0	25K	0
16 Peachtree City	07/06/2005	08:00 PM	Flash Flood	N/A	1	0	163K	0
17 Countywide	07/10/2005	11:00 PM	Flood	N/A	0	0	665K	0
18 Countywide	07/11/2005	03:00 AM	Flash Flood	N/A	0	0	300K	0
TOTALS:					1	0	2.125M	0

There has not been a significant flooding event since July 11, 2005. Areas that would have flooded prior to the implementation of mitigation projects to eliminate the situation.

II. Tornadoes

Hazard Identification - Violent whirling wind accompanied by a funnel-shaped cloud is classified as a tornado. Severe weather conditions, such as a thunderstorm or hurricane, can produce a tornado. The extension may be up to 50 miles and move at speeds of 10 to 50 miles per hour. Through combined action of strong rotary winds and the impact of wind-born debris destruction occurs. The official tornado season begins in March and continues through August, but may occur at any given time. The Fayette County Hazard Mitigation Planning Committee researched historical data from the National Weather Service, National Climatic Data Center, Georgia Tornado Database, local newspapers, and interviews during its research on the effects of tornadoes on Fayette County.

Hazard Profile - Eight tornadoes have been recorded since statistical data has been recorded in Fayette County. The county has experienced eight tornados in the last 30 years. Fortunately, these tornadoes have resulted in minimal damage. The Committee conducted an analysis of tornado activity in Fayette County. The analysis divided the number of number of tornadoes that have occurred since 1980 to 2015. The analysis shows that a tornado will touch down and cause damage in Fayette County every 4.3 years. The reported tornadoes have ranged from F0 to F3 in extent.

Vulnerability Assessment - All assets within Fayette County are exposed to the hazards of tornados. As of 2015 there are currently 39131 residential properties, 1,618 commercial properties, 485 office & industrial facilities, 202 religious and non-profit institutional facilities, 522 government owned buildings, 393 agricultural, 45 educational, and 8 public utilities that have been identified as vulnerable to tornadoes.

This constitutes all of the properties in Fayette County. Tornadoes in Fayette County have not followed a particular path. All structures and critical infrastructure is susceptible to damage from tornados.

Assets Exposed to Hazard - All of Fayette County is susceptible to tornadoes as they are unpredictable in nature and do not follow any given pattern.

Damage Assessment - Because all facilities within the county are subject to potential losses via tornadoes, estimations were done assuming 25%, 50%, 75%, and 100%.

Use & Development Trends - Continued development in Fayette County will result in an increase in the potential for damage from tornados. Fayette County Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey have a land use plan that clearly identifies future development. This land use plan and map is strictly adhered to by Fayette County. Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey Unincorporated Fayette County's future growth will continue to be residential in nature, be The Fayette County Building Department and Peachtree City, Fayetteville, Tyrone, (the Towns of Brooks and Woolsey are part of the Fayette County Building department) Building Departments enforce the 2012 International Building Code with the State of Georgia Amendments. The use and enforcement of these codes provides reasonable protection for existing and future construction from most natural hazards including tornados. Updating building codes and the adoption of these codes will reduce existing and future vulnerability and damage from

tornados. The elements are included in this plan. See Section 9, Appendix B, Land Use and Development Maps by Jurisdiction.

Tornado Vulnerability Assessment 2015

Structure Type	Number of Structures	100% Value	75% Value	50% Value	25% Value
Residential	39,131	\$7,785,046,438	\$5,838,784,828	\$3,892,523,219	\$1,946,261,609
Commercial	1,618	\$1,455,473,593	\$1,091,605,194	\$727,736,796	\$363,868,398
Industrial	485	\$371,795,173	\$278,846,379	\$185,897,586	\$92,948,793
Agricultural	393	\$166,070,540	\$124,552,905	\$83,035,270	\$41,517,635
Religious/Non-Profit	202	\$205,330,415	\$153,997,811	\$102,665,208	\$51,332,604
Government/Public Property	522	\$289,586,225	\$217,189,669	\$144,793,113	\$72,396,556
Educational	45	\$286,745,993	\$215,059,494	\$143,372,996	\$71,686,498

Source: Fayette County Tax Assessors Office

Multi-Jurisdictional Concerns - There is not sufficient data to identify a preferred path that tornados seek in Fayette County. The cities of Peachtree City and Fayetteville will experience more damage, as they are the most densely developed areas of the county; however, all of Fayette County is vulnerable to the effects of a tornado. The data does show that unincorporated Fayette County has had five tornadoes, Fayetteville has had 2, and Tyrone has had 1 tornado, Unincorporated Fayette County has had 3 tornadoes Peachtree City, Brooks, and Woolsey have had no recorded tornadoes. These tornados have an average velocity scale of F1. All mitigation projects will consider a countywide approach. Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey use the 2012 International Building code and enforcement policy.

Hazard Summary - Fayette County has had minor history with tornado activity. For this reason, the identified mitigation projects are seen as a priority need especially for the protection of vulnerable populations. Tornado specific mitigation actions are provided in Section 4, Part II.

