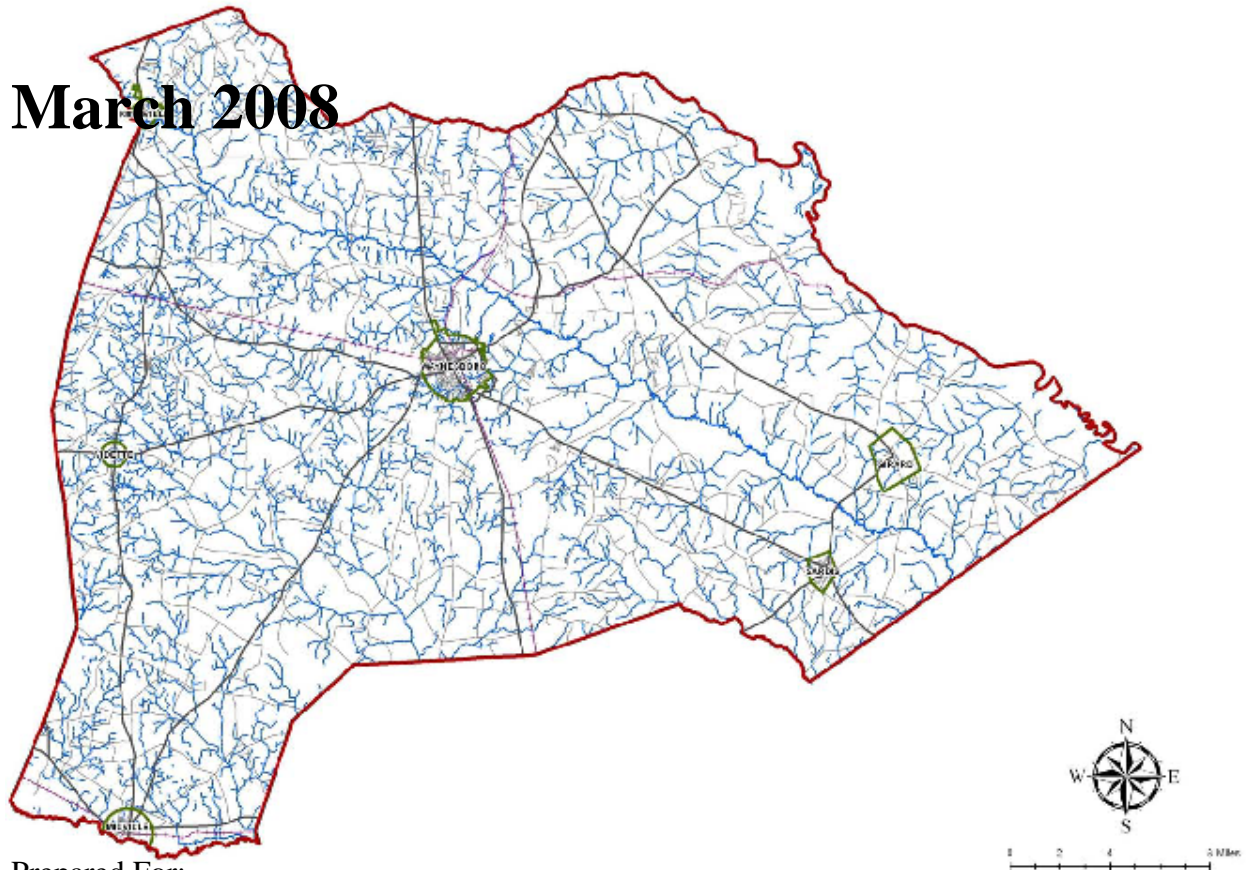


Burke County, Georgia

Pre-Disaster Hazard Mitigation Plan

March 2008



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CHAPTER 1 - INTRODUCTION

SECTION I - PURPOSE

The Disaster Mitigation Act of 2000 (DMA2K) was signed into law on October 30, 2000, and it established a Pre-disaster Mitigation Program and new requirements for the national post-disaster Hazard Mitigation Grant Program. DMA2K encourages local pre-disaster planning to provide local governments with a venue for expressing hazard mitigation needs, resulting in faster allocation of funding and more effective risk reduction projects. To implement the new DMA2K requirements, FEMA prepared an Interim Final Rule, published in the Federal Register on February 26, 2002, at 44 CFR Parts 201 and 206, which establishes planning and funding criteria for states and local communities.

Historically, it has been proven that the impacts of natural and technological hazards can be reduced, and in some instances avoided altogether, if appropriate mitigation steps are taken before such hazards occur. The purpose of the Burke County Pre-Disaster Mitigation (PDM) Plan is to document vital information to aid in the decision-making process and resource allocation when determining the best options for reducing or eliminating the loss of life and property that occurs as a result of natural hazards. This plan is meant to assist the County in coordinating and implementing hazard mitigation policies, programs and projects. The Burke County PDM Plan represents the combined effort of Burke County and the cities of Girard, Keysville, Midville, Sardis, Vidette and Waynesboro. Specifically, this plan contains mitigation goals and objectives, as well as mitigation actions that can help Burke County and its six cities reduce the risks associated with potential hazards and to prevent loss from future hazard events.

SECTION II – PLANNING METHODOLOGY

Several resources were consulted in the development of the Burke County PDM Plan. Data was collected from numerous sources, including the National Climatic Data Center, National Weather Service, Georgia Department of Natural Resources, Georgia Forestry Commission, Georgia Department of Agriculture, Georgia Tornado Database, local and regional newspaper articles, as well as personal interviews. The Central Savannah River Area Regional Development Center (RDC) assisted in research and analysis, facilitated planning committee meetings and public hearings, and developed the final plan.

The planning committee reviewed two existing documents, the Burke County Joint Comprehensive Plan and the Emergency Operations Plan (LEOP), to glean relevant information. The Comprehensive Plan land use section was reviewed to determine current and future land use trends and recommendations for future development. This information is particularly important in regards to issues pertaining to floodplains, wetlands, waterways and forestry. The LEOP was examined for hazard profiles, current emergency management capabilities, jurisdictional responsibilities and cooperative agreements among agencies. The plans provided the planning committee with a starting point to assess potential hazards and to establish goals and needs with regards to pre-disaster mitigation.

The planning committee held six meetings over a 14- month period to guide in the development of the plan. The committee was responsible for developing the mission statement, as well as the

goals, objectives and action steps identified in the plan. Committee members researched previous hazard information in the areas of flooding, wildfires, tornados, winter storms, hurricanes, high winds, dam failure, hail, and drought; however, some of these hazards were eliminated from the plan due to the low level of risk in the community. All committee members collected critical facilities information based on their area of expertise or jurisdiction. The CSRA RDC was responsible for assessing vulnerability and estimating potential losses from the information collected by the planning committee. Potential losses include people, buildings, infrastructure, and other important community assets.

The planning committee was developed to provide guidance and expertise during the preparation of this plan. The committee is a collaborative effort consisting of Burke County citizens, staff and elected officials from Burke County and the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro, public agencies, and non-profit organizations. The PDM committee was comprised of the following representatives:

- Burke County Board of Education
- Burke County Emergency Management Agency
- Burke County Fire Department
- Burke County Health Department
- Burke County Medical Center
- Burke County Manager
- Burke County Public Works Director
- Burke County Building Inspector
- Burke County Sheriff's Department
- Burke County Road Department
- Burke County 911
- Burke County Extension Office
- City of Waynesboro Fire Department
- City of Waynesboro City Administrator
- City of Waynesboro Police Department
- City of Waynesboro Public Works Director
- City of Sardis Police Department
- City of Midville Police Department
- City of Midville Mayor
- City of Keysville Mayor
- City of Keysville City Administrator
- City of Vidette Mayor
- City of Girard City Clerk
- Georgia Forestry Commission
- Lawrence Mayo Southern Nuclear Georgia Power Company Plant Vogtle
- Diana Royal The True Citizen Newspaper

The following agencies/departments/organizations provided specific information and support for the plan:

- Burke County Board of Education was responsible for providing structural replacement

- and content values for all schools as well as square footage and occupancy limits.
- Burke County Board of Education Shop also provided information regarding areas in the County that have reoccurring flooding problems.
 - Police Departments for the Cities of Waynesboro, Sardis, and Midville provided staff support to the PDM planning effort and were responsible for providing structural replacement and content values for all critical facilities located in their respective cities as well as square footage and occupancy limits.
 - Burke County Sheriff’s Department provided staff support to the PDM planning effort.
 - Burke County Medical Center and the Burke County Health Department identified vulnerable populations. They also provided replacement value estimates for their properties.
 - Burke County EMA and the Fire Departments of Burke County and the City of Waynesboro provided staff support to the PDM planning effort and assisted with identifying occupancy limits for some of the critical structures and replacement value estimates.
 - Elected Officials from the Keysville, Vidette, Midville, and Waynesboro provided information relative to their jurisdictions and provided replacement value estimates for their critical facilities. They also provided information regarding areas in the County that have reoccurring flooding problems.
 - Girard’s City Clerk provided information relative to their jurisdiction and provided replacement value estimates for their critical facilities.
 - Burke County’s Manger and Staff provided information relative to their jurisdictions and provided replacement value estimates for their critical facilities. They also provided information regarding areas in the County that have reoccurring flooding problems.
 - Georgia Forestry Commission provided data on wildfire events and assisted with the formulation of mitigation measures.
 - Burke County Tax Assessor’s Office provided most of the aggregate values for the critical structures. The valuations had to be converted to full values since they are figured at 40% of actual value. This information, combined with demographic data, is compiled on GEMA Worksheet #3a in Appendix D for all jurisdictions.
 - Georgia Power Company helped with mitigation goals and objectives.
 - CSRA Regional Development Center’s Geographical Information System (GIS) Department produced several of the contained in the PDM Plan. Maps are located in Appendix A.

Planning team members were assigned to research past occurrences of the following hazards:

Tornados	Rob Peel and John Finley
Failure of Dams	Merv Waldrop and Linda Grijalva
Droughts	Jennie Johnson, John Finley and Norman Elliott, Jr.
Wildfires	George Glenn and Linda Grijalva
Floods	{ Bill Owens, Leroy Daniels, Jerry Coalson, } Norman Elliott, Jr., Jesse Burke }
High Winds & Hurricanes	Merv Waldrop and John Finley
Severe Winter Storms	Robert Parrish and Julie Herrmann
Hail Storms	Dianna Royal



Members of the planning committee were provided critical facilities sheets for their jurisdiction or organization. Critical Facilities sheet provided information as the replacement value, square footage, type of facility and daily population. Once data was collected and analyzed any missing information was assigned based on jurisdictions.

All planning committee meetings were open to the public, in addition to the two public hearings that were advertised in the local newspaper. The legal organ of Burke County is *The True Citizen*. This is the most efficient means to disseminate information to residents and organizations located in the county. In order to meet the requirement to afford an opportunity for neighboring communities, local and regional agencies, businesses, academia and other private and non-profit interests to be involved in the planning process invitations were extend by letter or phone calls from Rusty Sanders, EMA Director.

The first public hearing was held to inform the public and planning committee of the purpose of mitigation plan and to solicit public input on the goals and objectives of the plan. This meeting resulted in general comments and a discussion of who should be involved in the planning process. The second hearing was held at the end of the planning process to present a draft copy of the plan to the public for their review and comment before approval by the Burke County Board of Commission. The plan has been formally adopt through resolutions by Burke County as well as the Cities of Girard, Keysville, Midville, Sardis, Vidette and Waynesboro.

SECTION III – PLAN ORGANIZATION

The Burke County PDM Plan contains a Hazard, Risk and Vulnerability (HRV) assessment, a section that describes five natural hazards typically occurring within the County, as well as a section that identifies specific mitigation goals, objectives and related courses of action. In addition, plan implementation and maintenance are discussed, including methods for keeping the public involved in the process.

The five hazards included in this plan are considered to have the highest probability of occurrence in relation to previous incidents, vulnerability, potential loss, and frequency of occurrence. The plan also identifies and prioritizes hazard mitigation opportunities in each vulnerable area based on input from the planning committee members, relevant government agencies, local businesses, and Burke County citizens.

SECTION IV – HAZARD, RISK AND VULNERABILITY ASSESSMENT

A HRV assessment was accomplished by compiling and reviewing historical data on the location of specific hazards, the value of existing property in hazard locations, and analyzing the risk to life, property and the environment from future hazard events. The planning committee accomplished the HRV by completing the following steps:

Inventorying Critical Facilities: The County’s critical facilities are crucial to provide essential services to preserve the public’s welfare and quality of life. In addition, these facilities fulfill important public safety, emergency response, and/or disaster recovery functions. Critical

facilities for Burke County and all jurisdictions have been identified, mapped, and illustrated in Appendix A.

Hazard Identification: Maps and historical data sources were studied and reviewed in order to identify the geographic extent, intensity, and probability of occurrence for various hazard events. The committee identified six major hazards that have the potential to affect Burke County: flooding, drought, wildfire, severe weather (tornados, tropical storms, thunderstorms) and winter storms. Based on available data the committee assembled the most comprehensive hazard history possible for Burke County and all jurisdictions. This information is provided in Appendix D.

Profiling Hazard Events: The committee analyzed the causes and characteristics of each hazard to determine how Burke County and its six cities have been affected in the past and what part of population and infrastructure has been historically vulnerable to each specific hazard. A profile of each hazard discussed in this plan is provided in *Chapter 2*.

