

# **Houston County, Georgia**

## **Pre-Disaster Mitigation Plan**

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## **Stakeholders**

The Houston County Board of Commissioners, in conjunction with the Houston County Emergency Management Agency (HEMA), amended and updated the Houston County Pre-Disaster Mitigation Plan, through the planning processes described herein. This Pre-Disaster Mitigation planning process was completed in cooperation with Houston County's three municipalities: Centerville, Perry, and Warner Robins. Additionally, representatives from various community agencies as well as Middle Georgia's largest employer, Robins Air Force Base (RAFB), and members of the local healthcare community participated in the update of this important document. The Middle Georgia Regional Commission facilitated the planning process and documented all significant accomplishments and milestones.

## **Mission Statement**

To make Houston County and the cities of Centerville, Perry and Warner Robins less vulnerable to the effects of natural and human-caused hazards through effective planning, hazard risk assessments and a coordinated mitigation strategy.”

## **Vision Statement**

Develop a countywide hazard mitigation mindset through local government leadership and community-based partnerships, leading the way to a safe and livable environment for all Houston County citizens.

## **CHAPTER 1: INTRODUCTION**

**I.** Beginning in 2000, and in accordance with the requirements of the Disaster Mitigation Act of that year, each county in the United States were required to develop a Pre-Disaster Mitigation Plan. These plans were intended to address each individual community vulnerability to hazards prior to a disaster event occurring. Based upon this requirement, Houston County initiated the development of a plan that would insure compliance with this legislative requirement and help ensure the community's preparedness in the event of a hazard. The Middle Georgia Regional Commission was utilized as the planning process facilitator by the county. By 2004, the county had finalized and adopted the first Houston County Pre-Disaster Mitigation Plan. The intent and effect of this plan was to help identify areas of vulnerability in the community, reduce the risks that natural and technological hazards presented in the county, and to build a work program that would guide decisions and resource provision. Five years after the adoption of this plan, Houston County engaged in efforts to amend and update the Houston County Pre-Disaster Mitigation Plan, utilizing the Middle Georgia Regional Commission as the facilitator once again.

With the passing of another five-year period, the plan update process was once again reengaged by county leadership in mid-2014. As had been done in past planning efforts, this update utilized a community planning that included a cross-section of community partners. The updated plan includes a detailed and comprehensive analysis and evaluation of critical community facilities, hazard events, losses, and current plans. From this analysis and evaluation, an updated prioritized list of goals, objectives and strategies, designed to further ensure the safety of Houston County residents, was developed. This plan updated the Houston County Pre-Disaster Mitigation Plan Committee and highlighted the need for increased monitoring of the plan to ensure that its action items were being implemented by the responsible community partners.

**II.** For the second update of the Houston County Pre-Disaster Mitigation Plan, Houston County once again identified and selected community members to serve on the planning committee. In the process, the county first identified partners and participants from previous cycles. These partners and their organizations were solicited for participation in the planning committee. Many previous cycle planning participants elected to - rejoin the planning committee and assist in the development. Many new staff members of these organizations also joined the committee. The county engaged other community partners to ensure that all relevant entities were provided an opportunity for input. Initial contact with participants was made through a formal letter. Email and telephone correspondence were utilized for follow-up notification. Ultimately, the county received active participation from many agencies and departments, including multiple representatives from each municipal jurisdiction, Houston County and the cities of Centerville, Perry and Warner Robins. Throughout the planning process committee participation remained fluid and new members were added throughout.

As was the case in previous cycles, initial planning efforts included the utilization of both a full planning committee and an executive committee. Discussions were held on the need

for additional committees, but leadership determined these two committees were sufficient. The full planning committee acted as a steering agent for the Pre-Disaster Mitigation Plan update process, ultimately responsible for confirming past goals and objectives and developing new action items contained herein. The executive subcommittee was comprised of planning team members with expert knowledge regarding all phases of emergency management, hazard identification, and mitigation strategy. These members have a vast working knowledge of the various mitigation resources available to the county and its municipalities. The bulk of the executive committee activities took place in the early stages of the plan development. This subcommittee worked closely with the Houston Emergency Management Agency and Middle Georgia Regional Commission staff to identify specific focuses of the plan and content guidance.

Once again, staff of the Middle Georgia Regional Commission organized and facilitated all planning committee meetings. As issues were discussed and decisions made, Regional Commission staff made the necessary changes to the plan. Specific tasks undertaken in the update of the Houston County Pre-Disaster Mitigation Plan includes, but is not limited to the following:

- **Critical Facilities** – Reviewed critical facilities inventory contained in the 2004 Pre-Disaster Mitigation Plan and the 2010 updated plan to ensure that the data was current and accurate. Where data was found to be out-of-date, inaccurate, or deficient, the committee identified necessary changes. New and emerging facilities were identified based on an analysis that determined whether they were critical in nature. Based upon this analysis new facilities were added. Data was entered into the Georgia Mitigation Information System (GMIS).
- **Identify/Profile Hazards** – Reviewed hazards data contained in the 2004 Pre-Disaster Mitigation Plan and the 2010 updated plan to determine if information is still relevant and applicable. Hazards were determined relevant based upon historical occurrences and the impact of those events. These phenomena were then profiled based upon a review of previous planning documents, statistical information garnered from data resources, local knowledge of hazard events, and other relevant sources.
- **Vulnerability & Loss Analysis** – Conducted a detailed risk assessment for the county. Reviewed and analyzed hazard event profiles and critical facilities to determine potential losses from hazard events. Potential losses include, life, building, infrastructure, and community assets. Reviewed vulnerability and loss data contained in each of the two previous planning efforts and other available data sources.
- **Developed Mitigation Goals & Strategies** – Identified, analyzed and prioritized various mitigation goals, objectives, and action steps. Reviewed previous goals and strategies highlighted in the previous pre-disaster mitigation documents and updated where relevant. Utilized the results of the countywide risk assessment to

develop specific hazard mitigation goals, as well as a comprehensive strategy to address the mitigation priorities within the community.