Tornado Events in Fayette County Georgia

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 FAYETTE	4/13/1980	1630	Tornado	F1	0	0	2.5M	0
2 FAYETTE	4/22/1984	1338	Tornado	F0	0	0	3K	0
3 Fayetteville	6/19/1998	12:07 PM	Funnel Cloud	N/A	0	0	0	0
TOTALS					0	0	2.503M	0

Tornado Events 2005 to 2010

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Fayette	07/06/2005	08:10 PM	Tornado	F0	0	0	2.0M	0
2 Tyrone	01/02/2006	04:56 PM	Tornado	F2	0	0	2.0M	0
3 Fayetteville	10/08/2008	15:35 PM	Tornado	F0	0	0	125K	0K
TOTALS					0	0	4.075M	0

Tornado Activity 2010-2015

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	50.00K	0.00K
WOOLSEY RUST ARPT	FAYETTE CO.	GA	12/22/2011	18:16	EST-5	Tornado	EF1	0	0	25.00K	0.00K
LEES MILL	FAYETTE CO.	GA	12/22/2011	18:18	EST-5	Tornado	EF0	0	0	25.00K	0.00K
Totals:								0	0	50.00K	0.00K

III. Severe Thunderstorms, Wind & Lightning

Hazard Identification - Thunderstorm winds tend to be short in duration involving straight-line winds and/or gusts in excess of 50 mph. By definition, all thunderstorms are accompanied by lightning. Lightning strikes are created from cloud to cloud, cloud to ground and ground to cloud. The Fayette County Hazard Mitigation Planning Committee researched data from the National Climatic Data Center and the National Weather Service for this hazard.

Hazard Profile - Thunderstorms are the most prevalent natural hazards in Fayette County. From 1970 to 2014 there has been 119 occurrences of thunderstorm winds and lightning. Fayette County is extremely vulnerable to severe thunderstorm that are accompanied by frequent lightning and straight line winds. These events, especially lightning are responsible for numerous fatalities and injuries and cause millions of dollars in property damages. These are mainly from lightning strikes and resulting structure fires. Frequency analysis shows that Fayette County will experience 2.7 events annually that affect our community with damaging winds and frequent lightning.

Vulnerability Assessment - All assets within Fayette County are exposed to the hazards of lightning. As of 2015 there are currently 39,131 residential properties, 1,618 commercial properties, 485 office & industrial facilities, 202 religious and non-profit institutional facilities, 522 government owned buildings, 393 agricultural, 45 educational, and 8 public utilities that have been identified as vulnerable to lightning. All assets within Fayette County are exposed to the hazards of severe thunderstorms. This constitutes all of the properties in Fayette County. Severe thunderstorms cause significant damage in Fayette County and have not followed a particular path. All structures and critical infrastructure is susceptible to damage from severe thunderstorms.

Assets Exposed to Hazards - There is no way to estimate the facilities most likely to be damaged by thunderstorm winds and lightning due to their widespread nature.

Damage Assessment - Because all facilities within the county are subject to potential losses via thunderstorm winds and lightning, estimations were done assuming 25%, 50%, 75%, and 100% damages.

Present Severe Thunderstorm Damage Assessment 2010

Structure Type	Number of Structures	100% Value	75% Value	50% Value	25% Value
Residential	39,131	\$7,785,046,438	\$5,838,784,828	\$3,892,523,219	\$1,946,261,609
Commercial	1,618	\$1,455,473,593	\$1,091,605,194	\$727,736,796	\$363,868,398
Industrial	485	\$371,795,173	\$278,846,379	\$185,897,586	\$92,948,793
Agricultural	393	\$166,070,540	\$124,552,905	\$83,035,270	\$41,517,635
Religious/Non-Profit	202	\$205,330,415	\$153,997,811	\$102,665,208	\$51,332,604
Government/Public Property	522	\$289,586,225	\$217,189,669	\$144,793,113	\$72,396,556
Educational	45	\$286,745,993	\$215,059,494	\$143,372,996	\$71,686,498

Source: Fayette County Tax Assessors Office

Land Use & Development Trends - Continued development in Fayette County will increase the potential for damage from severe thunderstorms. The Fayette County Building Department and Peachtree City, Fayetteville, Tyrone, (the Towns of Brooks and Woolsey are part of the Fayette County Building department) Building Departments enforce the 2012 International Building Code with the State of Georgia Amendments. The use and enforcement of these codes provides reasonable protection for existing and future construction from most natural hazards including tornados. Updating building codes and the adoption of these codes will reduce existing and future vulnerability and damage from tornados.

Multi-Jurisdictional Concerns - Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey are subject to severe storms and will be included in any prospective mitigation projects.

Hazard Summary - Severe storms are the most prevalent natural hazards in Fayette County. They have the capability of producing widespread property damage, injuries, and even death. Mitigation projects must be considered which reduce the overall damage due to thunderstorm winds and lightning. Mitigation plans in relation to severe storms are contained in Section 4, Part III.