Vulnerability Assessment: This step was accomplished by comparing each previously identified hazard with the inventory of affected critical facilities and population exposed to each hazard. GEMA Worksheet(s) #3a is provided in Appendix D for all jurisdictions outlining this step of the HRV assessment.

Estimating Losses: Using the best available data, tax digest data, parcel maps and GEMA Critical Facility Inventory online mapping system reports the committee estimated damage and financial losses likely to be sustained in a geographic area. Describing vulnerability in terms of dollar losses provides the county with a common framework in which to measure the affects of hazards on critical facilities (*Appendix A and Appendix D*).

MITIGATION GOALS & OBJECTIVES

The planning committee used the results of the HRV assessment to identify and prioritize appropriate mitigation goals, objectives and related actions. Each mitigation goal includes required actions for implementation, and potential sources may include grant programs or human resources.

SECTION V – MULTI-JURISDICTIONAL CONSIDERATIONS

Burke County and the Cities of Girard, Keysville, Midville, Sardis, Vidette and Waynesboro provided active participants in the planning process and have identified mitigation goals, objectives and action items specific to their jurisdiction. The governing bodies for the Cities of Girard, Keysville, Midville, Sardis, Vidette and Waynesboro have formally adopted the Burke County PDM Plan.

SECTION VI –PLAN ADOPTION, IMPLEMENTATION & MAINTENANCE

The Burke County Board of Commissioners has formally adopted the Burke County PDM Plan. The Burke County PDM Planning Committee, working with appropriate local officials, will be responsible for initiating implementation of plan action items and undertaking a formal review process.

The Plan Maintenance Section of this document details the formal process that will ensure that the Burke County PDM Plan remains an active and relevant document. The plan maintenance process includes monitoring and evaluating the plan annually, and producing a plan revision every five years. Additionally, Burke County will develop steps to ensure public participation throughout the plan maintenance process. Finally, this section describes how Burke County will incorporate the mitigation strategies identified in this plan into other relevant planning documents such as the Joint Burke County Comprehensive Plan, Short-Term Work program (STWP) and Emergency Operations Plan (EOP).

Included in Appendix E is formal approval by the Burke County Board of Commissioners to submit this plan to GEMA and FEMA Region IV for approval. The Burke County Board of Commissioners and the Cities of Girard, Keysville, Midville, Sardis, Vidette and Waynesboro has formally adopted the plan.



SECTION VII – LOCAL RESOLUTION

Whereas: Burke County has experienced damage from Wildfire, Thunderstorms, Tornado, Flood, Drought, Tropical Storm and Hail, on many occasions in the past, resulting in property loss, loss of life, economic hardship and threats to public health and safety; and

Whereas: a Burke County Joint Pre-Disaster Mitigation Plan has been developed after approximately one year of research and work by the Burke County Joint Pre-Disaster Mitigation Planning Committee and the people of the community; and

Whereas: the Plan recommends mitigation goals, objectives and action steps that will protect the people and property affected by natural hazards facing Burke County; and

Whereas: two public meetings were held to review the Plan as required by law;

NOW THEREFORE IT HAS BEEN RESOLVED by the Burke County Board of Commissioners that

1. The Burke County Joint Pre-Disaster Plan is hereby adopted as the official plan of Burke County;
2. The respective officials identified in the strategy of the Plan are hereby assigned to implement the recommended actions assigned to them in the Plan. These officials will report as directed in this Plan on their activities;
3. The Burke County Joint Pre-Disaster Plan Mitigation Planning Committee will provide progress reports (as directed in the Plan) on the status of the implementation of the Plan to the Burke County Board of Commissioners.

PASSED BY THE Burke County Board of Commissioners, this ____ day of _____ 2008.

Jimmy Dixon, Commission Chairman

ATTESTED and FILED in my office this ____ day of _____ 2008.

County Clerk

A copy of all resolutions can be found in Appendix E



SECTION VIII – PAST AND CURRENT HAZARD MITIGATION PROJECTS

Burke County has adopted a Local Emergency Operations Plan. All jurisdictions have NOAA radios that were provided by the state of Georgia. Also, the County is working on the Area 3 Response Plan.

SECTION IX – COMMUNITY DATA

Burke County was one of Georgia's original eight counties. Originally organized as the Parish of St. George, Burke County was named for English political writer, member of the British Parliament and supporter of the colonies' interests, Edmond Burke. Known as the "Bird Dog Capital of the World," Waynesboro was named for General Anthony "Mad Anthony" Wayne, a famous Revolutionary soldier.

The County was formed in February 5, 1777 and has a total land area of 830.6 square miles. The city of Waynesboro is the county seat and the other incorporated cities are Girard, Keysville, Midville, Sardis, and Vidette.

According to the 2000 Census the population of Burke County was 22,243 with 46.9% of the residents were white and 51% were black. Hispanics, who can be identified as either white or black in the Census data, made up 1.4% of the county's population. In Burke County, 31.3% of the county's residents were age 18 or younger, while 9.6% were age 65 or older.

Community	Population			Growth (%)	
	1980	1990	2000	1980-1990	1990-2000
Burke	19,349	20,579	22,243	6.4 %	8.1 %
Girard	225	195	227	-13.3 %	16.4 %
Keysville	0	350	180	0.0 %	-48.6 %
Midville	670	620	457	-7.5 %	-26.3 %
Sardis	1,180	1,116	1,171	-5.4 %	4.9 %
Vidette	0	98	112	0.0 %	14.3 %
Waynesboro	5,760	5,669	5,813	-1.6 %	2.5 %

The county per capita personal income in 2004 was \$19,584 and the median household income was \$27,877, Based on 2000 census data 28.7% of the county's population live below the poverty level and 39.0% of the children under the age of 18 live below the poverty level.

In the year 2004, the average weekly wage for employment sectors in the county was \$648. In 2004, the total number of employees located in Burke County was 5,990. Of the total employees, 17.6% were employed in the goods producing sector, followed by 58.2% in the service producing sector and 24.2% employed in government. Based on Georgia Department of Labor statistics for November 2007 the current unemployment rate is 9.0%.

CHAPTER 2 – NATURAL HAZARD, RISK AND VULNERABILITY SUMMARY

The PDM Planning Committee initially identified all natural hazards that could potentially affect Burke County and the Cities of Girard, Keysville, Midville, Sardis, Vidette and Waynesboro by utilizing FEMA Worksheet #1 (Appendix D). Task A of Worksheet #1 instructed committee members to research newspapers and other historical records, existing community plans and reports, as well as Internet websites to determine which hazards might occur in Burke County. Task B then narrowed the list to only the hazards that are most likely to impact the county by reviewing hazard websites to determine if Burke County is located in a high-risk area.

Initially, the committee found that droughts, wildfire, extreme heat, floods, dam failure, tropical storms, hail, severe winter storms, tornados, hurricanes, wildfires, and thunderstorms might affect Burke County. However, the Committee later concluded that some of these hazards did not pose a significant threat to the community. As a result of the PDM planning process, the committee determined that five natural hazards pose a direct, measurable threat to Burke County: flooding, drought, wildfire, severe weather (tornados, tropical storms, thunderstorms) and winter storms. The committee then profiled each of these hazards using FEMA worksheet #2, which included obtaining a base map, then recording hazard event profile information. Of the five hazards, the entire county is exposed to four: severe weather which includes tornados, tropical storms, and thunderstorms, winter storms, drought and wildfire. Flooding is isolated to select areas of the county that are within the flood plain area. Each of these potential hazards is addressed individually with relevant supporting data.

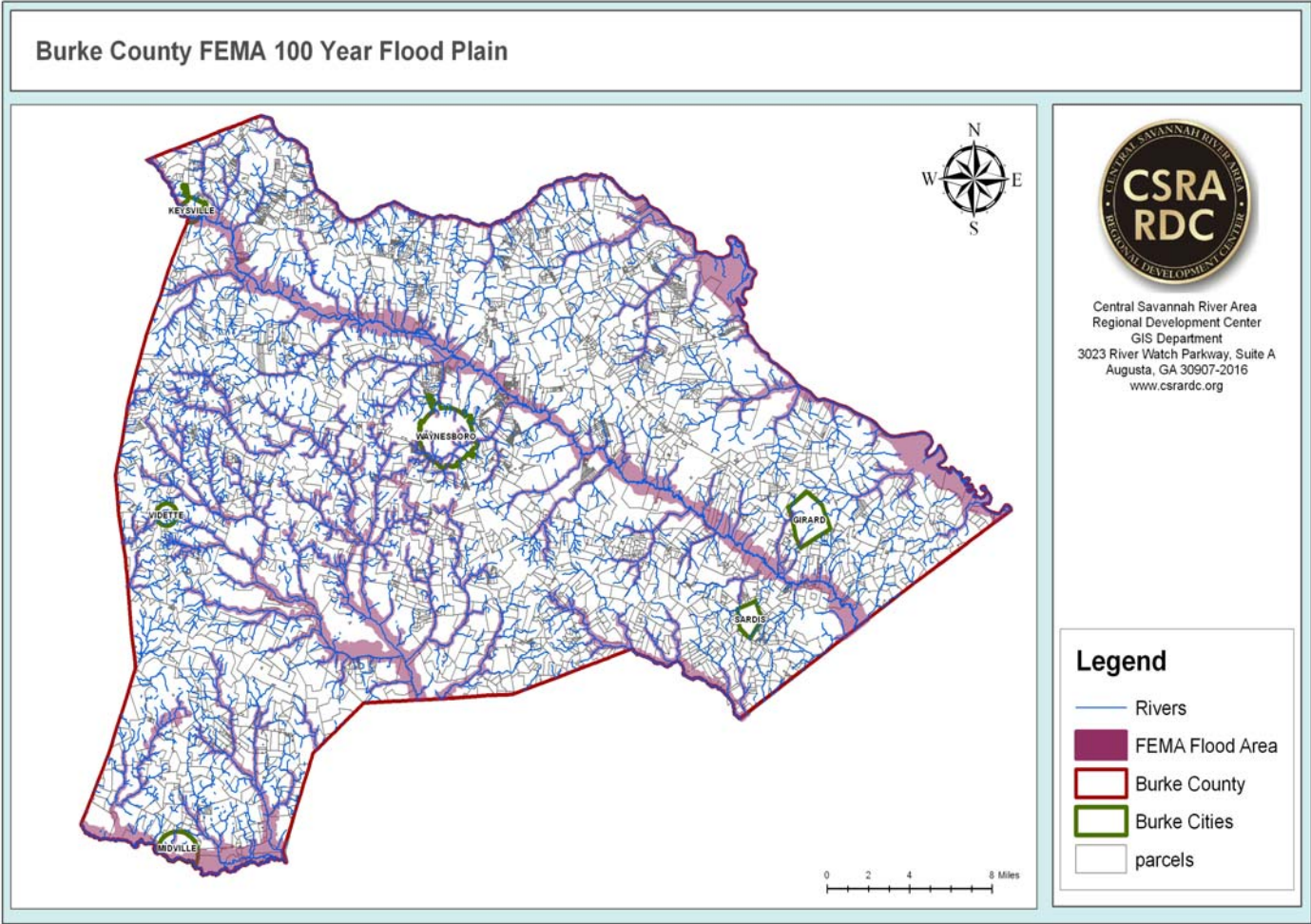
SECTION I – FLOODING

- A. Hazard Identification** – The susceptibility of a stream to flooding is dependent upon several different variables. Among these are topography, ground saturation, rainfall intensity and duration, soil types, drainage, drainage patterns of streams, and vegetative cover. A large amount of rainfall over a short time period can result in flash flood conditions. A small amount of rain can also result in floods in locations where the soil is saturated from a previous wet period or if the rain is concentrated in an area of impermeable surfaces such as large parking lots, paved roadways, etc. Topography and ground cover are contributing factors for floods in that water runoff is greater in areas with steep slopes and little or no vegetation. The Burke County PDM Planning Committee examined historical data from the National Climatic Data Center and past newspaper articles during its research on the effects of flooding in Burke County
- B. Hazard Profile** – Severe flooding within Burke County is a relatively infrequent event. The County has 85 streams/rivers, 53 reservoirs, and 9 lakes which makes the potential for flooding significant. Flash flooding occurs when the ground becomes saturated with water that has fallen too quickly to be absorbed. The runoff collects in low-lying areas and rapidly flows downhill. It also occurs when riverbanks overflow due to rainfall. Flash floods most often occur in normally dry areas that have recently received precipitation. Significant damage caused by flooding has been minimal and dollar amounts associated with the damage have not been reported to this date. Flash flooding is the most prominent occurring event in Burke County.

The flood hazard map from the GEMA mapping system has the entire county with a hazard score of zero (outside flood zone) except for known floodplains located in Burke County, Girard, Keysville, Midville, Vidette and Waynesboro. These flood plains all have a hazard score of three and possess the following characteristics:

Score	Original Value	Description
3	A	1% Annual Chance no BFE
	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
	AR	1% Federal flood protection system

Source: GEMA online mapping system



Source: FEMA FLOOD MAPS



Based on interviews, newspaper articles and best available data from the NCDC there have been three flooding events in the last 56 years. The table below describes the event and cost estimates of damage if available.