As mentioned previously, and as was done in previous planning cycles, numerous participants were involved in the update of this document. Representatives of the public and private sectors were afforded seats at the planning table. This planning cycle brought many individual participants that had been involved in the past and many new members. The result was a larger committee than had undertaken previous planning efforts. The list of planning committee participants, their titles, and organizations are as follows:

Jimmy Williams, EMA Director  
Houston County

Mikki Quinones, Lieutenant  
Houston County Sheriff

Larry Thompson, Commissioner  
Houston County

Tommy Jackson, Major  
Houston County Sheriff

Barry Holland, Director of Admin.  
Houston County

Ross Moulton, Deputy Chief  
Warner Robins Fire Department

Ricky Harlowe, Captain  
Houston County E-911

Kenny Hamm, Captain  
Warner Robins Fire Department

Mark Scott, Superintendent  
Houston County Board of Education

Kevin Bartee, Deputy Chief  
Emergency Management Division  
Robins Air Force Base

Michelle Masters, Assistant  
Superintendent of Operations  
Houston County Board of Education

Montie Walters, Utility Director  
City of Warner Robins

Scott Hill, Facilities Director  
Houston County Board of Education

Jason Jones, Fire Chief  
City of Centerville

David Carr, Engineer  
Flint Energies

Don Druitt, EMA Director  
Macon-Bibb County

Porter Wood, Sergeant  
Houston County Board of Education

Heather Holloway, Registered Nurse  
Houston County Health Department

Sonya Jenkins, Chair  
Robins Regional Chamber of Commerce

Sharon Pettit, Specialist  
Houston County Health Department

David Haynes, Fire Chief  
Department of Corrections

William G. Cooley, Assistant Chief  
Centerville Police Department

Allen Ross, Deputy Warden  
Department of Corrections

Ben Knight, Assistant Superintendent  
Centerville Public Works

Kevin Noles, Assistant Chief  
Houston County Fire Department

Beryl Budd, Wildlife Pres. Specialist  
Georgia Forestry Commission

Nick Tresco, Chief Ranger  
Georgia Forestry Commission

Brian Jones, County Engineer  
Houston County

Eric Mosley, Mitigation Manager  
Georgia Forestry Commission

David Borghelli  
Director of Emergency Medical Services  
Houston Healthcare/Houston Co. EMS

Steve Lynn, Chief  
Perry Police

William Cooley, Assistant Chief  
Perry Police

George Brannen  
Warner Robins Public Works

Kirk Crumpton, Lieutenant  
Perry Fire Department

Kenneth Ezell, Detective Lieutenant  
Perry Police

John Wagner, Assistant Chief  
Warner Robins Police

Phillip Pritchett, Lieutenant  
Centerville Police Department

Lois Kemper  
Houston County DFCS

Jason Collins  
Centerville Public Works

Clay Chambers, Lieutenant  
Houston County Sheriff's Office

Bradley Stone, Lieutenant  
Houston County Sheriff's Office

LaMonte Mears, NREMT  
Houston Healthcare

Ronald Nasca,  
Perry Police Department

Jack Johnson, Lieutenant  
Perry Police Department

Jeff Anderson,  
Warner Robins Fire Department

Keri Hall  
Houston County EMA

Jenna Holland  
Houston County EMA

Through the planning process, with the individuals identified above participating, complete records were maintained for all meetings, to include the full committee and the executive subcommittee. This documentation includes agendas, sign-in sheets and labor documentation forms verifying the community's 25 percent in-kind local match. All records and data is maintained and retained by the Middle Georgia Regional Commission for a period no less than three years from the date of GEMA/FEMA approval, should either entity seek to audit for verification purposes.

The plan update was prepared by assembling the ideas, thoughts, and research of the Houston County Pre-Disaster Mitigation Planning Committee. The assembly of the plan document was completed by the Middle Georgia Regional Commission staff. The ideas, thoughts, and actions of the committee were put together into one comprehensive document. A draft was presented to the full committee for its review and comment.

Two public hearings were conducted during the planning process in an effort to solicit public input and participation into the local plan update (*see Public Hearing Notices and Agendas in Appendix E*). The first public hearing was held early in the plan drafting process. This meeting, held on Friday, July 31, 2015, gave the public an opportunity to comment on the plan update during the drafting stage. The public hearing was held conveniently at the Houston County Board of Commissioners Annex. While citizen participation and input was solicited, no members of the community attended the hearing.

A second public hearing was held on August 1, 2015, at this time a draft of the plan update was made available for public review and comment. This public hearing was similarly held in the Houston County Board of Commissioners Annex and no members of the community attended.

**III.** The specific steps and processes taken to update this plan are explained and summarized in each chapter and section of this document. Generally speaking, an update to the Hazard Risk and Vulnerability (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 that could potentially result from future hazard events. Additionally, an updated Capabilities Assessment was conducted by the Houston County EMA Director, collaboratively with the planning committee, to determine areas of vulnerability, ability, and action. More specifically, the Houston County Pre-Disaster Mitigation Planning Committee accomplished the HRV assessment/update by conducting the following steps:

*Inventory of Critical Facilities* – Critical facilities are important to the community in that they provide essential products or services to the public that are necessary to preserve the welfare and quality of life in the county. Additionally, these facilities fulfill important public safety, emergency response, and/or disaster recovery functions. As had been done in past cycles, Houston County critical facilities were reviewed, updated, mapped, and illustrated as found in Appendix A.