Thunderstorm and High Wind Events in Fayette County

Fayette County, Georgia

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 FAYETTE	5/12/1971	1525	Tstm Wind	0 kts.	0	0	0	0
2 FAYETTE	4/7/1972	2230	Tstm Wind	0 kts.	0	0	0	0
3 FAYETTE	7/20/1974	1631	Tstm Wind	52 kts.	0	0	0	0
4 FAYETTE	1/10/1975	1840	Tstm Wind	0 kts.	0	0	0	0
5 FAYETTE	3/15/1976	2230	Tstm Wind	0 kts.	0	0	0	0
6 FAYETTE	6/19/1980	1430	Tstm Wind	50 kts.	0	0	0	0
7 FAYETTE	8/20/1980	1940	Tstm Wind	0 kts.	0	0	0	0
8 FAYETTE	5/3/1984	1335	Tstm Wind	0 kts.	0	0	0	0
9 FAYETTE	3/13/1986	635	Tstm Wind	0 kts.	0	0	0	0
10 FAYETTE	3/13/1986	755	Tstm Wind	0 kts.	0	0	0	0
11 FAYETTE	5/2/1987	1550	Tstm Wind	0 kts.	0	0	0	0
12 FAYETTE	6/3/1987	1527	Tstm Wind	0 kts.	0	0	0	0
13 FAYETTE	6/18/1987	1615	Tstm Wind	0 kts.	0	0	0	0
14 FAYETTE	7/25/1987	1800	Tstm Wind	0 kts.	0	0	0	0
15 FAYETTE	6/22/1989	1820	Tstm Wind	0 kts.	0	0	0	0
16 FAYETTE	2/10/1990	455	Tstm Wind	0 kts.	0	0	0	0

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
17 FAYETTE	2/16/1990	700	Tstm Wind	0 kts.	0	0	0	0
18 FAYETTE	2/22/1990	940	Tstm Wind	0 kts.	0	0	0	0
19 FAYETTE	4/28/1990	1254	Tstm Wind	0 kts.	0	0	0	0
20 FAYETTE	5/20/1990	1330	Tstm Wind	0 kts.	0	0	0	0
21 FAYETTE	7/23/1990	1515	Tstm Wind	0 kts.	0	0	0	0
22 FAYETTE	8/8/1990	1545	Tstm Wind	0 kts.	0	0	0	0
23 FAYETTE	8/21/1990	1645	Tstm Wind	52 kts.	0	0	0	0
24 FAYETTE	8/21/1990	1707	Tstm Wind	0 kts.	0	0	0	0
25 FAYETTE	3/1/1991	1615	Tstm Wind	0 kts.	0	0	0	0
26 FAYETTE	4/27/1991	1753	Tstm Wind	0 kts.	0	0	0	0
27 FAYETTE	5/5/1991	1540	Tstm Wind	0 kts.	0	0	0	0
28 FAYETTE	6/19/1991	1800	Tstm Wind	0 kts.	0	0	0	0
29 FAYETTE	2/26/1992	30	Tstm Wind	0 kts.	0	0	0	0
30 FAYETTE	4/20/1992	1700	Tstm Wind	0 kts.	0	0	0	0
31 FAYETTE	4/20/1992	1730	Tstm Wind	0 kts.	0	0	0	0
32 FAYETTE	7/2/1992	1600	Tstm Wind	0 kts.	0	0	0	0
33 FAYETTE	8/16/1992	1430	Tstm Wind	0 kts.	0	0	0	0
34 GAZ001>065	7/17/1993	1000	High Winds	0 kts.	1	2	500K	0
35 Fayetteville	5/21/1994	1700	Tstm Wind	N/A	0	0	5K	0
36 Peachtree City	5/21/1994	1720	Tstm Wind	N/A	0	0	5K	0
37 Peachtree City	7/5/1994	110	Tstm Wind	N/A	0	0	1K	0
38 Fayetteville/Peachtree	5/15/1995	1625	Tstm Wind	N/A	0	1	125K	0
39 Fayetteville	6/10/1995	1855	Tstm Wind	N/A	0	0	750	0