Date	Damage Reported	Cost
10/04/1995	None reported	None reported
07/26/2003	EOC reported flash flooding across roads in southern portions of the county. Hwy 56 was temporarily closed along with a few other roads. 10 Miles South West of Waynesboro	None reported
09/03/2006	Highway Dept. reported flooding on secondary roads off of Highway 23, 56, and 80 northeast of Waynesboro. Flooding was also reported on secondary roads in the Keysville area. 5 Miles North East of Waynesboro	None reported

Source: *The True Citizen* and NCDC

The above flooding events were reported for the county as a whole. **Data is incomplete for the individual jurisdictions.** Based on 56 years of data there is a 5.36% chance of an annual flooding event for Burke County. Due to the lack of available data it is impossible to determine the probability of an annual event for individual jurisdictions. The Hazard Frequency Tables are included in Appendix D.

C. Assets Exposed to Hazard – Based on the GEMA online mapping system, most of unincorporated Burke County and the Cities of Girard, Keysville, Midville, Sardis, and Vidette all have a hazard score of zero where property is located outside of the flood zone. Based on FEMA flood maps the following assets in each jurisdiction may be exposed to flood hazard:

- Girard has two structures/properties with a population of 10.
- Keysville has seven structures/properties with a population of 25.
- Midville has six structures/properties with a population of 18.
- Sardis has no known structures/properties located in a flood area.
- Vidette has one structure/property with a population of 4.
- Waynesboro has 67 structures/properties with a population of 288.
- Unincorporated Burke County has 930 structures/properties with a population of 945.

Floodplain maps are available for Burke County and all jurisdictions and can be found in Appendix A. Worksheet #3a in Appendix D breaks down the data for each of these jurisdictions.

The GEMA critical facilities online mapping tool revealed that no critical facilities are located in a flood prone area and all have a hazard score of zero. The table below shows the breakdown of critical facilities by flood hazard score.

Jurisdiction	Hazard Score	# of Critical Facilities	Daily Occupancy
Burke County Unincorporated	0	53	5,673
Girard	0	2	0



Keysville	0	5	89
Midville	0	6	8
Sardis	0	23	125
Vidette	0	3	0
Waynesboro	0	46	335
TOTAL FOR COUNTY		138	6,230

Source: GEMA online mapping system

Based on best available data, of the 36,721 structures/properties in Burke County with 1013 properties are potentially at risk from a flooding event (*Appendix A and Appendix D*).

Due to its participation in the NFIP, the County adopted a Flood Damage Prevention Ordinance. The ordinance's provisions are designed to:

- Require that uses vulnerable to floods, including facilities, which serve such uses, be protected against flood damage at the time of initial construction
- Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which increase flood heights, velocities, or erosion
- Control filling, grading, dredging and other development which may increase flood damage or erosion
- Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands
- Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters.

Projected changes in land use based on the county's multi-jurisdictional comprehensive plan, has minimal or no change to land use within the incorporated jurisdictions. New growth is projected to be around the main corridor and in the incorporated city of Waynesboro. Land use plans call for protecting floodplains, wetlands, protected river corridors and increasing the minimum lot size for properties within the Plant Vogtel evacuation zone provide opportunities to direct growth away from these areas and into areas better suited for development near existing services and to protect natural resources within development A coordinated land use and infrastructure planning policy would encourage the concentration of new development in and around cities and north Burke County. Land use tables can be found in Appendix B.

D. Estimate of Potential Losses – Based on floodplain maps, tax digests, parcel maps and FEMA worksheet #3a for inventory of assets the following assets are at risk during a flood event:

- Girard has two structures/properties valued at approximately \$40,000 with a population of 10
- Keysville has seven structures/properties valued at \$108,041 with a population of 25
- Midville has six structures/properties valued at approximately \$112,000 with a population of 18
- Sardis has no known structures/properties located in a flood area.

- Vidette has one structures/properties valued at approximately \$120,000 with a population of 4
- Waynesboro has 67 structures/properties valued at approximately \$5 million with a population of 288
- Unincorporated Burke County has 930 structures/properties valued at approximately \$129 million with a population of 945.

Based on tax data, parcel and flood maps there are 1013 known structures/properties valued at slight more than \$116 million that are at risk for a flooding event. All critical facilities have a hazard score of zero and are not at risk from a flood event based on GEMA online mapping reports (*Appendix A Section and Appendix D*).

E. Land Use and Development Trends – The Burke County Comprehensive Plan indicates that all land use controls should be attentive to environmentally sensitive areas. Specifically, the comprehensive plan states that the County and municipalities should attempt to encourage development away from watersheds, groundwater recharge areas, wetlands, floodplains, and primary agricultural lands. With this in mind Burke County adopted a Flood Damage Prevention Ordinance. The ordinance’s provisions are designed to:

- Require that uses vulnerable to floods, including facilities, which serve such uses, be protected against flood damage at the time of initial construction
- Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which increase flood heights, velocities, or erosion
- Control filling, grading, dredging and other development which may increase flood damage or erosion
- Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands
- Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters (*See Appendix B*).

F. Multi-Jurisdictional Concerns – Floodplain maps for the entire County and all cities are available. Sardis was included in the Burke County 1986 flood mapping. All jurisdictions need to update their FIRM maps. Also during a natural hazard it is imperative that all emergency personnel can communicate with each other throughout the entire planning area. The County and its jurisdictions have numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The County and its emergency personnel are dependent on the private sector for towers to use for signals. If these towers are ever removed the County will be without any adequate means to transmit signals. The County and all jurisdictions are aware of the need to develop communication capabilities that will serve their County. Another concern is the lack of available data for the county and individual jurisdictions. A database needs to be created and maintained that provides information on all hazards that occur.

Since flooding has the potential to affect all of Burke County, any mitigation steps taken related to flooding should be undertaken on a countywide basis and include the Cities of Girard, Keyville, Midville, Sardis, Vidette, and Waynesboro.

G. Hazard Summary – There have been three flooding events recorded in the last 56 years. These events resulted in roads washing out and minimal property damage. The Burke County Hazard Frequency table calculates a 5.36% chance of an annual flooding event. *The chance of an annual flooding event for incorporated jurisdictions cannot be determined due to a lack of data.* Hazard frequency tables can be found in Appendix D for all jurisdictions. Severe flooding, although relatively rare in occurrence, has the potential to inflict significant damage in Burke County. Mitigation of flood damage requires the community to know where flood prone areas are, what roads and bridges may be affected, and which facilities fall below anticipated flood levels. The Burke County PDM Planning Committee recognized the potential for losses caused by flooding and identified it as a hazard requiring mitigation measures. Based on tax data, parcel and flood maps all or a portion of 1013 known structures/properties valued at approximately \$116 million are located in a known floodplain and are at risk from a flooding event. The planning committee identified specific mitigation goals, objectives and action items related to flooding, which can be found in Chapter 4, Section I.

SECTION II – DROUGHT

- A. Hazard Identification** – The planning committee reviewed historical data from the National Climatic Data Center, The Georgia Department of Natural Resources, the Georgia Forestry Commission and the local newspaper in researching drought conditions in Burke County. Drought conditions are identified by a prolonged period of moisture deficiency. Climatologists and hydrologists use five indicators of drought: rainfall, soil moisture, stream flows, lake levels and groundwater level. Drought conditions affect the cultivation of crops as well as water availability and water quality. Drought is also a key factor in wildfire development. Wildfire will be addressed in a separate HRV.
- B. Hazard Profile** – Drought is not spatially defined and has the potential to affect the entire planning area equally. According to the USDA 2002 Census of Agriculture, Burke County has 218,954 acres of agricultural land and 21,076 head of livestock. Agricultural losses due to drought have been the primary losses. No critical facilities have sustained any damage or functional downtime due to dry weather conditions. There have been 19 reported drought events in the last 56 years. Damage estimates are available for these events within the county exceed \$20 million. Based on best available data there is a 33.93% chance of an annual significant drought event. The chance for an annual drought event is the same for the county as well as all jurisdictions.
- C. Assets Exposed to Hazard** – Drought conditions typically pose little or no threat to structures, however, fires can occur as a result of dry weather. The greatest threat to assets in the county is to the agricultural properties and livestock. The planning committee concluded that drought, in itself, presents no credible threat to critical facilities. FEMA Worksheets #3a located in Appendix D shows the number and types of buildings as well as the value of these structures and the population found in each jurisdiction, the unincorporated areas of Burke County and the county as a whole.

The number of agriculture structures/properties that could potentially be affected by drought conditions is:

- Girard has 40 agricultural properties;
- Keysville has 8 agricultural properties;
- Midville has 14 agricultural properties;
- Sardis has 14 agricultural properties;
- Vidette has 2 agricultural properties;
- Waynesboro has 16 agricultural properties;
- Unincorporated Burke County has 5,340 agricultural properties.

There are a total of 5,434 agricultural properties in all of Burke County that are at the greatest risk due to a drought event (*Appendix A and Appendix D*).

D. Estimate of Potential Losses –No damage to facilities is anticipated as a result of drought conditions. Crop damage cannot be accurately quantified due to several unknown variables: duration of the drought, temperatures during the drought, severity of the drought, different crops require different amounts of rainfall, and different growing seasons. Based on FEMA worksheet #3a the potential loss in agricultural properties for each jurisdiction is:

- Girard has 40 agricultural properties valued at approximately \$2 million;
- Keysville has 8 agricultural properties valued at approximately \$306,752;
- Midville has 14 agricultural properties valued at approximately \$502,538;
- Sardis has 14 agricultural properties valued at approximately \$409,877 ;
- Vidette has 2 agricultural properties valued at approximately \$242,273;
- Waynesboro has 16 agricultural properties valued at approximately \$918,135;
- Unincorporated Burke County has 5,340 agricultural properties valued at approximately \$56 million.

There are 5,434 agricultural properties with a value slightly more than \$603 million of agricultural property located in Burke County, which has the greatest potential to be damaged by drought. While drought is also a key factor in wildfire development it will be addressed in a separate HRV assessment (*Appendix A and Appendix D*).

E. Land Use and Development Trends – Burke County currently has no land use or development trends related to drought conditions. Projected changes in land use based on the county’s multi-jurisdictional comprehensive plan, has minimal change to land use within the incorporated jurisdictions. New residential growth is projected in North Burke County as spillover from adjacent Augusta-Richmond County. The greatest change in land use and future development has a decrease in forest land that will be converted to residential. Since it is impossible to determine where future residents will move in the unincorporated areas of the county vulnerability in terms of future buildings, infrastructure and critical facilities is not known at this time. Land use information can be found in Appendix B.

F. Multi-Jurisdictional Concerns – Agricultural losses associated with drought are more likely to occur in the rural, less concentrated areas of the county. Although the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro are less likely to experience drought related losses, it should not be excluded from mitigation considerations. Another concern is

the lack of available data for the county and individual jurisdictions. A database needs to be created and maintained that provides information on all hazards that occur.

- G. Hazard Summary** –Droughts do not have the immediate effects of other natural hazards, but sustained drought can cause severe economic stress to not only the agricultural interests in Burke County, but to the entire State of Georgia. The potential negative effects of sustained drought are numerous. Drought is not spatially defined and it has the potential to affect the entire planning area.

According to the USDA 2002 Census of Agriculture Burke County has 218,954 acres of agricultural land and 21,076 head of livestock. Agricultural losses due to drought have been the primary losses. No critical facilities have sustained any damage or functional downtime due to dry weather conditions. Burke County is just now recovering from drought conditions that began in March of 2007 and have lasted into 2008. There have been 3 reported drought events in the last 55 years based on available data resulting in more than \$20 million in crop losses. Based on best available data there is a 6% chance of an annual significant drought event in Burke County and all jurisdictions. In addition to an increased threat of wildfires, drought can affect municipal and industrial water supplies, stream-water quality, water recreation facilities, hydropower generation, as well as agricultural and forest resources.

In summary, there are 5,434 agricultural properties with a value slightly less than \$465 million located in Burke County, which has the greatest potential to be damaged by drought. There is a population of 22,243 and approximately 36,721 structures in the county totaling more than \$4 billion which could be affected if wildfires break out as a result of drought conditions. Mitigation Goals and Objectives concerning droughts can be found in Chapter 4, Section II.

SECTION III – WILDFIRE

- A. Hazard Identification** – A wildfire is any uncontrolled fire occurring on undeveloped land that needs fire suppression. The potential for wildfire is influenced by three factors: the presence of fuel, the area's topography and air mass. There are three different classes of wildland fires. A surface fire is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire is usually started by lightning and burns on or below the forest floor. Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. Wildfires are usually signaled by dense smoke that fills the area for miles around. Wildfires by lightning have a very strong probability of occurring during drought conditions. Drought conditions make natural fuels (grass, brush, trees, dead vegetation) more fire-prone.
- B. Hazard Profile** – Burke County is comprised of 514,304 acres of which 390,871 are forest and agricultural land. Given the right weather conditions and variables wildfire, due to natural causes creates, a potential threat to the residents and property in the planning area. The NCDC has never reported a significant wildfire event in Burke County. The planning committee reviewed historical data from the Georgia Forestry Commission database to research wildfire events in Burke County. The GFC provides wildfire data on man-made and natural wildfire occurrences for the county as a whole and not for individual jurisdictions.