*Hazard Identification* – Maps and historical data sources were reviewed and analyzed in order to identify the geographic extent, intensity, and probability of occurrence for various hazard events. Much like in the previous update cycle, this planning committee verified that the six natural hazards and one technological hazard that typically affect Houston County and the cities of Centerville, Perry and Warner Robins, as originally identified in the initial Pre-Disaster Mitigation Plan, were still valid. No new or additional hazards were considered likely to occur (see GEMA Worksheet #1 – Appendix D).

*Profiling Hazard Events* – The causes and characteristics of each hazard were analyzed to determine how each has affected Houston County in the past, with particular emphasis on hazard events occurring since adoption of the original plan. Analysis included examining what part of Houston County’s population and infrastructure (to include an examination of each individual jurisdiction) has been most vulnerable to each specific hazard. A profile of each natural hazard is provided in Chapter 2, with technological hazards portrayed in Chapter 3.

*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. Updated and revised data and information utilized in conducting the assessment. Additionally included was an analysis of development trends and an assessment of each participating jurisdiction’s risks where they may vary from the risks facing the entire county.

*Estimating losses* – Utilizing the best available data (as updated), this step involved estimating damage and financial losses likely to be sustained within a given geographic area by the use of a mathematical model. The planning committee again elected to utilize the same method of estimating losses used during the original planning process. Structure loss combined with content loss and function loss is examined at intervals of 25 percent, 50 percent, 75 percent, and 100 percent. Describing vulnerability in terms of monetary losses provides the county with a common framework in which to measure the effects of hazards on critical facilities.

As was the case during the previous planning cycle, the planning committee discussed future buildings and infrastructure considered critical whose vulnerability should be assessed. The only known planned facility of significance is the construction of a new sewage treatment plant in Warner Robins.

The planning committee did agree that all relevant mitigation practices and principles presented in this plan should be applied to any other significant development, infrastructure expansion or critical facility that occurs over the five-year planning period. Any significant additions of community facilities/infrastructure will necessitate an immediate update of the plan.

During this update cycle, the planning committee reviewed the following plans to ensure conformance and compatibility with this update:

Plan	Description	Review
Houston County/Cities of Centerville, Perry and Warner Robins Joint Comprehensive Plan	Provides the foundation for local government decision making.	Reviewed during the update process to provide community background and to ensure consistency.
Middle Georgia Regional Plan	Considers issues, opportunities and resources that the local governments in the Middle Georgia region share and plans ways to coordinate these elements.	Reviewed during the update process to provide community background and to ensure consistency.
Houston County Emergency Operations Plan	Allocates responsibility for planning for and responding to emergencies within Houston County.	Used to reference emergency protocol within the county.
Houston County/Cities of Centerville, Perry, and Warner Robins Joint Solid Waste Management Plan (SWMP)	Outlines how the community will manage and dispose of solid waste in each jurisdiction.	Reviewed during the update process to ensure consistency.
Georgia Hazard Mitigation Plan	Official update of the State of Georgia Hazard Mitigation plan submitted to the Federal Emergency Management Agency.	Provided a framework for strategies and actions undertaken by local governments in the State of Georgia.
Flood Insurance Study: Houston County and Incorporated Cities	Describes flood hazard data for floodplain management and flood insurance purposes	Provided data concerning flood depth among the counties bodies of water.
Middle Georgia State University PDMP	Serves as the official pre-disaster mitigation plan for MGSU.	Provided guidance concerning the university's mitigation issues and proposed action items.

Houston County does not have currently have a Flood Mitigation Assistance Plan, and the Community Wildfire Protection Plan is currently being developed by the Georgia Forestry Commission. As the status of these plans change, the county will work to incorporate them into this document.

FEMA recommendations from the updated plan resulted in a greater consideration related to the regular maintenance and revisiting of the plan. Further discussion is found in Chapter 2.

**IV.** As identified in the Table of Contents, the Houston County Pre-Disaster Mitigation Plan is organized as follows:

**Chapter one** provides an introduction to the previous planning process as well as actions taken during the update of the plan. It includes the purpose and intent of the plan, the methodology used in developing and updating the plan, a list of those involved in the

planning process and a descriptive narrative of how each section of the plan was reviewed, analyzed and revised.

**Chapter two** profiles the various natural hazards that can occur within the community.

**Chapter three** addresses technological hazards.

**Chapter four** identifies specific community-based mitigation goals, objectives and strategies for each of the identified natural hazards.

**Chapter five** identifies goals, objectives and strategies to mitigate any technological hazards that may occur within the community.

**Chapter six** provides for the assignment of various mitigation activities to certain individuals/organizations to ensure that the plan is implemented and carried out. Included is an evaluation and monitoring component, as well as a process for future plan updates.

**Chapter seven** concludes with a summary of the plan and identification of all references.

Additionally, the plan contains a series of appendices that incorporate various planning tools and supporting documentation. It should be noted that Appendix E fully documents the plan update process. This appendix is presented in chronological order showing the sequence of events and actions that occurred. The planning committee felt this would be helpful to community officials during future plan updates.

V. Current research confirms that within Houston County, the most prevalent, significant, natural hazard events continue to be *thunderstorm winds* that routinely strike, especially during the spring and summer seasons. Additionally, *hazardous material spills* are the most prevalent, technological hazard, and continues to occur at a high rate within Houston County. This was determined by reviewing 62 years of data, the time period for which data is available. Houston County has also identified and verified five additional natural hazard events which could significantly impact the community in a negative manner. These five events are: tornados, flooding, drought, lightning, and winter storms.