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
40 Fayetteville	7/11/1995	1700	Tstm Wind	N/A	0	0	750	0
41 Fayetteville	7/29/1995	1650	Tstm Wind	N/A	0	0	2K	0
42 Hampton	8/3/1995	1625	Tstm Wind	N/A	0	0	100	0
43 Starrs Mill	8/3/1995	1625	Tstm Wind	N/A	0	0	100	0
<u>44 GAZ001>17</u> <u>19>23>30>34>41>46></u> <u>52>57 66>70>78>80</u> <u>89>93 102>106 120</u> <u>122</u>	10/5/1995	600	Tstm Wind	N/A	8	7	75.0M	50.0M
45 Fayetteville	8/23/1996	8:30 PM	Tstm Wind	0 kts.	0	0	2K	0 K
46 Peachtree City	2/21/1997	1:40 PM	Tstm Wind	0 kts.	0	1	1K	0
47 Fayetteville	2/21/1997	1:55 PM	Tstm Wind	0 kts.	0	4	600K	0
48 Peachtree City	4/22/1997	5:15 PM	Tstm Wind	60 kts.	0	0	2K	0
49 Peachtree City	5/3/1997	8:00 AM	Tstm Wind	0 kts.	0	0	2K	0
50 Peachtree City	6/20/1997	8:25 PM	Tstm Wind	0 kts.	0	0	1K	0
51 Peachtree City	4/3/1998	7:45 PM	Tstm Wind	0 kts.	0	0	1K	0
52 Fayetteville	4/9/1998	2:30 AM	Tstm Wind	0 kts.	0	0	1K	0
53 Peachtree City	5/3/1998	5:42 PM	Tstm Wind	0 kts.	0	0	1K	0
54 Fayetteville	6/4/1998	6:45 PM	Tstm Wind	0 kts.	0	0	1K	0
55 Fayetteville	6/4/1998	7:05 PM	Tstm Wind	0 kts.	0	0	10K	0
56 Fayetteville	6/5/1998	8:00 AM	Tstm Wind	0 kts.	0	0	1K	0
57 Peachtree City	6/15/1998	11:30 PM	Tstm Wind	0 kts.	0	0	50K	0
58 Peachtree City	6/19/1998	12:00 PM	Tstm Wind	0 kts.	0	0	30K	0
59 Inman	7/19/1998	6:15 PM	Tstm Wind	0 kts.	0	0	1K	0
60 Peachtree City	6/2/1999	6:05 PM	Tstm Wind	0 kts.	0	1	1K	0
61 Kenwood	6/29/1999	7:00 PM	Tstm Wind	0 kts.	0	0	175K	0

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
62 Peachtree City	6/29/1999	8:00 PM	Tstm Wind	0 kts.	0	0	2K	0
63 Tyrone	6/30/1999	2:05 PM	Tstm Wind	0 kts.	0	0	1K	0
64 Fayetteville	7/6/1999	5:53 PM	Tstm Wind	0 kts.	0	0	1K	0
65 Peachtree City	7/21/1999	5:40 PM	Tstm Wind	0 kts.	0	0	1K	0
66 Fayetteville	7/24/1999	3:40 PM	Tstm Wind	52 kts.	0	0	1K	0
67 Fayetteville	7/24/1999	4:05 PM	Tstm Wind	0 kts.	0	0	0K	0
68 Fayetteville	7/12/2000	12:30 PM	Tstm Wind	0 kts.	0	0	4K	0
69 Fayetteville	7/20/2000	8:45 PM	Tstm Wind	0 kts.	0	0	10K	0
70 Fayetteville	7/23/2000	3:25 PM	Tstm Wind	0 kts.	0	0	25K	0
71 Tyrone	1/19/2001	12:29 PM	Tstm Wind	0 kts.	0	0	3K	0
<u>72 GAZ006>009 - 013>016 - 021>025 - 027 - 032>038 - 043>050 - 053>055 - 057>061 - 066 - 072>073 - 078 - 082</u>	3/20/2001	6:00 AM	High Wind	0 kts.	0	0	1.5M	0
73 Tyrone	6/3/2001	3:30 PM	Tstm Wind	50 kts.	0	0	5K	0
74 Peachtree City	5/3/2002	4:40 PM	Tstm Wind	0 kts.	0	0	1K	0
75 Fayetteville	7/6/2002	8:00 PM	Tstm Wind	0 kts.	0	0	2K	0
76 Tyrone	7/21/2002	4:40 PM	Tstm Wind/hail	0 kts.	0	0	5K	0
77 Peachtree City	8/1/2002	5:40 PM	Tstm Wind	0 kts.	0	0	5K	0
78 Starrs Mill	9/14/2002	1:41 PM	Tstm Wind	0 kts.	0	0	1K	0
79 Peachtree City	5/17/2002	9:40 PM	Tstm Wind/hail	0 kts.	0	0	0	0
80 Brooks	6/2/2002	4:15 AM	Tstm Wind/hail	0 kts.	0	0	50K	0
81 Fayetteville	2/4/2003	4:25 AM	Tstm Wind	50 kts.	0	0	4K	0
82 GAZ019 - 054	2/22/2003	3:00 PM	Strong Wind	N/A	0	0	6K	0
83 Peachtree City	5/2/2003	7:30 PM	Tstm Wind	50 kts.	0	0	175K	0

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
84 Fayetteville	5/2/2003	8:16 PM	Tstm Wind	50 kts.	0	0	1K	0
85 Peachtree City	5/7/2003	6:40 PM	Tstm Wind	50 kts.	0	0	5K	0
86 Inman	7/22/2003	1:44 PM	Tstm Wind	50 kts.	0	0	1K	0
TOTALS					9	16	78.284M	50.000M