This plan will address only natural disasters. According to the data from 1957 to 2005 there have been 5,562 fire events burning a total of 70,871 acres of which 92 were the result of lightning strikes burning 17,638 acres. All of the 92 wildfire events resulting from lightning occurred in the unincorporated areas of the county. Based on the Burke County Hazard Frequency Table, found in Appendix D, there is a 191.67% chance of an annual fire due to lightening strike. The drier the condition the more susceptible the County is to wildfire (*See Appendix D*).

C. Assets Exposed to Hazard – While wildfires are more likely to occur in the county outside of the incorporated areas, the planning committee concluded that wildfires present a threat to all existing buildings, infrastructure and critical facilities since wildfires can spread throughout the county and into the urban areas. The following assets by jurisdiction have the potential to be exposed to a wildfire hazard.

Jurisdiction	# of Structure/Properties	Population
Burke County Unincorporated	27,599	14,283
Girard	249	227
Keysville	375	180
Midville	906	457
Sardis	1,435	1,171
Vidette	204	112
Waynesboro	5,959	5,813
TOTAL FOR COUNTY	36,727	22,243

Source: Burke County Tax Assessor

FEMA Worksheets #3a located in Appendix D shows the number and types of buildings found in Burke County, as well as the value of these structures and the population. Based on the GEMA critical facility online mapping system, the table below shows the number of critical facilities by jurisdictions, hazard score, and daily occupancy.

Jurisdiction	Hazard Score	# of Critical Facilities	Daily Occupancy
Burke County	4	4	50
Burke County	2	17	5,223
Burke County	1	9	400
Burke County	0	23	0
Girard	0	2	0
Keysville	1	5	89
Midville	1	6	8
Sardis	1	21	125
Sardis	0	2	0
Vidette	1	3	0
Waynesboro	4	15	178
Waynesboro	3	4	0



Waynesboro	2	19	83
Waynesboro	0	8	74

GEMA’s mapping system assigned the following wildfire hazard scores for each jurisdiction:

- Hazard Score of four (high wildfire risk)
 - Waynesboro - approximately 6% of the city

- Hazard Score of three (moderate wildfire risk)
 - Waynesboro - approximately 3% of the city

- Hazard score of two (low wildfire risk)
 - Unincorporated areas of the County – approximately 5%
 - Waynesboro - approximately 89% of the city

- Hazard score of one (very low wildfire risk)
 - Unincorporated areas of the County – approximately 45%
 - Girard - approximately 35% of the city
 - Keysville – approximately 98% of the city
 - Midville – approximately 99.8% of the city
 - Sardis – approximately 97% of the city
 - Vidette– approximately 98% of the city

- Hazard score of zero (no houses, agriculture, water, or city)
 - Unincorporated areas of the County – approximately 40%
 - Girard - approximately 65% of the city
 - Keysville – approximately 2% of the city
 - Midville – approximately 0.2% of the city
 - Sardis – approximately 3% of the city
 - Vidette– approximately 2% of the city
 - Waynesboro – approximately 2% of the city

A map of each jurisdiction can be found in Appendix A. For the entire county, there are 36,727 structures/properties. The County has 343,772 acres of accessible forestry and woodlands that could be destroyed by a wildfire incident.

D. Estimate of Potential Losses – Damages as a result of a wildfire event from a natural cause such as lightening are more likely to occur in unincorporated areas of the County where forestry and woodland are prevalent. Wildfire has the potential to spread into the incorporated areas and cause extensive damage to existing structures. The following table reveals the assets for each jurisdiction. A complete breakdown of assets for each jurisdiction can be found in Appendix D.

Jurisdiction	Number of Structure/Properties	Assessed Value
Burke County Unincorporated	27,599	3,833,370,225
Girard	249	5,004,914



Keysville	375	5,787,932
Midville	906	16,978,607
Sardis	1,435	27,213,083
Vidette	204	3,287,497
Waynesboro	5,959	334,046,606
TOTAL FOR COUNTY	36,727	4,225,688,864

The following table reveals all critical facilities in the County by jurisdiction, number of facilities, hazard score, replacement value, and daily occupancy. A complete breakdown of each jurisdiction by hazard can be found in Appendix A.

Responsible Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value \$	Daily Occupancy
Burke County	4	4	2,889,190	50
Burke County	2	17	86,075,474	5,223
Burke County	1	9	9,872,020	400
Burke County	0	23	4,802,626	0
Girard	0	2	521,344	0
Keysville	1	5	6,877,088	89
Midville	1	6	936,536	8
Sardis	1	21	11,213,514	125
Sardis	0	2	110,000	0
Vidette	1	3	257,065	0
Waynesboro	4	15	7,913,341	178
Waynesboro	3	4	3,942,712	0
Waynesboro	2	19	12,986,201	83
Waynesboro	0	8	15,603,626	74
TOTAL FOR COUNTY		138	164,000,737	6,230

GEMA’s online mapping system reveals the wildfire hazard score for critical facilities located in the planning area.

- 19 have wildfire hazard score of four (high probability);
- 4 have wildfire hazard score of three (moderate probability);
- 36 have wildfire hazard score of two (low probability);
- 44 have a hazard score of one (very low probability); and
- 35 have a hazard score of zero (no houses, agriculture, water, or city).

The 103 critical facilities having a wildfire hazard score greater than zero has an estimated potential loss of \$142,963,141. The estimated loss for all critical facilities is \$164,000,737. According to GEMA worksheet #3a there is a population of 22,243 and approximately 36,721 structures in the county totaling more than \$4 billion countywide. If a wildfire started,



it is not likely that all of these structures would be affected (*See Appendix A and Appendix D*).

- E. Land Use and Development Trends** – Burke County currently has no land use or development trends related to wildfire conditions. Land use codes do provide for fire protection to any proposed major and minor developments connected to the public water supply system, and minimum fire flows shall be computed based on standards promulgated by the Burke County Fire Department. For those proposed developments that will not have immediate access to the public water supply system, such standards and computations should be based on the National Fire Protection Association Standards on Water Supply for Suburban and Rural Fire Fighting.

Projected changes in land use based on the county's multi-jurisdictional comprehensive plan, has minimal change to land use within the incorporated jurisdictions. New residential growth is projected in North Burke County as spillover from Augusta-Richmond County. The greatest change in land use and future development has a decrease in forest land that will be converted to residential. Since it is impossible to determine where future residents will move in the unincorporated areas of the county vulnerability in terms of future buildings, infrastructure and critical facilities is not known at this time. Land use information can be found in Appendix B.

- F. Multi-Jurisdictional Concerns** – The majority of Burke County is wood, forest or agricultural land. GEMA's mapping reveals that the county has areas that score four (high risk), three (moderate risk) and two (low risk). For the rest of the county approximately 45% has a hazard score of one (very low wildfire risk) and the rest of the County, 45% has a hazard score of zero (no houses, agriculture, water, or city).

If a wild fire hazard occurs it is imperative that all emergency personal can communicate with each other throughout the entire planning area. The County and its jurisdictions have numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The County and its emergency personnel are dependent on the private sector for towers to use for signals. If these towers are ever removed the County will be without any adequate means to transmit signals. The County and all jurisdictions are aware of the need to develop communication capabilities that will serve their County.

Wildfire does have the potential to spread to urban areas thus affecting the entire County. As a result, any mitigation steps taken related to wildfire should be undertaken on a countywide basis and include the Cities of Girard, Keysville, Midville, Sardis, Vidette and Waynesboro.

- G. Hazard Summary** – Burke County is comprised of 514,304 acres of which 390,871 are forest and agricultural land. Given the right weather conditions and variables wildfire, due to natural causes creates, are a potential threat to the residents and property in the planning area. According to Georgia Forestry data, from 1957 to 2005, there have been 92 wildfires as a result of lightning strikes burning 17,638 acres.

Based on the GEMA critical facility online mapping system there are 103 critical facilities having a wildfire hazard score greater than zero with an estimated loss of \$142,963,141. The

remaining 35 critical facilities have a hazard score of zero (no houses, agriculture, water, or city). The loss for all critical facilities is \$164,000,737. There is a population of 22,243 and approximately 36,721 structures totaling more than \$4 billion worth of assets countywide. Mitigation Goals and Objectives concerning wildfires can be found in Chapter 4, Section III.

SECTION IV – SEVERE WEATHER, INCLUDING TORNADOS, TROPICAL STORMS, THUNDERSTORM WINDS

A. Hazard Identification – The planning committee reviewed historical data from the County’s own weather database, the National Climatic Data Center, newspapers and citizen interviews in researching the past affects of severe weather. The month of February marks the beginning of the severe weather season in the South, which can last until the month of August. Three types of severe weather were identified by the mitigation team: (1) tornados, (2) tropical storms and (3) thunderstorm winds.

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm or the result of a hurricane and is produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of the high wind velocity and wind-blown debris. The Fujita Scale (below) is used to rate the intensity of a tornado by examining the damage caused by the tornado after it has passed over a man-made structure.

SCALE	WIND (MPH)	TYPICAL DAMAGE
F0	< 73	Light damage. Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
F1	73-112	Moderate damage. Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads.
F2	113-157	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
F3	158-206	Severe damage. Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.
F4	207-260	Devastating damage. Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown and large missiles generated.
F5	261-318	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 meters (109 yds.); trees debarked; incredible phenomena will occur.

Source: NOAA

Tornados are among the most unpredictable and destructive of weather phenomena and can strike at any time of the year if the essential conditions are present. The positions of the subtropical and polar jet streams often are conducive to the formation of storms in the Gulf region.



The second type of severe weather is tropical storms. Tropical Storms are an organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39–73 MPH (34–63 knots). In this area they generally occur as a result of a hurricane or tropical system that has come inland.

The third severe weather event, thunderstorm winds can cause death and injury, power outages, disrupt telephone service, property damage, severely affect radio communications and surface/air transportation, which may seriously impair the emergency management capabilities of the affected jurisdictions.

Thunderstorm winds are winds that arise from convection (with or without lightning), with speeds of at least 50 knots (58 mph), or winds of any speed producing a fatality, injury, or damage. Severe thunderstorms develop powerful updrafts and downdrafts. An updraft of warm, moist air helps to fuel a towering cumulonimbus cloud reaching tens of thousands of feet into the atmosphere. A downdraft of relatively cool, dense air develops as precipitation begins to fall through the cloud. Winds in the downdraft can reach in excess of 100 miles per hour. When the downdraft reaches the ground it spreads out forming a gust front: the strong wind that kicks up just before the storm hits. As the thunderstorm moves through the area, the full force of the downdraft in a severe thunderstorm can be felt as horizontal, straight - line winds with speeds well over 50 miles per hour. Straight - line winds are often responsible for most of the damage associated with a severe thunderstorm. Damaging straight - line winds occur over a range of scales. At one extreme, a severe single-cell thunderstorm may cause localized damage from a microburst, a severe downdraft extending not more than about two miles across. In contrast, a powerful thunderstorm complex that develops as a squall line can produce damaging winds that carve a path as much as 100 miles wide and 500 miles long.

B. Hazard Profile – Tornadoes, tropical storms and thunderstorm winds can affect the entire county given the right conditions. Since the exact time and location of a severe weather event is not always predictable all of Burke County is vulnerable to the threats of severe weather.

Based on historical data there have been 10 reported tornado events in the last 131 years with reported damages of more than \$3 million. The highest magnitude reported was a F3. In 1963 five injuries were reported and 19 injuries in 1972. The Hazard Frequency Table located in Appendix D predicts a 7.63% probability of an annual tornado event. Tornadoes tend to strike in somewhat random fashion, making the task of calculating a recurrence interval extremely difficult. The following table shows the event by jurisdiction, severity and estimate cost of damages reported.

Jurisdiction	Date	Reported Damages	Magnitude	Property Damage	Injury
BURKE	03/20/1875	Property damage	NR	NR	0
BURKE	09/28/1963		F2	250K	5
BURKE	01/13/1972		F3	2.5M	19



BURKE	04/23/1983		F0	250K	0
BURKE	04/14/1984		F1	25K	0
Waynesboro	09/15/2002	A small F0 briefly touched down at 153 Eagle Pass Court and destroyed 1 metal shed and did minor damage to 2 mobile homes.	F0	5K	0
Midville	12/28/2005	The Emergency Manager and Georgia Power reported an F1 touched down on Davis Bennett road and took down some trees, power lines, and blew the roof off an uninhabited brick home. Trees and power lines were also down on Herndon road.	F1	15K	0
Sardis	12/28/2005	An F0 tornado touched down intermittently along a path from near the intersection of Creek and Claxton roads to a Cypress Pond road NE of Girard. Only trees were taken down. This was the second tornado produced by the same supercell that spawned another tornado north to northeast of Midville.	F0	0	0
BURKE	01/02/2006	1/10 of a mile wide and covered a four mile path resulting in property damage, downed trees. In the Cypress Road Pond Area near Girard resulting in downed trees. Nickel Size hail and downed trees around Midville.	F1	0	0
Waynesboro	05/27/2006	Damaged vehicles, downed powerlines,		0	0
			TOTALS	3.045M	24

Source: NCDC and The True Citizen

There have been 10 tropical storms reported in Burke County in the last 56 years. Damages as a result of the storms were due power outages, down trees and flash flooding. The tropical storms affected the entire planning area. **Data for each jurisdiction is not available.** Based on the hazard frequency table there is 17.86% chance for an annual tropical storm event for all jurisdictions (See Appendix D).