Dam failure, extreme heat, extreme cold, hail, hurricanes and wildfires were considered and discussed, but Hazard, Risk and Vulnerability Analysis determined the frequency of occurrence and degree of impact (e.g. injuries, deaths, property damage) in Houston County and its three municipalities to be minimal or non-existent, thus are not included in the plan. Committee members remarked that there is currently a Community Wildfire Protection Plan in the draft stages and will comprehensively plan for these occurrences. This plan is scheduled for completion in the 2015-2016 timeframe. Additionally, pandemic conditions were, once again, discussed during the update process. It was noted to the committee that there is currently a county-wide plan specific to pandemic conditions that addresses appropriate mitigation activities. The committee elected not to include pandemic conditions in the Pre-Disaster Mitigation Plan.

Due to the presence of Robins Air Force Base (RAFB) within the county, the planning committee considered a wide-variety of technology-related hazards including aircraft crashes. Hazard, Risk and Vulnerability Analysis determined the frequency of an aircraft crash to be extremely rare. The committee also determined that developing practical and feasible mitigation measures for such a hazard would be difficult and elected not to include aircraft crashes in the Pre-Disaster Mitigation Plan. It is important to note that numerous

Air Force policies and regulations address mitigation procedures as well as response actions for such an event. The Robins Air Force Base Comprehensive Emergency Management Plan (CEMP) is used to respond and recover from Department of Defense (DoD) aircraft accidents on and off base property. This plan is coordinated through the Houston County Emergency Management Agency annually. Also briefly considered was the threat of terroristic action. The committee decided, however, that the frequency of this occurrence makes it difficult to develop corresponding action steps.

**VI.** As set forth by the Houston County Service Delivery Strategy, resulting from Georgia House Bill 489, the Emergency Management Agency is the overall implementing agency for projects such as Pre-Disaster Mitigation. All communities within Houston County (three cities and the unincorporated portion of the county) have authorized HEMA to act on their behalf, in a prudent manner. Documentation to this intent from the current, approved Service Delivery Strategy can be found in Appendix C. All three cities and the unincorporated county were included in the planning process. Participation from each jurisdiction was solicited and received by HEMA. As a result, a truly multi-jurisdictional plan was created for Houston County with ideas and viewpoints of all entities included.

From a multi-jurisdictional perspective, one of the primary concerns when any disaster event occurs in Houston County is the presence of Robins Air Force Base. RAFB rests in the northeast corner of the county and is the largest employer within the middle Georgia region. With a workforce of approximately 20,000 persons, RAFB is the largest industrial complex in the State of Georgia. In addition to the significance and importance of the base, the livelihood of all Houston County residents was considered through a thorough evaluation of all significant entities which included schools, healthcare facilities, government buildings, and public utilities.

Disaster events also have the potential to severely impact certain vulnerable and/or special needs populations within the county. According to the 2013 American Community Survey, senior citizens (65 years of age and over) living in the county constitute only 10.7 percent of the population; however, 41.4 percent of those 65 years of age and over are considered disabled to some degree. Additionally, 8,639 residents aged 18-64 have a mental or physical disability. Pre-disaster mitigation planning for vulnerable and special needs populations should also take into consideration the presence of 71 licensed day care facilities in Houston County, two general hospitals, and seven nursing homes. Also a potentially vulnerable population, 6.2 percent of the county is Hispanic or Latino a trend which is expected to increase. Many of these residents do not speak, read or write English. This can make them a difficult population to reach.

**VII.** The Houston County Board of Commissioners, and the respective city councils, formally adopted the updated plan and authorized its submission to GEMA and FEMA for their respective review and approval. Should any changes or alterations of the plan be required by either of these entities, HEMA is instructed to make such changes to ensure that Houston County has a compliant plan in place. The HEMA director is also charged with bringing together a committee to periodically review and update the plan. At the behest of GEMA, a new focus will be provided to the monitoring and review of the plan.

Efforts occur on an annual basis and thorough discussion will take place on the action items. Particular attention will be paid to new action items for consideration and updated critical facilities. At a minimum, at least one representative from Houston County and the cities of Centerville, Perry, and Warner Robins, Robins Air Force Base, and Middle Georgia State College will be included on the committee. The committee will work with the HEMA director to update the plan based upon need. As is required under the law, a full and comprehensive plan update (facilitated with an expanded planning committee) will be accomplished in five-year increments.

**VIII.** Houston County (pronounced House-ton), Georgia's 51<sup>st</sup> county, was created in 1821. Originally a part of the Creek Indian Nation's land, the county was named for John Houston, a member of the Continental Congress and Governor of Georgia from 1778 to 1784. The City of Warner Robins is the largest of the three municipalities in the county, and is one of the fastest growing cities in the state. This is due in large part to the presence of Robins Air Force Base. Originally known as the town of Wellston, Warner Robins was officially chartered by the State of Georgia in 1943. Its geographical assets attracted the Air Force (then known as the Army Air Corps) to the area during World War II. In 1941, the Army Air Corps established a military depot in the small community. At the urging of Colonel Thomas, the depot's first commander, the growing town changed its name to Warner Robins in honor of Brigadier General Augustine Warner Robins, who is generally recognized as the father of modern air force logistics.

Though the base and depot have undergone many name changes and new missions through the years, the words "Warner Robins" have always remained part of the name. After the war, many people stayed in Warner Robins, forming a solid community foundation with military roots that accounts for its openness, acceptance, and tolerance, earning the City of Warner Robins the designation of Middle Georgia's International City. As a direct result of the Korean conflict, Robins Air Force Base (RAFB) was permanently established and now constitutes Georgia's largest single industrial complex.

The City of Perry, the county seat, is named in honor of Oliver Hazard Perry, the naval officer who famously said "We have met the enemy and they are ours," after a fleet under his command defeated the British at Lake Erie. The City of Centerville was incorporated in 1958 and serves as a popular "bedroom community" for nearby Robins Air Force Base.