Thunderstorm and High Wind Events in Fayette County Post 2005 to 2010

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Peachtree City	07/06/2005	06:15 PM	Tstm Wind	50 kts.	0	0	5K	0
2 Woolsey	07/06/2005	08:10 PM	Tstm Wind	50 kts.	0	0	25K	0
3 Fayetteville	07/10/2005	03:00 PM	Strong Wind	34 kts.	1	0	246K	0
4 Kenwood	07/21/2005	03:29 PM	Tstm Wind	31 kts.	0	0	1K	0
5 Peachtree City	07/20/2006	03:37 PM	Tstm Wind	55 kts.	0	0	0	0
6 Peachtree City	08/20/2006	06:45 PM	Tstm Wind	35 kts.	0	0	0K	0
7 Peachtree City	01/05/2007	10:59 AM	Tstm Wind	50 kts.	0	0	1K	0K
8 Fayetteville	07/09/2007	14:47 PM	Tstm Wind	36 kts.	0	0	1K	0K
9 Peachtree City	08/18/2007	17:00 PM	Tstm Wind	50 kts.	0	0	2K	0K
10 Tyrone	02/26/2008	06:30 AM	Tstm Wind	50 kts.	0	0	4K	0K
11 Peachtree City	03/15/2008	16:45 PM	Tstm Wind	50 kts.	0	0	2K	0K
12 Fayetteville	08/02/2008	19:00 PM	Tstm Wind	60 kts.	0	0	5K	0K
13 Tyrone	10/08/2008	15:18 PM	Tstm Wind	52 kts.	0	0	10K	0K
14 Aberdeen	05/03/2009	17:28 PM	Tstm Wind	50 kts.	0	0	5K	0K
TOTALS:					1	0	307K	0

Thunderstorm and High Wind Events in Fayette County 2010-2015

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	253.75K	0.00K
TYRONE	FAYETTE CO.	GA	04/04/2011	22:45	EST-5	Thunderstorm Wind	50 kts. EG	0	0	30.00K	0.00K
PEACHTREE CITY	FAYETTE CO.	GA	04/25/2011	19:46	EST-5	Thunderstorm Wind	39 kts. EG	0	0	2.00K	0.00K
PEACHTREE CITY	FAYETTE CO.	GA	05/26/2011	16:48	EST-5	Thunderstorm Wind	52 kts. EG	0	0	35.00K	0.00K
FAYETTE CO.	FAYETTE CO.	GA	06/26/2011	17:52	EST-5	Thunderstorm Wind	52 kts. EG	0	0	10.00K	0.00K
FAYETTEVILLE	FAYETTE CO.	GA	07/12/2011	14:21	EST-5	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
STOP	FAYETTE CO.	GA	08/20/2011	12:29	EST-5	Thunderstorm Wind	52 kts. EG	0	0	7.00K	0.00K
STOP	FAYETTE CO.	GA	07/03/2012	16:42	EST-5	Thunderstorm Wind	50 kts. EG	0	0	15.00K	0.00K
TYRONE	FAYETTE CO.	GA	07/04/2012	16:40	EST-5	Thunderstorm Wind	50 kts. EG	0	0	20.00K	0.00K
STARRS MILL	FAYETTE CO.	GA	07/05/2012	19:15	EST-5	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
LOWRY	FAYETTE CO.	GA	07/27/2012	16:37	EST-5	Thunderstorm Wind	45 kts. EG	0	0	0.50K	0.00K
FAYETTEVILLE	FAYETTE CO.	GA	08/03/2012	18:50	EST-5	Thunderstorm Wind	56 kts. EG	0	0	120.00K	0.00K
BROOKS	FAYETTE CO.	GA	08/03/2012	19:15	EST-5	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PEACHTREE CITY	FAYETTE CO.	GA	05/19/2013	11:45	EST-5	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
PEACHTREE CITY	FAYETTE CO.	GA	06/27/2013	15:10	EST-5	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
FYTVILLE MCCOMBS ARP	FAYETTE CO.	GA	01/11/2014	09:15	EST-5	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
TYRONE	FAYETTE CO.	GA	06/21/2014	14:25	EST-5	Thunderstorm Wind	55 kts. EG	0	0	1.00K	0.00K
SHAKE RAG	FAYETTE CO.	GA	06/21/2014	14:34	EST-5	Thunderstorm Wind	45 kts. EG	0	0	0.25K	0.00K
FAYETTE CO.	FAYETTE CO.	GA	07/09/2014	14:40	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.75K	0.00K
FAYETTEVILLE	FAYETTE CO.	GA	08/18/2014	18:50	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.75K	0.00K
Totals:								0	0	253.75K	0.00K

Lightning Events in Fayette County, Georgia
Fayette County, Georgia
1995 - 2003

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Brooks	5/15/1995	4:40 PM	Lightning	N/A	0	0	3K	0
2 Brooks	1/1/1997	2:48 PM	Lightning	N/A	0	0	5K	0
3 Fayetteville	3/13/1997	6:55 PM	Lightning	N/A	0	0	2K	0
4 Fayetteville	5/7/1999	4:15 AM	Lightning	N/A	0	0	1K	0
5 Fayetteville	6/29/1999	7:00 PM	Lightning	N/A	0	0	35K	0
6 Fayetteville	7/23/2000	3:25 PM	Lightning	N/A	0	0	50K	0
7 Peachtree City	7/31/2000	4:30 PM	Lightning	N/A	0	0	175K	0
8 Fayetteville	3/12/2001	4:20 PM	Lightning	N/A	0	0	150K	0
9 Brooks	7/23/2002	6:55 PM	Lightning	N/A	0	0	450K	0
10 Tyrone	10/6/2002	10:45 PM	Lightning	N/A	0	0	3K	0
11 Brooks	11/12/2002	4:30 AM	Lightning	N/A	0	0	2K	0
12 Fayetteville	7/10/2003	6:30 PM	Lightning	N/A	0	0	25K	0
13 Starrs Mill	8/16/2003	1:35 PM	Lightning	N/A	0	0	1K	0
TOTALS					0	0	901K	0