Date	Type	Reported Damage	Mag	\$
09/14/1999	Tropical Storm	Result of Hurricane Floyd		
09/14/2002	Tropical Storm	Tropical Storm Hanna	0	
07/01/2003	Tropical Depression	Tropical Depression Bill	0	
09/06/2004	Tropical Storm	Hurricane Frances	0	
09/16/2004	Tropical Storm	Hurricane Ivan	0	
09/26/2004	Tropical Storm	Hurricane Jeanne	0	
06/12/2005	Tropical Storm	Tropical Storm Arlene	0	
07/10/2005	Hurricane/typhoon	Hurricane Dennis	0	



08/29/2005	Hurricane/typhoon	Hurricane Katrina	0	0
10/05/2005	Tropical Storm	Tropical storm Tammy	0	0

Source: NCDC, GEMA and The True Citizen

Thunderstorms are much more prevalent in Burke County. During the spring and summer months the County experiences numerous storms that often carry with them strong winds. Over the past 56 years, 78 separate thunderstorms with over \$39,500 in property damages and 3 injuries have been reported to the NCDC. The table below breaks down the thunderstorm events by jurisdiction. A list of storm events for each jurisdiction and the entire county can be found in Appendix D.

THUNDERSTORM EVENT HISTORICAL DATA					
Location	# of Events	County-Wide Events*	Total # of events per jurisdiction	Highest Magnitude	Property Damage
Girard	7	32	39	60 knots	1k
Keysville	3	32	35	60 knots	0
Midville	9	32	41	60 knots	6.K
Sardis	6	32	38	60 knots	11.5K
Vidette	0	32	32	60 knots	
Waynesboro	21	32	53	60 knots	21K
Burke County (unincorporated)	32	NA	32	60 knots	0
Burke County all	78	78	78	60Knots	39.5K

Source: NCDC* It is assumed that all 32 county-wide events reported occurred in each jurisdiction

Using 56 years of data the frequency per year for a significant thunderstorm event for each jurisdiction is:

- Girard 69.64%
- Keysville 48.21%
- Midville 73.21%
- Sardis 67.81%
- Vidette 57.14%
- Waynesboro 94.64%

Burke County as a whole has an overall probability for a significant thunderstorm event of 139.29%. Hazard Frequency Tables for individual jurisdictions can be found in Appendix D

C. Assets Exposed to Hazard – In evaluating assets exposed to the natural hazard, the committee determined that all critical facilities, as well as all public, private and commercial property, are susceptible to tornados, tropical storms and thunderstorms. The GEMA online mapping system has the entire county with a wind hazard score of two, where wind speed is between 90 to 99 mph. GEMA Worksheets #3a located in Appendix D show the number and types of buildings as well as the value of these structures and the population for each



individual jurisdiction and the County as a whole. There are 36,727 structures located within the County with a population of 22,243.

All 138 critical facilities have a wind hazard score of two. The table below shows the number of critical facilities for each jurisdiction with hazard score and population.

Jurisdiction	Hazard Score	# of Critical Facilities	Daily Occupancy
Burke County Unincorporated	2	53	5,673
Girard	2	2	0
Keysville	2	5	89
Midville	2	6	8
Sardis	2	23	125
Vidette	2	3	0
Waynesboro	2	46	335
TOTAL FOR COUNTY		138	6,230

GEMA critical facility online mapping system reports for wind and GEMA Worksheets #3a are located in Appendix D for each individual jurisdiction and the County as a whole (*Appendix A and Appendix D*).

- D. Estimate of Potential Losses** – The planning committee determined that all existing critical facilities, as well as all public, private and commercial property, are susceptible to thunderstorm winds, tropical storms and tornados. The table below provides data from FEMA worksheets #3a that estimate the potential loss for each jurisdiction.

Jurisdiction	Number of Structure/Properties	Assessed Value	Population
Burke County Unincorporated	27,599	3,833,370,225	14,283
Girard	249	5,004,914	227
Keysville	375	5,787,932	180
Midville	906	16,978,607	457
Sardis	1,435	27,213,083	1,171
Vidette	204	3,287,497	112
Waynesboro	5,959	334,046,606	5,813
TOTAL FOR COUNTY	36,727	4,225,688,864	22,243

All 138 critical facilities have a hazard score of two placing the critical facilities in Zone IV which has a wind speed of 90 to 99 mph. The table below shows the number of critical facilities by jurisdictions, hazard score, daily occupancy and replacement value.

Jurisdiction	Hazard Score	# of Critical Facilities	Replacement Value \$	Daily Occupancy
Burke County Unincorporated	2	53	103,639,310	5,673



Girard	2	2	521,344	0
Keysville	2	5	6,877,088	89
Midville	2	6	936,536	8
Sardis	2	23	11,323,514	125
Vidette	2	3	257,065	0
Waynesboro	2	46	40,445,880	335
TOTAL FOR COUNTY		138	164,000,737	6,230

E. Land Use & Development Trends – Burke County is located in wind zone III as determined by the American Society of Civil Engineers, which is associated with 200-mph wind speeds. Currently, the County has no land use or development trends related to thunderstorm or tropical storm winds or tornados.

Projected changes in land use based on the county’s multi-jurisdictional comprehensive plan, has minimal change to land use within the incorporated jurisdictions. New residential growth is projected in North Burke County as spillover from Augusta-Richmond County. Since it is impossible to determine where future residents will move in the unincorporated areas of the county vulnerability in terms of future buildings, infrastructure and critical facilities is not known at this time. It can be surmised that this will be bring an increase in population and efforts must be made to ensure that new homes are built to code for wind. Land use information can be found in Appendix B.

F. Multi-Jurisdictional Concerns – All of Burke County has the same design wind speed of 200 mph as determined by the American Society of Civil Engineers (ASCE). During a natural hazard it is imperative that all emergency personal can communicate with each other throughout the entire planning area. The County and its jurisdictions have numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The County and its emergency personnel are dependent on the private sector for towers to use for signals. If these towers are ever removed the County will be without any adequate means to bounce signals. The County and all jurisdictions are aware of the need to develop communication capabilities that will serve their County. Another concern is the lack of available data for the county and individual jurisdictions. A database needs to be created and maintained that provides information on all hazards that occur

The entire County has the potential to be affected by severe weather events and any mitigation steps taken should be considered on a county-wide basis and include the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro.

G. Hazard Summary – Overall, severe weather in the form of thunderstorm winds pose one of the greatest threats to Burke County in terms of property damage, injuries, and loss of life. Therefore, the planning committee recommends that the PDM measures identified in this plan should be aggressively pursued. Tornados do not touch down as frequently; however, the unpredictability and the potential for excessive damage caused by tornados makes it imperative that the PDM measures identified in this plan receive full consideration. Based on available historical data there have been 10 tornados, 10 tropical storms and 78 thunderstorm



events in Burke County with a combined cost estimate for damages of more than \$3 million. The GEMA online mapping system has the entire county with a wind hazard score of two, where wind speed is between 90 to 99 mph. All 138 critical facilities have a wind hazard score of two with a replacement cost of \$164,000,737. To summarize, there are approximately 37,727 structures in the County totaling slightly more than \$4 billion with a populations of 22,243. A breakdown of information for individual jurisdictions can be found in Appendix A and Appendix D. Specific mitigation actions for thunderstorm, tropical storm winds and tornados are identified in Chapter 4, Section IV.

SECTION V – WINTER STORMS

- A. Hazard Identification** – Southeastern snow or ice storms often form when an area of low pressure moves eastward across the northern Gulf of Mexico. To produce a significant winter storm in the south, not only must temperatures be cold enough, but there must also be enough moisture in the atmosphere to produce adequate precipitation. A major winter storm can last for several days and be accompanied by high winds, ice and freezing rain, heavy snowfall, and cold temperatures. These conditions can make driving conditions very dangerous, as well as bring down trees and power lines.
- B. Hazard Profile** – Winter storms are not spatially defined and affect the entire planning equally. The planning committee researched historical data from the National Climatic Data Center, the National Weather Service, as well as information from past newspaper articles relating to winter storms in Burke County. Research indicates that there have been 15 severe winter storms recorded for Burke County in the past 56 years. *Data for each jurisdiction is not available.* These 15 storms effected county has a whole. Although winter storms are infrequent in the south, they have the potential to cause excessive damage to a community and disrupt the lives of residents. Based on the Burke County Hazard Frequency Table located in Appendix D there is a 26.79% chance of an annual winter storm event. *The percentage is the same for all jurisdictions.*

Date	Type	Damage Reported
Dec 1958	snow	.50 inches
Feb 1967	snow	1.5 inches
Feb 1973	snow	16.00 inches
Feb 1978	snow	2.50 inches
Feb 1980	snow	2.00 inches
Feb 1981	snow	.30 inches
Jan 1982	snow	.30 inches
Jan 1983	snow	.30 inches
Feb 1989	snow	3 inches
Feb 1996	snow	Feb .20
Jan 2000	snow	Jan 1.30 inches

01/02/2002	Ice Storm	Freezing rain and sleet fell ice accumulations of 1/2 to 1 inch. Trees and powerlines were dropped ended with a 1 to 3 inch snowfall.
01/26/2004	Ice Storm	400 customers without power
12/26/2004	Ice Storm	Power outages to around 3,000 customers
01/29/2005	Ice Storm	

Source: NCDC and The True Citizen and SC SNR

C. Assets Exposed to Hazard – In evaluating assets that may potentially be impacted by the effects of winter storms, the committee determined that all critical facilities, as well as all public, private and commercial property, are susceptible. The following assets by jurisdiction are at potential risk of damage from a winter storm event:

- Girard has 249 structures/properties with a population of 227;
- Keysville has 375 structures/properties with a population of 180;
- Midville has 906 structures/properties with a population of 457;
- Sardis has 1,435 structures/properties with a population of 1,171;
- Vidette has 204 structures/properties with a population of 112;
- Waynesboro has 5,959 structures/properties with a population of 5,183;
- Unincorporated Burke County 27,599 structures/properties with a population of 14,283.

GEMA online mapping system does not provide a report for winter storm damage but there are 138 critical facilities exposed to winter storm hazards. According to GEMA Worksheet #3a there are 36,727 structures County wide with a population of 22,243 exposed to the hazard (See Appendix A, Section VI and Appendix D).

D. Estimate of Potential Losses –Based on FEMA worksheets #3a the estimated potential loss for each jurisdiction is:

Jurisdiction	# of Structure/Properties	Assessed Value	Population
Burke County Unincorporated	27,599	3,833,370,225	14,283
Girard	249	5,004,914	227
Keysville	375	5,787,932	180
Midville	906	16,978,607	457
Sardis	1,435	27,213,083	1,171
Vidette	204	3,287,497	112
Waynesboro	5,959	334,046,606	5,813
TOTAL FOR COUNTY	36,727	4,225,688,864	22,243

Countywide there is slightly more than \$4 billion worth of assets at risk due to winter storm hazard event. GEMA online reports there are 138 critical facilities have a replacement value of \$164,000,737 countywide. The table below shows critical facilities for each jurisdiction.

Jurisdiction	# of Critical Facilities	Replacement Value \$	Daily Occupancy
Burke County Unincorporated	53	103,639,310	5,673



Girard	2	521,344	0
Keysville	5	6,877,088	89
Midville	6	936,536	8
Sardis	23	11,323,514	125
Vidette	3	257,065	0
Waynesboro	46	40,445,880	335

E. Land Use & Development Trends – Burke County currently has no land use or development trends related to winter storms. Projected changes in land use based on the county’s multi-jurisdictional comprehensive plan, has minimal change to land use within the incorporated jurisdictions. New residential growth is projected in North Burke County as spillover from Augusta-Richmond County. Since it is impossible to determine where future residents will move in the unincorporated areas of the county vulnerability in terms of future buildings, infrastructure and critical facilities is not known at this time. It can be surmised that this will be bring an increase in population and homes. Land use information can be found in Appendix B.

F. Multi-Jurisdictional Concerns – During a natural hazard it is imperative that all emergency personal can communicate with each other throughout the entire planning area. The County and its jurisdictions have numerous dead spots throughout the area due to topography and lack of adequate communication equipment. The County and its emergency personnel are dependent on the private sector for towers to use for signals. If these towers are ever removed the County will be without any adequate means to bounce signals. The County and all jurisdictions are aware of the need to develop communication capabilities that will serve their County. Another concern is the lack of available data for the county and individual jurisdictions. A database needs to be created and maintained that provides information on all hazards that occur

All of Burke County can potentially be negatively impacted by winter storms. As a result, any mitigation steps taken related to winter storms should be undertaken on a countywide basis and include the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro.

G. Hazard Summary – There have been fifteen recorded winter storms in the last 56 years. There is a 26.79% chance of an annual winter storm event. Winter storms can be more accurately predicted than most other natural hazards, making it possible to give advance warning to communities. The National Weather Service issues winter storm warnings and advisories as these storms make their way south. Given the infrequency of these types of storms, southern communities are still not properly equipped to sustain the damage and destruction caused by severe winter storms. To summarize, there are approximately 36,727 structures in the County totaling slightly more than \$4 billion with a populations of 22,243. The planning committee recognized the dangers posed by winter storms and identified specific mitigation actions in Chapter 4, Section V.



**CHAPTER 3 – TECHNOLOGICAL HAZARD, RISK AND
VULNERABILITY (HRV) SUMMARY**

Technological hazards were not required to be included in this Hazard Mitigation Plan by the Disaster Mitigation Act of 2000, but may be included in future updates to this plan.