Current (2013) American Community Survey (ACS) estimates place the total population of Houston County at 143,205 residents, an increase of 10,044 (7.5 percent) from the 2010 planning cycle. Warner Robins holds just under half (48 percent) of all Houston County residents. Residents of the unincorporated county continue to comprise a large portion of the population. More than 36 percent, 51,842 of the population residents in the unincorporated area. The remaining 15 percent of residents dwell in Perry (10 percent) and Centerville (5.1 percent). While the entire county has seen growth, continued growth since the last planning cycle, the unincorporated county is the only portion to lose population. This continues a trend that was noted in the previous planning cycle of the shift in total population numbers from the unincorporated to incorporated areas of the county. Because of this trend, there is nothing to suggest a change in this shift. Likewise, the entire county

is expected to continue to increase in size and is likely to make Houston County the largest in the middle Georgia region.

Despite the economic downturn that began in 2008, Houston County remained somewhat insulated from its full effects. This is likely due to the presence of Robins Air Force Base (RAFB) as the economic stabilizer to the county. Despite this stabilizing engine, Houston County still saw a decrease in the rapid business development of the early to mid-2000s. The continued population growth of the county did maintain and caused the need for infrastructure and community services. These actions stimulated changes in land use. With the apparent end of the economic recession development and growth are expected to regain significant steam in the next planning cycle. With this growth, the county and municipalities must be prepared to quickly adapt to the growing needs and the impact of these needs on hazard mitigation.

There have been recent efforts to follow the national trend of downtown and urban redevelopment. Despite this trend, much of the development continues to be new development and takes place on the edge of new development in the previously rural and agricultural areas. This will continue to have a transformative effect on the character and nature of the historically rural landscape of the county. Not only will this increase the demand related to the provision of critical services such as water, sewer, fire and police, but will also transform the manner in which the community must respond to hazards. This highlights the need for additional monitoring of hazards and of the community's responsiveness and preparedness.

The county's high percentage of federal government employment can be attributed primarily to the presence of Robins Air Force Base. RAFB remains the single largest industrial complex in the State of Georgia; the largest single employer and economic driver in Houston County. The base accounts for more than 8,000 of the county's acres and includes both protected wetlands and facilities. There are currently 23,682 employees at RAFB, including 7,030 service members, which have a net payroll of \$1.39 billion. Numerous facilities account for more than 10.5 million square feet and have a total replacement value of \$7.98 billion. The total economic impact of RAFB to the State of Georgia is \$2.856 billion.

When including base and other government employment, more than 32 percent of Houston County's employees work in the public sector. The presence of RAFB has led to growth in other sectors and industries that are designed to meet the needs of the community. According to a report produced by the Infogroup, Inc. in 2015, behind government employment, service sector accounts for the highest percentage (28.3 percent) of the local labor force. Just following this sector, retail trade accounts for an additional 20.3 percent of the labor force. Healthcare and food services are the largest employment industries under these sectors with 8.3 percent and 8 percent, respectively. Manufacturing makes up 3.3 percent of the employment in the county with Frito Lay and Perdue Farms as the primary sector staples.

Because of the vulnerability of military installations to Base Realignment and Closure (BRAC), the community has recognized the need to diversify the local economy and decrease its dependency upon DOD spending. Efforts have been undertaken to attract new industry, capitalize on local infrastructure, and help develop local businesses. Despite these efforts, drastic economic transformation is unlikely to take place within this planning cycle. The economy is likely to continue its growth in the major sectors highlighted above.

## **CHAPTER 2: NATURAL HAZARD, RISK & VULNERABILITY SUMMARY**

Unlike previous planning cycles, Houston County did not have any single occurrence that caused a declared disaster in the 2010-2015 timeframe. While considered an immensely positive thing, the Houston County Pre-Disaster Mitigation Planning Committee reviewed data that showed many hazards impacted county. Fortunately, the damage of these hazards was limited by their strength and geography. Due to the unpredictability of weather events, there was concurrence that vigilance must be maintained in addressing these events.

During the plan update process, the Houston County Pre-Disaster Mitigation Planning Committee utilized the natural hazards identified in the two previous plans as a baseline for discussion and analysis. The planning committee then reviewed, discussed and considered other natural hazards that could potentially affect Houston County. They ultimately concurred with the original and 2010 update plans' findings that six natural hazards pose a direct, measurable threat to the community (see GEMA Worksheet #1 – Appendix D). They reaffirmed that of these, the entire county is exposed to five of the six hazards; tornados, drought, thunderstorm winds, lightning and winter storms. Flooding, on the other hand, is isolated to select areas of the county that are within the flood plain and/or hazard area. Each of these potential hazards is addressed individually, with data to support the committee's findings and recommendations. Additionally, each hazard is followed by a summary of changes resulting from the plan update.

After having identified the natural hazards that pose a significant threat to the community, the planning committee proceeded to “profile” each hazard event in order to help answer the question: How Bad Can it Get? This process consisted of examining hazard frequency data, assessing existing maps (i.e. road maps, topographic maps, aerial photography, etc.) and technology (e.g. Geographic Information System (GIS) and digital mapping) that may already exist at the local level, and inventorying assets and facilities exposed to each hazard event. GEMA Worksheet #2 (see Appendix D) and GEMA Worksheets #3a and #3b (see Appendix A) were helpful planning tools utilized by the planning committee during this process. Also, new and/or projected development, to include buildings and infrastructure, was researched, discussed, and given consideration.