Lightning Events in Fayette County Post 2005 to 2010

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Peachtree City	06/05/2005	04:30 PM	Lightning	N/A	0	0	0	0
2 Starrs Mill	06/05/2005	05:00 PM	Lightning	N/A	0	1	10K	0
3 Fayetteville	06/21/2005	02:12 PM	Lightning	N/A	0	1	5K	0
4 Peachtree City	07/06/2005	06:28 PM	Lightning	N/A	0	0	5K	0
5 Peachtree City	07/19/2005	03:40 PM	Lightning	N/A	0	0	250K	0
6 Peachtree City	07/28/2005	03:47 PM	Lightning	N/A	0	0	50K	0
7 Peachtree City	12/05/2005	12:30 AM	Lightning	N/A	0	0	1K	0
8 Fayetteville	08/05/2006	03:11 PM	Lightning	N/A	0	0	665K	0
9 Peachtree City	08/20/2006	03:40 PM	Lightning	N/A	0	0	50K	0
10 Fayetteville	06/25/2007	16:44 PM	Lightning	N/A	0	0	5K	0K
11 Peachtree City	07/09/2007	14:51 PM	Lightning	N/A	0	1	250K	0K
12 Peachtree City	07/20/2007	13:00 PM	Lightning	N/A	0	0	800K	0K
13 Peachtree City	07/25/2007	22:20 PM	Lightning	N/A	0	0	150K	0K
14 Lees Mill	08/23/2007	19:50 PM	Lightning	N/A	0	0	400K	0K
15 Fayetteville	08/24/2007	18:24 PM	Lightning	N/A	0	0	775K	0K
16 Harp	06/11/2008	15:23 PM	Lightning	N/A	0	0	100K	0K
17 Aberdeen	04/02/2009	00:30 AM	Lightning	N/A	0	0	1K	0K
TOTALS:					0	3	3.517M	0

Lighting Events 2010-2015

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								1	9	1.111M	0.00K
KENWOOD	FAYETTE CO.	GA	05/26/2011	17:00	EST-5	Lightning		0	0	250.00K	0.00K
FYTVILLE MCCOMBS ARP	FAYETTE CO.	GA	06/24/2011	19:19	EST-5	Lightning		0	0	300.00K	0.00K
FYTVILLE MCCOMBS ARP	FAYETTE CO.	GA	07/09/2011	17:15	EST-5	Lightning		0	0	15.00K	0.00K
HARP	FAYETTE CO.	GA	07/09/2011	17:35	EST-5	Lightning		0	0	300.00K	0.00K
FAYETTEVILLE	FAYETTE CO.	GA	07/12/2011	14:26	EST-5	Lightning		0	0	25.00K	0.00K
FAYETTEVILLE	FAYETTE CO.	GA	08/06/2011	15:30	EST-5	Lightning		0	0	10.00K	0.00K
FAYETTEVILLE	FAYETTE CO.	GA	03/01/2012	05:45	EST-5	Lightning		0	0	80.00K	0.00K
WOOLSEY	FAYETTE CO.	GA	03/03/2012	00:37	EST-5	Lightning		0	0	10.00K	0.00K
PEACHTREE CITY	FAYETTE CO.	GA	07/13/2012	16:30	EST-5	Lightning		1	1	0.00K	0.00K
LEES MILL	FAYETTE CO.	GA	07/16/2012	16:25	EST-5	Lightning		0	0	20.00K	0.00K
HARP	FAYETTE CO.	GA	08/02/2012	18:25	EST-5	Lightning		0	8	1.00K	0.00K
FAYETTEVILLE	FAYETTE CO.	GA	08/03/2012	18:55	EST-5	Lightning		0	0	100.00K	0.00K
Totals								1	9	1.111M	0.00K

IV. Winter Storms

Hazard Identification – A freezing rain or ice storm occurs when the surface temperature falls below freezing. High winds accompanied by freezing rain are more likely to become an ice storm. Liquid that falls and freezes on impact results in a coat of ice glazed on exposed objects. An ice storm may range from a thin glaze to a heavy coating. A heavy accumulation of ice, especially when accompanied by high winds, devastates trees and power lines. Streets and highways become extremely hazardous to motorists and pedestrians, trees fall, and power outages occur.

Hazard Profile – From 2005 to 2015 there has been 12 snow and ice events recorded in Fayette County. This correlates to a probability a snow and/or ice event every 1.25 years.

These events have ranged in extent from ½ inch to 8” of snow that fell and devastated Fayette County in the blizzard of 1993. The blizzard, called “the storm of the century” caused extensive damage and economic hardship across Georgia and Fayette County. This and other winter storms have resulted in a Presidential Disaster Declaration.