CHAPTER 4 – NATURAL HAZARD MITIGATION GOALS & OBJECTIVES

SECTION I – FLOODING

A. Mitigation Goals – The planning committee determined that due to the presence of flood plains in the County efforts to reduce the level of exposure to flooding should be considered. In previous flooding instances, damage has been sustained primarily to roads, bridges and natural resources. Specific mitigation measures identified by the planning committee are designed to lessen the effects of such damage to new and existing structures in the future.

B. Range of Mitigation Options – The planning committee has identified both structural and non-structural mitigation measures to ensure that the community adequately addresses all relevant flooding issues. This may result in alterations to current policies, land use and building codes if necessary, to ensure that proper mitigation measures are undertaken. In regards to any facilities that are subject to flooding, there are no historic or special considerations that pose extraordinary challenges to the community. Goal #1, Objective 3, 5, 6, and 7 including their action steps address existing structures and future development. Mitigation goals, objectives, and action steps for flooding, as defined by the planning committee, are as follows:

C. Flooding Mitigation Strategy, Actions and Projects

Goal #1

Minimize loss of life, health risks and property damage due to flooding events.

Objective #1

Improve the effectiveness of existing flood insurance programs.

Action Step #1	<i>Review and Adopt floodplain ordinances as needed</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission and City Councils
Time Line	2 years
Cost Estimate	Staff time
Possible Funding Sources	General Funds
Priority	HIGH

Action Step #2	<i>Update FEMA floodplain maps</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission and City Councils
Time Line	2 years
Cost Estimate	\$25,000.00
Possible Funding Sources	FEMA
Priority	HIGH

Objective #2

Evaluate and improve the present drainage infrastructure.

Action Step #1	<i>Continue to assess stormwater runoff.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	HIGH

Action Step #2	<i>Assess and construct as needed, more storm water retention facilities, storm drain improvements and channel improvements to protect existing and new developments.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	All Public Works, Road Departments
Time Line	4 years
Cost Estimate	Unknown
Possible Funding Sources	CDBG, USDA, DNR, EPD, SPLOST
Priority	HIGH

Action Step #3	<i>Review set back requirements from top of banks of creeks and from top of banks of major rivers.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Public Works, Road Department
Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	Medium

Action Step #4	<i>Clear run-off and water retention ditches.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Public Works, Road Department
Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	Medium

Objective #3

Ensure communication capabilities exist between all Emergency Service Personnel and Agencies.

Action Step #1	<i>Seek funding for communication towers and voter repeater systems.</i>
Responsible Organization	All Jurisdictions
Coordinating Organization	EMA
Time Line	2 years
Cost Estimate	\$300,000
Possible Funding Sources	General Fund, FEMA, CJCC, JAG,USDA, DOJ



Priority	HIGH
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Objective #4

Provide a central location for all Emergency operations that can be used by all jurisdictions during a hazard event.

Action Step #1	<i>Seek funding a Multi-Jurisdictional Emergency Operation Center</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, County Commission, City Councils
Time Line	2 years
Cost Estimate	unknown
Possible Funding Sources	General Fund, FEMA, CJCC, JAG,USDA, DOJ, SPLOST
Priority	HIGH

Objective #5

Warn citizens when the potential for flooding exist.

Action Step #1	<i>Install measuring devices in creeks, ponds, etc. to provide a warning when water levels become dangerously high.</i>
Responsible Organization	Burke County Board of Commissions
Coordinating Organization	EMA, Public Works, Road Department
Time Line	3 years
Cost Estimate	Unknown
Possible Funding Sources	General Funds, FEMA, DNR
Priority	MEDIUM

Objective #6

Lessen the impact to existing buildings, critical facilities and infrastructure as a result of flooding.

Action Step #1	<i>Determine the elevation of all critical facilities in known flood areas and mitigate if necessary.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Public Works
Time Line	2 years
Cost Estimate	Staff time
Possible Funding Sources	General Funds, Grants
Priority	HIGH

Action Step #1	<i>Identify property owners who are located in areas continually subject to flooding and relocate or mitigate.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Public Works
Time Line	4 years
Cost Estimate	Unknown

Possible Funding Sources	General Funds, FEMA
Priority	MEDIUM

Objective #7

Limit future development in flood prone areas.

Action Step #1	<i>Review existing comprehensive, development and land use plans to address flood prone areas.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils
Time Line	3 years
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	HIGH

Action Step #2	<i>Adopt ordinances to control building and development in known flood prone areas.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils, Building Inspector
Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	General Fund
Priority	HIGH

Action Step #3	<i>Promote the preservation of areas in and around watercourses.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Commission,
Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	CDBG, USDA, EPA, DNR
Priority	MEDIUM

Action Step #4	<i>Add greenspace to known flood prone areas.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Commission, All City Councils, Public Works
Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	CDBG, USDA, EPA, DNR
Priority	MEDIUM

Objective #8

Reduce the threat of water contamination caused by flooding.

Action Step #1	<i>Cap wells not in use and increase wellhead waterproofing.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Public Works, Health Department

Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	CDBG, USDA, EPA, DNR
Priority	HIGH

Action Step #2	<i>Ensure well head elevations are above known flooding levels.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Public Works, Health Department
Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	General Fund, DNR
Priority	HIGH

Action Step #3	<i>Evaluate existing water systems.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils
Time Line	2 years
Cost Estimate	Unknown
Possible Funding Sources	General Fund, CDBG, USDA, EPA, DNR
Priority	HIGH

D. Multi-Jurisdictional Concerns – Given the right weather conditions, especially heavy sustained rainfall, flooding could occur outside of the known floodplain areas. The County needs to be mapped for floodplains to determine where highest threats exist. Occasional flash flooding from heavy rains may result in standing water on roadways, or a culvert or dry streambed may take on excessive water. All Cities within the County should be active participants in all public information, or education and awareness efforts related to flood mitigation initiatives.

E. Education & Awareness – The planning committee has identified several methods of public education and awareness regarding hazard mitigation. All public information efforts are aimed at keeping the citizens of Burke County fully engaged in the implementation and periodic maintenance of this mitigation plan. Many of these education and awareness tools are multi-hazard in nature and include educating residents, as well as businesses and industry on how to be prepared in the event of natural hazards.

SECTION II – DROUGHT

A. Mitigation Goals – Drought is not spatially defined and as indicated in *Chapter 2, Section II*, drought conditions can cause costly damage to crops in Burke County. The planning committee determined that mitigation goals were necessary to prevent crop damage, as well as damage to new and existing structures.

B. Range of Mitigation Options – The planning committee has identified several non-structural mitigation measures to minimize the potential of crop damage and the potentially destructive effects of drought-inflicted wildfires. The planning committee’s focus is on the

preservation of life and property, with particular emphasis on vulnerable populations and critical facilities. This may result in modifications to current policies and the implementation of local ordinances to ensure suggested mitigation measures are initiated. Objectives #1 and #2 address existing and future assets. Specific mitigation goals, objectives and action items for drought and drought-caused wildfires are as follows:

C. Drought Mitigation Strategy, Actions and Projects

Goal #1

Minimize agricultural, property losses and health impacts in Burke County resulting from drought conditions.

Objective #1

Minimize damage to local crops and livestock.

Action Step #1	<i>Identify and inventory all vulnerable agricultural properties to include livestock.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Commission, EMA
Time Line	2 years
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	HIGH

Action Step #2	<i>Conduct a study on the range of federal support programs available to assist Burke County's agriculture.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	EMA, CSRA RDC
Time Line	1 year - continual
Cost Estimate	Staff Time
Possible Funding Sources	General Fund
Priority	HIGH

Goal #2

Protect life, health and property of residents during periods of drought.

Objective #1

Ensure that there is an adequate water supply during times of drought.

Action Step #1	<i>Promote increased surface water usage and surface artesian flow for irrigation.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Public Works
Time Line	2 year
Cost Estimate	Unknown



Possible Funding Sources	General Funds, USDA, EPA, DNR
Priority	MEDIUM

Action Step #2	<i>Conduct a study of proactive measures for Burke County's agriculture to include livestock watering ponds and capturing storm water runoff.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Commission, EMA
Time Line	2 year
Cost Estimate	\$10,000.00
Possible Funding Sources	General Funds, USDA, EPA, DNR
Priority	HIGH

Action Step #3	<i>Seek funding for private wells that have gone dry.</i>
Responsible Organization	Burke County Commission
Coordinating Organization	Commission, EMA, Health Department
Time Line	2 year – continual
Cost Estimate	Unknown
Possible Funding Sources	USDA, DNR, USDA
Priority	HIGH

Objective #2

Educate citizens on water conservation issues.

Action Step #1	<i>Enact a program to educate residents about water conservation.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Commission, Public Works
Time Line	1 year and continual
Cost Estimate	\$2,000.00
Possible Funding Sources	USDA, EPA, DNR, General Funds
Priority	HIGH

Action Step #2	<i>Increase public awareness of watering restrictions and bans.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Commission, City Councils, Public Works, EMA
Time Line	Continual
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	HIGH

D. Multi-Jurisdictional Considerations – Drought conditions affect all of Burke County. Critical facilities and vulnerable populations are located in the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro as well as in unincorporated areas of the County. As a result, any mitigation steps taken related to drought and



drought-inflicted wildfires should be undertaken on a countywide basis and include the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro.

E. Education and Awareness - The planning committee has identified several methods of public education and awareness regarding hazard mitigation. All public information efforts are aimed at keeping the citizens of Burke County fully engaged in the implementation and periodic maintenance of this mitigation plan. Many of these education and awareness tools are multi-hazard in nature and include educating residents, as well as businesses and industry on how to be prepared in the event of natural hazard.

SECTION III – WILDFIRE

A. Mitigation Goals – As indicated in Chapter 2, Section III, wildfires have the potential to cause costly damage in Burke County. From a danger or hazard perspective, the greatest threat posed by wildfire is the damage to forest, woodlands and agriculture property. The possibility for wildfires is distinct and poses a significant threat to the County. Forest fires are generally the result of dry conditions combined with lightning or carelessness. The planning committee determined that mitigation goals were necessary to prevent damage to undeveloped areas of the County as well as damage to new and existing structures caused by wildfires.

B. Range of Mitigation Options – The planning committee has identified several mitigation measures to minimize the potentially destructive effects of wildfires. The planning committee’s focus is on the preservation of life and property, with particular emphasis on vulnerable populations and critical facilities and the ability for emergency personnel to communicate with the public and each other. This may result in modifications to current policies and the implementation of local ordinances to ensure suggested mitigation measures are initiated. Goal 1, Objective 1 and 2 and Goal 2 objective 1 and 2 address existing and future development. Specific mitigation goals, objectives and action items for wildfires are as follows:

C. Wildfire Mitigation Strategy, Actions and Projects

Goal #1

Prevent damage and protect the life, property and health of residents caused by wildfire events.

Objective #1

Ensure that adequate fire protection is available.

Action Step #1	<i>Review previous firefighter training and implements a schedule for the ongoing training of all firefighters to include wildland fire training.</i>
Responsible Organization	Burke County and City of Waynesboro
Coordinating Organization	EMA, Burke County and Waynesboro Fire Depts.
Time Line	1 year – continual
Cost Estimate	Unknown
Possible Funding Sources	General Funds, FEMA



Priority	HIGH
Action Step #2	<i>Seek funding for needed firefighting equipment.</i>
Responsible Organization	Burke County and City of Waynesboro
Coordinating Organization	EMA, Burke County and Waynesboro Fire Depts.
Time Line	1 year – continual
Cost Estimate	Unknown
Possible Funding Sources	General Funds, FEMA

Action Step #3	<i>Inventory and install more fire hydrants as needed.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, All jurisdictions Fire Departments
Time Line	1 year – continual
Cost Estimate	Unknown
Possible Funding Sources	General Funds, FEMA
Priority	HIGH

Action Step #4	<i>Upgraded water lines to meet FEMA recommendations for firefighting and install fire hydrants.</i>
Responsible Organization	City of Vidette
Coordinating Organization	EMA, City of Vidette
Time Line	2 year – continual
Cost Estimate	\$750,000
Possible Funding Sources	General Funds, FEMA, USDA, CDBG
Priority	HIGH

Action Step #5	<i>Seek funding for more fire tankers (2000 to 3000 gallons) for local fire departments.</i>
Responsible Organization	Burke County and City of Waynesboro
Coordinating Organization	County Commission, City of Waynesboro and EMA
Time Line	2year
Cost Estimate	\$200,000.00
Possible Funding Sources	General Funds, FEMA
Priority	HIGH

Action Step #6	<i>Ensure that a defensible space (30-ft minimum setbacks) between buildings and flammable brush and forestland.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, All jurisdictions, Public Works, Road Department
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	MEDIUM

Objective #2

Reduce threat of wildfire occurrence during periods of drought.

Action Step #1	<i>Strictly follows Georgia Forestry Commission's (GFC) guidelines for control burns and permits.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, All jurisdictions, Fire Departments
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	HIGH

Action Step #2	<i>Continue following GFC service of construction and maintenance of firebreaks around forests and structures, along abandoned roadbeds.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, Road Department, Fire Dept.
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	HIGH

Objective #3

Ensure communication capabilities exist between all Emergency Service Personnel and Agencies.