### **I. Flooding** (see Appendix A for hazard area map and related data)

Within any given geography, many different variables must be considered when determining if an area is susceptible to flooding. Topography, ground saturation, soil permeability, rainfall intensity and duration, drainage, and vegetative cover, to only name a few, contribute to the determination of whether or not an area will flood. Large amounts of rainfall over a short amount of time can result in flash floods, which routinely do minimal damage. Should the soil become saturated or super-saturated, even a small amount of rainfall can cause flooding issues. As more and more land is being developed, the presence of impermeable surfaces, roads, driveways, and parking lots cause an increase in the likelihood of flooding within an area.

Despite a low volume of occurrences flooding has caused significant damage within Houston County. The Flood of '94 is the most impactful flood to Houston County and

much of Georgia in modern history. Initiated by Tropical Storm Alberto, the region received approximately 14 inches of rain within a few hours. This caused dramatic flooding throughout Houston County that lingered throughout the county for days. The loss of personal property was catastrophic and the impact to the local economic significant. The total dollar value of damages paid by GEMA/FEMA as a result of this flood was \$5,596,064. Beyond this flood, Houston County has avoided frequent events. Fortunately, those that have occurred have been milder by comparison. Although a culvert or dry stream bed may take on excessive water during heavy rainstorms, flooding to the extent that it causes significant damage has historically been rare.

The Houston County Pre-Disaster Mitigation Planning Committee reviewed historical data from the original and 2010 amended plans, as well as more recent data made available through the National Climatic Data Center (NCDC), for effects of flooding on the community. The areas most susceptible to flooding are illustrated in the Flood Hazard Area Map found in Appendix A, with all other areas primarily spared from flooding. Unfortunately, available data is not suitable or sufficient to make a reliable determination regarding frequency of occurrence, or future probability of flooding, for each individual jurisdiction within Houston County.

In Houston County, there have been 13 reported flooding events since 1998. Since the time of the 2010 update, there have been three flooding events in the county reported to the National Climatic Data Center. Two of these events, took place in 2013 and were flash floods. The other occurred in Centerville in 2010. The impact of these floods is considered low as, combined, they caused an estimated \$30,000 in damage. (see *GEMA Worksheet #1 Addendum* in Appendix D). Several floods from previous time periods had more significant impacts (>\$5,000 in property damages). Five flooding events that occurred between 2003 and 2009 resulted in property damages exceeding \$50,000. Floods in August 2004 and March 2005 were heavily destructive causing \$150,000 and \$250,000 in estimated personal property damages. In analyzing the available data, Houston County averages significant flooding event every 4.2 years. According to available records, there have been no injuries or deaths as a result of floods in that time period.

In order to measure the extent of the flooding hazard, available data was considered that described the potential depth of flood water. In FEMA's 2007 Flood Insurance Study of Houston County and Incorporated Municipalities, there are profiles of sections of creeks and tributaries inside Houston County. Utilizing the median sea level (MSL) of each body's river bed and the MSL elevation of the predicted 1 percent annual flood chance, the depth of water during a 100 year flood was predicted. The results of this analysis showed that of the 20 bodies of water considered, two had an average depth of more than 15 ft, the Echeconee Creek and a tributary. Three other bodies had average depths of more than 10 ft. The average flood depth for all the bodies of water is 8.16 ft. The United States Geological Survey (USGS) has gauges on two of the county's creeks, Big Indian and Echeconee, which help determine the depth of water during historic crests. Big Indian Creek was determined to have an average depth of 27.01 ft. during historic crests, while the Echeconee creek was determined to have an average depth of 15.90 ft. These measurements indicate the possibility for some impactful floods within the county.

As accomplished during development of the original plan, during the update process, assets (particularly critical facilities) were examined using risk-based analysis to determine the most vulnerable locations within the county (see GEMA Worksheet #3a and GMIS Critical Facility Inventory Reports in Appendix A). Because not all facilities are located within a flood hazard area, some facilities can be assumed to be safe should flooding occur within the community. Within the flood hazard area, there is one important facility that could be damaged due to flooding. As shown on the inventory report, Veterans High School is located within the floodplain. Total estimated losses should this facility be severely damaged or destroyed is in excess of \$9.2M. There is also a large number of students, faculty, and staff associated with this facility that would be endangered in the event of flooding. Additional losses could be experienced in the form of displacement and functional downtime.

GEMA Worksheet #3a in Appendix A reflects totals for types of assets, their values, and local populations exposed to flooding. A noteworthy limitation, however, is that the information and data reflected on this form encompasses the entire planning area (i.e. Houston County), to include the cities of Centerville, Perry and Warner Robins. Currently, the community lacks the ability to accurately separate the information by individual jurisdiction. According to the Georgia Mitigation System's (GMIS) National Flood Insurance Program (NFIP) Repetitive Loss Properties report, there are four repetitive loss properties within the county each being residential. Three of these properties have been impacted on two occasions while one property has been impacted six times.

As with the previous update of the Houston County Pre-Disaster Mitigation Plan, the planning committee felt it would be beneficial to examine land use and development trends as they relate to mitigation planning for flood hazard events. An emphasis was placed on examining residential and commercial uses because of the high degree of vulnerability to life and property associated with these uses.

Many areas of Houston County, particularly the area between Warner Robins and Perry, have experienced rapid suburban development over the past 20 years. The City of Warner Robins contains several older residential areas which were built in the late 1940s to early 1960s during the early development of Robins Air Force Base. As RAFB has grown, so has the need for housing in a variety of housing types. Through an aggressive annexation and utility expansion policy, the City of Warner Robins has residential development that has expanded to the west and south. New residential development has not been limited to the City of Warner Robins alone. The City of Centerville and the unincorporated area of Houston County north of Highway 96 have seen a boom in new housing in suburban type subdivisions; some potentially creeping into flood prone areas.