Vulnerability Assessment - All assets within Fayette County are exposed to the hazards of winter storms. There are currently 39,131 residential properties, 1,618 commercial properties, 485 office & industrial facilities, 202 religious and non-profit institutional facilities, 522 government owned buildings, 546 agricultural, 45 educational, and 8 public utilities that have been identified as vulnerable to winter storms. This constitutes all of the properties in Fayette County. Winter storms cause significant damage in Fayette County. Damage to public electrical utilities from accumulating ice and trees falling on power lines causes wide spread power outages and significant damage to electrical transmission lines as well as personal and economic hardship on our community. These rare winter storms have not followed a particular path and all structures and critical infrastructure are susceptible to damage.

Assets Exposed to Hazard - All assets within the county are susceptible to winter storms. Mitigation projects focusing on back-up power sources and debris removal should be given high priority countywide.

Damage Assessment - Because all facilities within the county are subject to potential losses due to winter storms, estimations were done assuming 25%, 50%, 75% and 100% damages.

Winter Storm Damage Assessment 2015

Structure Type	Number of Structures	100% Value	75% Value	50% Value	25% Value
Residential	39,131	\$7,785,046,438	\$5,838,784,828	\$3,892,523,219	\$1,946,261,609
Commercial	1,618	\$1,455,473,593	\$1,091,605,194	\$727,736,796	\$363,868,398
Industrial	485	\$371,795,173	\$278,846,379	\$185,897,586	\$92,948,793
Agricultural	393	\$166,070,540	\$124,552,905	\$83,035,270	\$41,517,635
Religious/Non-Profit	202	\$205,330,415	\$153,997,811	\$102,665,208	\$51,332,604
Government/Public Property	522	\$289,586,225	\$217,189,669	\$144,793,113	\$72,396,556
Educational	45	\$286,745,993	\$215,059,494	\$143,372,996	\$71,686,498

Source: Fayette County Tax Assessors Office

Land Use & Development Trends - Future development throughout Fayette County will result in the potential for damage from winter storms. The Fayette County Building Department and Peachtree City, Fayetteville, Tyrone, (the Towns of Brooks and Woolsey are part of the Fayette County Building Department) Building Departments enforce the 2012 International Building Code with the State of Georgia Amendments. The use and enforcement of these codes provides reasonable protection for existing and future construction from most natural hazards including winter storms. Updating building codes and the adoption of these codes will reduce existing and future vulnerability and damage from winter storms.

Multi-Jurisdictional Concerns - All of Fayette County including Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey is subject to winter storms and will be included in any prospective mitigation projects.

Hazard Summary - When winter storms hit the southeastern United States, they generally are devastating due to the rarity of the event and lack of individual preparedness. Motorists are not generally accustomed to driving in snow and ice conditions thereby increasing the chances for accidents and injuries. Power outages from fallen trees cause tremendous challenges for Emergency Managers and other response organizations. Icy conditions also challenge emergency response vehicles responding to the increase of calls due to winter storms. Winter Storm related mitigation activities can be viewed in Section 4, Part IV.

**Winter Weather Events in Fayette County
Fayette County, Georgia**

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Fayette County	2/16/1996	6:00 AM	Snow	N/A	0	0	0	0
2 Fayette County	3/14/1998	6:00 PM	Heavy Snow	N/A	0	0	0	0
3 Fayette County	1/22/2000	1:00 PM	Ice Storm	N/A	0	1	48.0M	0
4 Fayette County	1/28/2000	7:00 PM	Ice Storm	N/A	0	0	2.0M	0
5 Fayette County	2/19/2000	7:30 AM	Winter Storm	N/A	0	0	0	0
6 Fayette County	12/28/2000	12:00 AM	Winter Storm	N/A	0	0	0	0
7 Fayette County	1/1/2001	7:58 AM	Light Snow	N/A	0	0	0	0
8 Fayette County	1/2/2002	6:00 AM	Heavy Snow	N/A	0	0	0	0
TOTALS					0	1	50.020M	0

Winter Storms Fayette County Post 2005 to Present

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Fayette County	01/19/2008	12:00 PM	Heavy Snow	N/A	0	0	0K	0K
2 Fayette County	01/08/2010	8:00PM	Snow	N/A	0	3	ok	ok

Winter Storms Fayette County 2010-2015

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
FAYETTE (ZONE)	FAYETTE (ZONE)	GA	01/09/2011	17:00	EST-5	Winter Storm		0	0	0.00K	0.00K
FAYETTE (ZONE)	FAYETTE (ZONE)	GA	01/28/2014	10:00	EST-5	Winter Storm		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Fayette County experienced a major winter storm in January 2014. This event has been called an epic event and caused power outages to more than 24,000 residents and caused approximately \$2,000,000 in damage and response. Fayette County was declared a disaster area as a result of the storm.