Action Step # 1	<i>Seek funding for communication towers and voter repeater systems</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, Law Enforcement and Fire Departments
Time Line	2 years
Cost Estimate	\$200,000
Possible Funding Sources	General Fund, FEMA, CJCC, JAG
Priority	HIGH

Objective #4

Provide a central location for all Emergency operations that can be used by all jurisdictions during a hazard event.

Action Step #2	<i>Seek funding a Multi-Jurisdictional Emergency Operation Center</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, County Commission, City Councils
Time Line	2 years
Cost Estimate	unknown
Possible Funding Sources	General Fund, FEMA, CJCC, JAG, USDA, DOJ, SPLOST
Priority	HIGH

Objective #5

Warn all Burke County residents of potential hazard events.

Action Step #1	<i>Seek funding for a reverse 911 or Voice-Over-Internet Protocol system.</i>
Responsible Organization	Burke County
Coordinating Organization	EMA
Time Line	2 years
Cost Estimate	100,000.00
Possible Funding Sources	General Fund, FEMA
Priority	HIGH

Goal #2

Educate the public on wildfire safety and prevention.

Objective #1

Increase public awareness of wildfire dangers.

Action Step #1	<i>Participate in the Firewise Community Initiative.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils, EMA
Time Line	1 year and continual
Cost Estimate	unknown
Possible Funding Sources	General Funds, GFC
Priority	HIGH

Action Step#2	<i>Improve public awareness of wildfire techniques and awareness of wildfire dangers</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils, EMA, Board of Education
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Funds
Priority	HIGH

D. Multi-Jurisdictional Considerations – Wildfire conditions while a greater threat in the rural areas of the County can also have affect on the incorporated areas of the County as well. Critical facilities and vulnerable populations are located in the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro as well as in unincorporated areas of the County. As a result, any mitigation steps taken related to wildfires events should be undertaken on a countywide basis and include the all jurisdictions.

E. Education and Awareness - The planning committee has identified several methods of public education and awareness regarding hazard mitigation. All public information efforts are aimed at keeping the citizens of Burke County fully engaged in the implementation and periodic maintenance of this mitigation plan. Many of these education and awareness tools are multi-hazard in nature and include educating residents, as well as businesses and industry on how to be prepared in the event of a natural hazard.

SECTION IV -- SEVERE WEATHER, INCLUDING TORNADOS, TROPICAL STORMS AND THUNDERSTORM WINDS

A. Mitigation Goals – As with many Georgia communities, if a tornado or tropical storm were to strike Burke County, significant damage to both property and agricultural crops could result. In addition, the potential for injuries and loss of life is substantial due to the unpredictability and violent nature of these storms. The Planning committee recognizes the important role advance planning plays in the mitigation process. There is great benefit in identifying appropriate steps that can be taken to help minimize losses to new and existing structures in the event of severe weather and/or tornados touching down in Burke County. As indicated in Chapter 2, Section IV, of all of the natural hazards profiled in this plan, tornados have the potential to inflict the greatest amount of damage to Burke County while thunderstorm winds are the most frequently occurring natural hazard in the county and have the greatest chance of affecting the county each year. The planning committee has identified several courses of action that both local officials and Burke County citizens can use in their mitigation efforts against the effects of thunderstorm winds and tornados to both new and existing structures.

B. Range of Mitigation Options – The planning committee has identified both structural and non-structural mitigation measures to ensure that the community addresses all relevant considerations. This may result in alterations to current policies and building codes if necessary. Goal 1, Objective 2, 3 and 5 to include actions steps address existing and future structures and development. The mitigation actions presented emphasize both new construction as well as modifications to older structures.

C. Severe Weather, including Tornados, Thunderstorms and Tropical Storms Mitigation Strategy, Actions and Projects

Goal #1

Protect life, health and property of residents from severe weather events.

Objective #1

Warn all Burke County residents of potential severe weather events (tornadoes, tropical storms, and thunderstorm winds).

Action Step#	<i>Seek funding for a reverse 911 or Voice-Over-Internet Protocol system.</i>
Responsible Organization	Burke County



Coordinating Organization	EMA
Time Line	2 years
Cost Estimate	100,000.00
Possible Funding Sources	General Fund, FEMA
Priority	HIGH

Objective #2

Minimize damage to property from severe weather events to include tornados, thunderstorm winds and tropical storm.

Action Step #1	<i>Review building codes for proper wind strength and safety regulations and for consistency with state and federal regulations.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Public Works, EMA
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Fund
Priority	HIGH

Objective #3

Minimize damage to public buildings and critical facilities to ensure continual operations of vital services.

Action Step #1	<i>Inspect public buildings and critical facilities and retrofit to reinforce windows, doors, and roofs as needed</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Building Inspector, Public Works, EMA
Time Line	2 years
Cost Estimate	Unknown
Possible Funding Sources	General Fund, FEMA
Priority	HIGH

Action Step #2	<i>Seek funding for law enforcement center to wind retrofit windows, doors, and roofs.</i>
Responsible Organization	Sardis
Coordinating Organization	Building Inspector, Public Works, EMA
Time Line	2 years
Cost Estimate	Unknown
Possible Funding Sources	General Fund, FEMA
Priority	HIGH

Objective #4

Ensure communication capabilities exist between all Emergency Service Personnel and Agencies.

Action Step #1	<i>Seek funding for communication towers and voter repeater systems.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA
Time Line	2 years
Cost Estimate	\$200,000
Possible Funding Sources	General Fund, FEMA, CJCC, JAG
Priority	HIGH

Objective #5

Provide a central location for all Emergency operations that can be used by all jurisdictions during a hazard event.

Action Step #2	<i>Seek funding a Multi-Jurisdictional Emergency Operation Center</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, County Commission, City Councils
Time Line	2 years
Cost Estimate	unknown
Possible Funding Sources	General Fund, FEMA, CJCC, JAG,USDA, DOJ, SPLOST
Priority	HIGH

Objective #6

Protect vulnerable populations from the effects of severe weather events (tornadoes, tropical storms, and thunderstorm winds).

Action Step #1	<i>Provide weather radios to elderly and handicap populations.</i>
Responsible Organization	Burke County
Coordinating Organization	Commission, EMA
Time Line	1 year and continual
Cost Estimate	\$25,000.00
Possible Funding Sources	General Funds, FEMA
Priority	HIGH

Goal #2

Ensure that the County including the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro and its citizens are prepared in the event of a severe weather event.

Objective #1

Guarantee that all Emergency Response Plans are up to date and adequate to meet the needs of the County and Cities’ residents.

Action Step #1	<i>Review and current Emergency Response Plan and update when needed.</i>
Responsible Organization	Burke County
Coordinating Organization	EMA, to include fire, police, EMS, 911



Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Fund
Priority	HIGH

Objective #2

Guarantee all evacuation plans are up to date and adequate to meet the needs of the County and Cities' residents.

Action Step #1	<i>Review current evacuation plans paying particular attention to vulnerable populations and update as needed.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County, Commission, City Councils, EMA
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Fund
Priority	HIGH

Objective #3

Protect critical facilities from the effects due to power outages as a result of hazard events, to ensure a continuation of all vital services.

Action Step #1	<i>Inventory all critical facilities and assess generator needs and install generators where needed.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, Public Works
Time Line	2 years
Cost Estimate	Unknown
Possible Funding Sources	General Funds, FEMA
Priority	HIGH

Objective #4

Ensure all emergency shelters are ready to meet the needs of the population of Burke County and all jurisdictions.

Action Step #1	<i>Seek funding to ensure all emergency shelters have back-up generators.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, County Commission and City Councils
Time Line	1 year
Cost Estimate	Unknown
Possible Funding Sources	General Fund, FEMA
Priority	HIGH

Action Step #2	<i>Burke County: Request that all new education facilities be designed to serve as public shelters for emergency purposes.</i>
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Responsible Organization	Burke County Commission
Coordinating Organization	Commission, BOE, EMA
Time Line	1 year
Cost Estimate	Unknown
Possible Funding Sources	General Fund, BOE
Priority	HIGH

Objective #5

Educate the public including citizens and business owners on disaster preparedness and safety.

Action Step #1	<i>Promote and participate in the following American Red Cross Programs</i> <ul style="list-style-type: none"> • <i>Disaster Resistant Neighborhoods Program (educating communities)</i> • <i>Business and Industry Preparedness Seminar (educating businesses on business continuity planning)</i> • <i>Community Disaster Education Preparedness presentations (educating adults, children and families)</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils, EMA, BOE
Time Line	2 year and continual
Cost Estimate	unknown
Possible Funding Sources	General Funds
Priority	HIGH

Action Step #2	<i>Educate the public on shelter locations and evacuation routes in the event of a natural disaster.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA
Time Line	1 year and continual
Cost Estimate	Staff
Possible Funding Sources	General Funds
Priority	HIGH

Action Step #3	<i>Develop public education and awareness programs regarding severe weather events (tornadoes, tropical storms, and thunderstorm winds) to include home safety measures, purchase of weather radio and personal safety measures before, during and after an event.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	County Commission, All City Councils, EMA, BOE
Time Line	1 year and continual
Cost Estimate	\$10,000.00
Possible Funding Sources	General Funds, FEMA
Priority	HIGH

- D. Multi-Jurisdictional Concerns** – Thunderstorm winds, tropical storms and tornados have the potential to affect all of Burke County. As a result, suggested mitigation actions related to thunderstorm winds, tropical storms and tornados should be undertaken on a countywide basis and include the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro.
- E. Education and Awareness** – The planning committee has identified several methods of public education and awareness regarding hazard mitigation. All public information efforts are aimed at keeping the citizens of Burke County fully engaged in the implementation and periodic maintenance of this mitigation plan. Many of these education and awareness tools are multi-hazard in nature and include educating residents, as well as businesses and industry on how to be prepared in the event of severe weather.

SECTION V – WINTER STORMS

- A. Mitigation Goals** – Within Burke County, and the southeast region in general, there is great concern over the threat of winter storms. Although this area does not typically receive the amounts of snow and ice that other regions do, nor do they experience winter storms, as frequently as other regions, Burke County and other southeastern communities must be prepared for the damage caused by winter storms. The fact that winter storms hit Burke County infrequently results in other problems, such as lack of equipment and supplies to combat treacherous winter storm conditions. In Burke County, the formation of ice on roads and bridges, tree limbs, and power lines is the cause of most damage. In chapter 2, Section V, additional winter storm hazards are addressed, as well as information related to potential losses for the County. The planning committee has determined that several steps could be undertaken to minimize the effects of winter storms to the health and safety of citizens, as well as damage to new and existing structures in the community.
- B. Range of Mitigation Options** – The planning committee has identified structural and non-structural mitigation measures in addressing winter storm conditions. Although the frequency of these storms is minimal, many of the following structural objectives are similar to those listed in the section for Severe Weather and should be considered to protect the health and safety of residents in Burke County. To ensure that proper mitigation measures are undertaken, current policies may have to be amended or modified. There are no historic or special considerations related to winter storm mitigation measures. Objective 2 and 3 address existing and future assets. Mitigation goals, objectives and action items for winter storms are as follows:

C. Winter Storms Mitigation Strategy, Actions and Projects

Goal #1

Minimize losses to life, health and property of residents from the effect of winter storms.

Objective #1

Protect critical facilities from the effects due to power outages as a result of winter storms to ensure a continuation of all vital services.

Action Step #1	<i>Inventory and assess generator needs at critical facilities and</i>
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	<i>install generators where needed.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA
Time Line	1 years
Cost Estimate	Unknown
Possible Funding Sources	General Funds, FEMA
Priority	HIGH

Objective #2

Ensure communication capabilities exist between all Emergency Service Personnel and Agencies.

Action Step #1	<i>Seek funding for communication towers and voter repeater systems.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, Law Enforcement and Fire Departments
Time Line	2 years
Cost Estimate	\$200,000
Possible Funding Sources	General Fund, FEMA, CJCC, JAG
Priority	HIGH

Objective #3

Provide a central location for all Emergency operations that can be used by all jurisdictions during a hazard event.

Action Step #1	<i>Seek funding a Multi-Jurisdictional Emergency Operation Center</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	EMA, County Commission, City Councils
Time Line	2 years
Cost Estimate	unknown
Possible Funding Sources	General Fund, FEMA, CJCC, JAG,USDA, DOJ, SPLOST
Priority	HIGH

Objective #4

Minimize power outages during winter storms.

Action Step #1	<i>Inspect power lines to determine if trees need to be trimmed or cut down.</i>
Responsible Organization	Burke County and All Jurisdictions
Coordinating Organization	Public Works, Road Department
Time Line	1 year and continual
Cost Estimate	Staff Time
Possible Funding Sources	General Fund
Priority	HIGH



Objective #5

Educate the public on preparedness and safety issues for winter storm events.

Action Step #2	<i>Burke County and All Jurisdictions: Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after the winter storm event.</i>
Responsible Organization	All Jurisdictions
Coordinating Organization	EMA, Commission, All City Councils, BOE
Time Line	1 year and continual
Cost Estimate	\$25,000.00
Possible Funding Sources	General Funds
Priority	HIGH

D. Multi-Jurisdictional Concerns – Winter storms have the potential to affect all of Burke County, therefore, any mitigation steps taken related to winter storms should be undertaken on a countywide basis and include the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro.