As Warner Robins grew, commercial development spread along the city's primary traffic arteries (Watson Boulevard and Highway 247 Connector, Russell Parkway and Houston Lake Boulevard) in a "strip" development pattern. The City of Perry is characterized by classic traditional neighborhoods with suburban development taking place to the north and south of

the city. Perry's downtown serves as its central business district with strip commercial development occurring along the major transportation corridors.

Land use and development trends provide a basis for making decisions on the type of mitigation approaches to consider, and the locations where these approaches can be implemented. Specific goals, objectives and strategies related to flooding vulnerability resulting from land use and development in Houston County, and its three municipalities, is found in Chapter 4.

As the previous versions of the mitigations plans have been implemented, the community has gradually become less susceptible to flood. The primary reason for this has been the development of policies that discourage the development of facilities within high risk flood plains. Additionally, the local utility and public works departments have prioritized the protection of local utilities, particularly the sewage treatment facilities by installing back-up power generators and pumps.

***Summary of Changes:*** Hazard history and frequency data related to flooding was updated from the original plan; probability of future occurrences was adjusted accordingly; maps were created utilizing the Georgia Mitigation Information System (GMIS); a new analysis of land use, development trends and existing ordinances and regulations was accomplished; flooding susceptibility for each jurisdiction was re-examined via GMIS on-line tool.

## **II. Tornado** (see Appendix A for hazard area map and related data)

As noted in previous plans, tornados are the most unpredictable and destructive of all weather phenomena that affect Houston County. A tornado is a violently rotating column of air extending from a thunderstorm cloud to the ground. The most violent tornados are capable of tremendous destruction, in some cases extreme devastation, with wind speeds that can exceed 250 miles per hour. Damage paths can be of varying widths up to and exceeding one mile, with the length of the path up to 50 miles long. While tornado season is considered March-August, they can be known to strike any time deadly atmospheric conditions are present. The planning committee utilized previous plans and relevant NCDC data to consider the threat that tornados pose to Houston County's residents and critical facilities.

Though tornadoes are fairly infrequent in Houston County, they arise with little prior warning and can occur in any geographic location. Because of this, the municipalities are equally as vulnerable as the unincorporated county to this threat. There are no significant differences between the county and the cities of Centerville, Perry and Warner Robins in terms of the risks associated with tornados. Because of the infrequency in which tornados actually touch down, data is not sufficient to make a reliable determination regarding frequency of occurrence, or future probability of occurrence, for each individual jurisdiction within Houston County. Only three tornadoes have been reported inside the county in the past 25 years. Fortunately, only two of these events (1990 and 2014) caused financial property damage (\$25,000 and \$50,000) and none of the events caused loss of life

or physical injury. The planning committee noted that despite the relatively few occurrences, the potential devastation and unpredictability of tornados demand appropriate mitigation action.

Historically, Houston County has utilized the Fujita Scale to measure the strength of tornados. Since 2007, the Enhanced Fujita Scale has been used to rate the intensity of a tornado by examining the damage caused by the tornado after it has passed over man-made structures. The scale ranges from EF0 to EF5 with an EF0 tornado having wind speeds of 65-85 mph and damage typically minor (e.g. damage to chimneys; tree branches broken; shallow-rooted trees pushed over; and damage to signs). The other end of the scale is represented by an EF5 tornado, with wind speeds greater than 200 mph and capable of lifting automobiles into the air and completely destroying buildings. A full breakdown of the Enhanced Fujita Scale can be found in Appendix A.

As denoted in previous plan versions, the most impactful and catastrophic tornado to touch down in Houston County occurred in 1953. In that year, an EF4 tornado touched down in the northern portion of the county, crossed Hwy. 247-C, continued through a residential area, crossed Hwy. 247 and ultimately traveled across RAFB before leaving the county. As a result of this event, 16 persons were killed, 300 were confirmed injured and over \$25 million in damages were realized. The severe damage was due, not only to the magnitude of the event, but also because of its geographic location in a densely populated portion of the City of Warner Robins. A further alarming statistic is that the Houston County population at that time was less than 25,000 people. With a population of nearly six times that today, that same tornado would cause an astronomically larger amount of damage.

Since this event, 17 tornados have been verified in Houston County (see *Hazard Frequency Table* in Appendix D). Speaking to the danger of these phenomena, five of the eighteen (27.7%) recorded tornados have been injurious and two have been deadly. Despite this fact, trend analysis shows that Houston County should be prepared for a tornado touch down every 3.32 years. This equates to a 30 percent chance of a tornado touching down every year in the county. The potential damage caused by a tornado event is extremely high.

Fortunately, 83 percent of the reported tornados have been EF1 or lower. While these were not the most powerful, they still managed to cause almost \$9 million in property damage, nine injuries and one death. The location of the tornado within the county has been a heavily contributing factor in determining their impacts. With recent population growth (increase of 34.03 percent between 2000 and 2014) and rapid development, it stands to reason that potential damage from a tornado has increased in likelihood.

The best case scenario for Houston County is to see crop and timber damage away from the population center. This, however still has a financial impact on the local economy.

It can be assumed that all facilities within Houston County could be damaged by a tornado; as such weather events are indiscriminate as to when or where they strike. Utilizing a straight-lined method for estimating losses, it can be assumed that structures with the

greatest replacement value could potentially sustain the most monetary damage. It is no surprise that RAFB is the most vulnerable to a tornado strike due to its size. RAFB utilizes a robust mass notification system to alert base personnel to impending weather events, to include tornado watches and warnings.