V. Drought

Hazard Identification - A drought is a prolonged period without rain. It can range from two weeks to six months or more and affects water availability and quality. In Georgia, droughts affect municipal and industrial water supplies, stream-water quality, recreation at reservoirs, hydropower generation, navigation, agricultural, wells, structural and wild land firefighting efforts and forest resources. Data collected from the National Climatic Data Center and the Georgia Forestry Commission was used for this report.

Hazard Profile - Eighteen drought events were recorded from 1957 to 2015. Using statistical data there is a chance of drought every 3.2 years. Wildfire activity was recorded in Fayette County. The fires were stopped by local fire departments and the Georgia Forestry Commission. These fires caused damage to structures and caused the implementation of outdoor burning bans during periods of drought. The committee used the Palmer Drought Severity Index to determine the extent of drought in Fayette County. These drought events range from weak to extreme.

Vulnerability Assessment - All assets within Fayette County are exposed to the hazards of drought. Fayette County has a steeply declining and virtually non-existent agricultural base. The county is transitioning from primarily a farming community to a major population center suburb of Atlanta. Because of this transition, the effects of drought could impact drinking water supplies in the county's reservoirs. The county's and municipal leaders have anticipated droughts and focused on building water storage capacity to insure that our community has adequate water supplies to meet our growing population during times of drought. Fayette County has added a new reservoir called Lake McIntosh that was completed in 2013. The addition of the reservoir added a significant amount of raw water storage capacity and additional drinking water capacity. These actions with the additional storage capacity should significantly reduce the effects of drought in Fayette County.

Assets Exposed to Hazard - The exposure of assets to drought related hazards are generally indirect. The occurrence of a drought drastically increases the risks of fire and a direct economic impact and could impede the fire departments ability to suppress structure and brush fires.

Damage Assessment - There is no estimated damage to facilities due to droughts. All impacts would be secondary in nature.

Land Use and Development Trends - Fayette County and the various Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks and Woolsey continue to develop land according to their land use plans. Continued development will increase consumption of raw water reserves throughout the county. Many residents still rely on wells for water for residential housing. Drought has and will continue to affect those utilizing wells for water consumption. Fayette County has adequate water reserves for the foreseeable future and implements water restriction during times of drought as a way of conserving water. The Fayette County and Fayetteville Water Systems have planned for future water needs as development continues. This is evident by the construction of Lake McIntosh Reservoir that is being constructed for future growth and population. The Land Use Plan requires seven elements to be approved by State regulatory agencies and are included in this plan. See Section 9, Appendix B, Land Use and Development Maps by Jurisdiction.

Multi-Jurisdictional Concerns - The highest occurrence of losses due to drought will be in the rural areas of Fayette County. Fayette County, Peachtree City, Fayetteville, Tyrone, Brooks, and Woolsey will be included in drought mitigation planning.

Hazard Summary - Although droughts do not generally have an immediate effect, they cause many problems through secondary means such as wildfires, reduction in water supplies and economic and development stress. Drought related mitigation strategies are present in Section 4, Part V.

Drought in Fayette County, Georgia

Location or	Date	Time	Type	Mag	Dth	Ini	PrD	CrD
1 Fayette County	9/1/1997	12:00 AM	Drought	N/A	0	0	0	20.0M
2 Fayette County	5/1/1999	12:00 AM	Drought	N/A	0	0	0	0
3 Fayette County	8/1/1999	12:00 AM	Drought	N/A	0	0	0	0
4 Fayette County	2/1/2000	12:00 AM	Drought	N/A	0	0	0	0
5 Fayette County	4/1/2000	12:00 AM	Drought	N/A	0	0	0	0
6 Fayette County	5/1/2000	12:00 AM	Drought	N/A	0	0	0	0
7 Fayette County	6/1/2000	12:00 AM	Drought	N/A	0	0	0	306.7M
8 Fayette County	7/1/2000	12:00 AM	Drought	N/A	0	0	0	0
9 Fayette County	10/1/2000	12:00 AM	Drought	N/A	0	0	0	0
10 Fayette County	11/1/2001	12:00 AM	Drought	N/A	0	0	0	0
11 Fayette County	4/1/2002	12:00 AM	Dry	N/A	0	0	0	0
12 Fayette County	8/1/2002	12:00 AM	Drought	N/A	0	0	0	0
TOTALS					0	0	0	326.760M

Drought in Fayette County Post 2005 to 2010

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 Fayette County	05/01/2007	00:00 AM	Drought	N/A	0	0	0K	0K
2 Fayette County	09/01/2007	00:00 AM	Drought	N/A	0	0	0K	344.0 M
3 Fayette County	10/01/2007	00:00 AM	Drought	N/A	0	0	0K	0K
4 Fayette County	11/01/2007	00:00 AM	Drought	N/A	0	0	0K	0K
5 Fayette County	12/01/2007	00:00 AM	Drought	N/A	0	0	0K	0K

Source: Fayette County Tax Assessors Office and Fayette County Environmental Management Services.

Drought in Fayette County 2010-2015

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
FAYETTE (ZONE)	FAYETTE (ZONE)	GA	09/01/2011	00:00	EST- 5	Drought		0	0	0.00K	0.00K
Totals:								0	0	0	