E. Education & Awareness – The Planning committee has identified several methods of public education and awareness regarding hazard mitigation. All public information efforts are aimed at keeping the citizens of Burke County fully engaged in the implementation and periodic maintenance of this mitigation plan. Many of these education and awareness tools are multi-hazard in nature and include educating residents, as well as businesses and industry on how to be prepared in the event of natural hazards.

SECTION VII- EXISTING AND FUTURE DEVELOPMENT

The following table depicts the goals and objectives as they pertain to existing and future development to include critical facilities.

Goals and Objectives by Hazard Event for Existing and Future Structures									
Flood		Drought		Wildfire		Severe Weather		Winter Storm	
Existing	Future	Existing	Future	Existing	Future	Existing	Future	Existing	Future
Goal 1	Goal 1	Goal 1	Goal 1	Goal 1	Goal 1	Goal 1	Goal 1	Goal 1	Goal 1
Obj. 2	Obj. 1	Obj. 1	Obj. 1	Obj. 1	Obj. 1	Obj. 2	Obj. 2	Obj. 1	Obj. 1
Obj. 3	Obj. 2	Goal 2	Goal 2	Goal 2	Goal 2	Obj. 3	Obj. 3		
Obj. 4	Obj. 3	Obj. 1	Obj. 1	Obj. 1	Obj. 1	Obj.4	Obj.4		
Obj. 5	Obj. 4					Goal 2	Goal 2		
Obj. 7	Obj.5					Obj. 4	Obj. 4		
	Obj. 6								
	Obj. 7								



**CHAPTER 5 – TECHNOLOGICAL HAZARD
MITIGATION GOALS AND OBJECTIVES**

Technological hazards were not required to be included in this Hazard Mitigation Plan by the Disaster Mitigation Act of 2000, but may be included in future updates to this plan.



CHAPTER 6 – EXECUTING THE PLAN

SECTION I – ACTION PLAN IMPLEMENTATION

The Burke County Emergency Management Agency was responsible for overseeing the PDM planning process. Facilitation of the planning process was conducted by the Central Savannah River Area Regional Development Center. The Burke County Board of Commissioners has authorized the submission of this plan to both GEMA and FEMA for their respective approvals. The Burke County Board of Commissioners, as well as the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro have formally adopted this plan.

Upkeep and maintenance of the plan shall be the responsibility of the EMA Director, as determined during the planning process. It shall be the responsibility of the EMA Director to ensure that this plan is utilized as a guide for initiating the identified mitigation measures within the community. The Burke County Board of Commission and the Mayors of the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro will be responsible for assigning appropriate staff members to implement the action steps identified in this plan. The EMA Director, or his designee, shall be authorized to call a committee to review and update this plan periodically (at least annually) throughout the useful life of the plan, not to exceed five years.

During the plan update process, the EMA Director and committee members shall identify projects that have been successfully undertaken in initiating mitigation measures within the community. These projects shall be noted within the planning document to indicate their completion. Additionally, the committee called together by the EMA Director shall discuss and identify any additional mitigation projects that are necessary in the community.

The mitigation goals, objectives and related action items were initially compiled from the input of the Planning committee, as well as from others in the community. The planning committee prioritized the mitigation actions based on what would be perceived as most beneficial to the community, and the action steps have been listed in this plan as the Committee prioritized them. Several criteria were established to assist planning committee members in the prioritization of these suggested mitigation actions. Criteria included perceived cost benefit or cost effectiveness, availability of potential funding sources, overall feasibility, measurable milestones, multiple objectives, and both public and political support for the proposed actions.

Through this prioritization process, several projects emerged as being a greater priority than others. Some of the projects involved expending considerable amounts of funds to initiate the required actions. Other projects allowed the community to pursue completion of the project using potential grant funding. Still others required no significant financial commitment by the community.

The determination of the cost benefit of a project was based upon the anticipated cost in relation to the perceived benefit of the action taken. A proposed action with a high price tag, but minimal benefit to the community, was considered to have a low cost benefit. Conversely, if minimal expenditures were required and the entire community would benefit, this received a favorable cost benefit rating. All proposed mitigation actions were evaluated to determine the favorability of the benefit in relation to the cost associated with completing the project. Determining the

economic feasibility of mitigating hazards can provide decision makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Burke County and the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro are due to revise their Comprehensive Plan and Short-Term Work Program (STWP) by October of 2007. At this time, an evaluation of mitigation actions identified in the PDM Plan should be conducted to determine what should be included in the Comprehensive Plan and STWP. The planning agency responsible for updating the Comprehensive Plan will be provided with a copy of the PDM Plan to aid in incorporating it into Burke County’s major planning document. During then update of the comprehensive plan there are 12-15 planning meetings open to the public and officials, members of the pre-disaster committee will attend as many meetings as necessary to discuss the goals that need to be included in the comprehensive plan. In addition, relevant sections of the PDM Plan should be included in the next revision of the Burke County Local Emergency Operations Plan. Estimation of potential damages and costs in the event of a natural hazard achieves two ends: it enables the identification of critical economic targets for PDM measures, as well as to enhance the ability to prioritize post-disaster response in aiding the community to recover.

SECTION II – EVALUATION, MONITORING AND UPDATING

The Plan is intended to be a ‘living’ document that informs stakeholders about hazard mitigation projects and plans undertaken by the county and their jurisdictions. In accordance with the requirements set forth in the Disaster Mitigation Act of 2000, Burke County is required to review the PDM Plan annually and revise the plan every five years. The revision process will be consistent with the FEMA planning requirements as stipulated in the 44 CFR 201.6.

At the direction of the EMA Director, the Burke County Pre- Disaster Mitigation Committee shall be reconvened for the revision process which will include a schedule, timeline, and a list of the agencies or organizations participating in the plan revision. Burke County and its jurisdictions have designated the following participants of the committee to guide plan maintenance and update activities to ensure that the information in the plan is current. The Update committee will also be responsible for disseminating information to stakeholders within their respective jurisdictions.

Jurisdiction	Hazard Mitigation Update Committee	Review
	Point-of-Contact	Schedule
Burke County	Emergency Management Director	Annually
Girard	City Clerk	Annually
Keysville	Mayor	Annually
Midville	Police Chief	Annually
Sardis	Police Chief	Annually
Vidette	Mayor	Annually
Waynesboro	Police Chief	Annually



The mitigation goals, objectives and action items will be reviewed to determine their relevance given the changing situations in the county, the state, or federal policy. The risk assessment portion of the plan will also be reviewed to determine if this information should be updated.

SECTION III – MULTI-JURISDICTIONAL STRATEGY AND CONSIDERATIONS

As set forth by the Burke County Service Delivery Strategy, the Emergency Management Agency is the overall implementing agency for projects such as PDM. Burke County and the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro have authorized the EMA to act, in a prudent manner, on their behalf. Documentation to this intent is found in the existing Burke County Service Delivery Strategy (see Appendix B).

Participation from Burke County, as well as the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro was solicited by the Burke County Emergency Management Agency. Burke County and the Cities of Girard, Keysville, Midville, Sardis, Vidette, and Waynesboro participated in all phases of the planning process.

SECTION IV – PLAN UPDATE AND MAINTENANCE

Per the requirements set forth in the Disaster Mitigation Act of 2000, Burke County is required to update and revise the plan every five years. At the direction of the EMA Director, the Planning committee will convene in order to accomplish the revisions.

The revision process should include a firm schedule and timeline, and identify any agencies or organizations participating in the plan revision. The committee will review the mitigation goals, objectives and action items to determine their relevance to changing situations in the County, as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. The committee will also review the risk assessment portion of the plan to determine if this information should be updated or modified, given any new available data.

Burke County is dedicated to involving the public directly in review and updates of the PDM Plan. During the plan revision process, the committee will conduct, at a minimum, one public hearing near the completion of the revision process. This public hearing will provide the public a forum for which they can express their concerns, opinions, or ideas about the plan. Additionally, if persons from the community express interest in participation in the planning process, they will be provided the opportunity to suggest mitigation measures for the community.

Documentation will be maintained to indicate all efforts at continued public involvement. This documentation will include newspaper clippings reflecting the advertised public hearing notice, sign-in sheets, meeting minutes, etc. All relevant information will be forwarded to GEMA and FEMA as a product of the proposed plan revision.

The EMA Director will ensure the revised plan is presented to the Burke County Board of Commissioners for formal adoption. In addition, all holders of the County plan will be notified of affected changes.

No later than the conclusion of the five-year period following initial approval of the plan, the EMA Director shall submit a revised PDM Plan to the Georgia Emergency Management Agency and the Federal Emergency Management Agency for their review and coordination.



CHAPTER 7 – CONCLUSION

SECTION I – SUMMARY

As a result of initiating the PDM planning process, Burke county officials have obtained a great deal of information and knowledge regarding the County’s disaster history, the presence of natural hazards, the likelihood of each of these hazards occurring within the County, and the potential impacts and challenges these hazards present to the community.

The general planning process began with the identification of hazards that have occurred within Burke County over the past 56 years. This was followed with data collection of critical facilities within the community. Assessments were then made to determine the vulnerability of the community to various hazards, and to determine hazard-specific losses. After evaluation of potential losses within the community, mitigation goals, objectives, and related action items were then prioritized and used to formulate a PDM action plan.

The planning process included the creation of a planning committee, with this body being formally tasked by the Burke County Board of Commissioners. Two public hearings were conducted, providing Burke County citizens with the opportunity to comment on, and offer suggestions concerning disaster mitigation actions within the community.

The committee found that it is difficult to predict the geographic threat, and therefore the resulting impact of some natural disasters as compared to others. Tornados and related severe weather strike randomly, usually affecting a small, localized area. On the other hand, natural disasters such as winter ice storms and drought can blanket the entire county, affecting all businesses, public facilities, and residents.

Recognizing this challenge, the Planning committee identified both general and specific measures to aid in the mitigation of several natural hazards most likely to impact Burke County. These measures include, but are not limited to, the protection of critical facilities and infrastructure, progressive governmental policies, and the proactive use of codes and regulations. It is worth noting that local government policies can often be the single most important and cost efficient component of PDM.

The mission of the Burke County Pre-Disaster Mitigation Planning Committee is to *“make the citizens, businesses, communities and local governments of Burke County less vulnerable to the effects of natural hazards through the effective administration of hazard mitigation grant programs, hazard risk assessments, wise floodplain management and a coordinated approach to mitigation policy through state, regional and local planning activities.”* The committee feels that this plan, when implemented, will help to make all of Burke County a safer place to live and work for all of its citizens.

SECTION II – REFERENCES

Numerous sources were utilized to ensure the most complete planning document could be assembled. In an effort to ensure that all data sources consulted are cited, references are listed in the following format: 1) Publications, 2) Web Sites, 3) Other Sources.

Publications

FEMA Pre-Disaster Mitigation *How-to Guides #1, 2, 3, 7* (FEMA)

GEMA Supplements to FEMA Pre-Disaster Mitigation How-to Guides (GEMA)

The True Citizen

The Augusta Chronicle

Web Sites:

FEMA www.fema.gov

GEMA www.gema.state.ga.us

Georgia Department of Community Affairs <http://www.dca.state.ga.us/>

Georgia Forestry Commission <http://weather.gfc.state.ga.us>

National Climatic Data Center www.ncdc.noaa.gov

<http://www.placenames.com>

United States Census Bureau <http://www.census.gov/>

USDA, NASS, 2002 CENSUS OF AGRICULTURE <http://www.ams.usda.gov/>

Other Sources:

American Red Cross

City of Girard

City of Sardis

City of Midville

City of Keysville

City of Waynesboro

City of Vidette

CSRA Regional Development Center

Georgia Department of Natural Resources

Georgia Forestry Commission

Burke County, Georgia

Burke County Board of Education

Burke County Hospital

Burke County Tax Assessor



APPENDICES

Appendix A – Hazard Identification, Risk Assessment and Vulnerability (HRV)

- I. Hazard A - Flood
 - a. Description
 - b. Data – GEMA Critical Facility Inventory Report
 - c. Maps

- II. Hazard B - Drought
 - a. Description
 - b. Data– GEMA Critical Facility Inventory Report
 - c. Maps

- III. Hazard C - Wildfire
 - a. Description
 - b. Data– GEMA Critical Facility Inventory Report
 - c. Maps

- IV. Hazard D – Severe Weather, Including Tornados, Tropical Storms, and Thunder Storms
 - a. Description
 - b. Data– GEMA Critical Facility Inventory Report
 - c. Maps

- V. Hazard E – Winter Storm
 - a. Description
 - b. Data– GEMA Critical Facility Inventory Report
 - c. Maps

Appendix B – Growth and Development Trends / Community Information

- I. Local Comp Plan Executive Summary
- II. Statistics/tables from Local Comp Plan
- III. Community Information

Appendix C –Planning documents

- I. Executive Summary Local Emergency Operations

Appendix D – Worksheets used in planning process

- I. Completed GEMA/local worksheets
- II. Blank GEMA/local worksheets
- III. Other misc. worksheets or planning process documents

Appendix E – Copies of Required Planning Documentation

- I. Public notice
- II. Meeting Agendas / Meeting Minutes
- III. Sign-in sheets
- IV. Local proclamations (this are a copy of the alls resolution)
- V. GEMA/FEMA correspondence
- VI. Local newspaper or radio coverage