The committee operating on the assumption that a facility would sustain 75 percent damage in the event of a tornado. Some of the vulnerable facilities include many of the area schools, particularly the high schools (i.e. Houston County High, Northside High, Perry High, Warner Robins High, and Veterans High) as well as the Houston County Courthouse, Houston County Sheriff's Department/State Court Building, Houston County Public Works, the Georgia National Fairgrounds & Agricenter, Frito-Lay, and the expanded Houston Medical Center. GEMA Worksheet #3a in Appendix A reflects totals for types of assets, their values, and local populations exposed to tornados. The GMIS generated Critical Facility Inventory Report found in Appendix A reflects this same data for the community's critical facilities. As indicated previously, the ability to separate the information contained in Worksheet #3a by individual jurisdiction is not currently available.

During the update of this plan, the planning committee elected to follow the same methodology as used during development of the original and 2010 amended plans. Utilizing structure replacement, content replacement, functional downtime, and displacement time, the same facilities indicated by straight-lined loss estimates were shown to be the most vulnerable to tornados.

All of Houston County has the same design wind speed as indicated by *FEMA How-to Guide #2: Understanding Your Risks* and the Georgia Mitigation Information System (GMIS). Additionally, the entire county has the potential to be affected by a tornado. As a result, any steps taken to lessen the effect of a tornado should be undertaken at a county-wide level to ensure that the most stringent regulations are in place for protecting vital facilities and infrastructure within the community. Houston County is located in wind zone I, which is for winds from 90-99mph.

Land use and development trends were examined and discussed, but were determined to be not overly relevant to mitigation planning for tornados. This is due to a tornado's propensity to strike anywhere within the county and with varying degrees of severity. Developing around or away from a tornado is not feasible. Houston County currently has building codes that mandate that structures be built to the design wind speed of approximately 99 miles per hour. The minimum standards established by these codes provide reasonable protection to persons and property within structures that comply with the regulations for most natural hazards. Additionally, ordinances currently exist within Houston County to allow local officials to implement curfews to close off certain portions of the county in the event of a tornado.

Overall, Houston County has high exposure to potential damage from tornados. Should a tornado hit certain portions of the county that are highly concentrated with homes or critical facilities, significant damage could occur, depending on the strength and duration of the

event. As has been evidenced by the number of events within the past 60 years (19 events), tornados have struck Houston County on average once every 3.15 years. As the location of tornados is indiscriminant, no one can predict what facilities, if any, will be damaged in such an event. Additionally, the planning committee determined that due to the indiscriminate nature of tornados, mitigation activities should be applicable to the entire planning area. Any mitigation measures that can be taken by local officials to make the community safer in the event of tornado activity are encouraged.

From a standpoint of occurrences, the community remains as likely to face tornados today as when the plan was last updated. The community is, however, safer as through the accomplishment of an action item from the former plan. During this planning cycle, the community developed call-in procedures which help to ensure that emergency personnel are prepared to respond when off duty. This will drastically help response times in the event of any disaster including potentially impactful tornados.

***Summary of Changes:*** Hazard history and frequency data related to tornados was updated from the original plan; probability of future occurrences was adjusted accordingly; changes in land use and development trends were examined for applicability; GMIS on-line tool was utilized for mapping and analysis.

### **III. Drought** (see Appendix A for hazard area map and related data)

In order to analyze the danger presented by drought, the planning committee analyzed previous data from the former plans and new data provided by National Climatic Data Center (NCDC). By definition, drought is a prolonged period of moisture deficiency. Drought conditions affect the cultivation of crops, as well as water availability and water quality. Drought is also a key factor in wildfire development. Drought conditions make natural fuels (grass, brush, trees, dead vegetation, etc.) more fire-prone.

Houston County, as well as the State of Georgia and much of the southeast, has been mired in a drought for much of the past decade. During these climatically challenging times, agricultural crops have experienced damage throughout the county and the southeast. Drought conditions are potentially threatening in many regards to the health and well-being of Houston County's residents.

During droughts, the community is exposed to several potentially harmful situations. Water levels can drop to dangerously low levels as evidenced in 2001-2002 and again in 2006-2007. Additionally, dry grass and underbrush increase the threat of fire to a dangerous level. Fortunately, Houston County has been spared from any wildfire activity destroying numerous acres and real estate. Most significantly, however, agricultural products grown within the county have sustained the most damage during drought. To date, agricultural losses have been the primary losses associated with drought as no critical facilities have sustained any damage or downtime due to dry weather.

Since 1997, twenty-one occurrences of drought have occurred within the county. It is important to note, that the NCDC data recorded multiple events during what was a

sustained period of extended drought. For example, the years, 1999, 2000, 2001, 2002 and 2007, each saw multiple drought events adjacent to one another. This makes the data potentially misleading. Additionally, available data shows a date for the events but does not give a beginning or an end. While this makes the data more difficult to interpret, it does provide a framework and timeframe to understand drought conditions in the county.

Fortunately for the county, recent years have shown declining drought events. In the past five years, there has been only one instance of reported drought. This event occurred in 2011 and no evidence of death, injury or damage was put forth. A drought in June 2000 was the only event to have reported damage. This damage was very significant with \$3.28 million.

While they can have negative health impacts on people, animals and vegetation, drought conditions, extreme heat and dry weather have been determined to rarely impact physical structures. As was the case in the previous planning cycles, there are no records of critical facilities having been damaged by drought conditions. The planning committee believes that this is unlikely to occur.

The United States Drought Monitor records drought conditions for each county in the US each month. It records these levels on a scale that ranges from “Abnormally Dry”, D0, to “Exceptional Drought”, D4. According to the USDM records from January 2000 until January 2014, there were 83 months with some level of drought (D1-D4). This accounted for 48 percent of the months during that time period. With drought having been present in nearly 50 percent of the months the planning committee determined that it was highly likely, 1:2 chance, that drought will occur in a given month. Twelve of these months were considered to have Exceptional Drought, D4. The majority of the months with Exceptional Drought occurred through an unusually dry time period during 2012.

Previous planning committees included drought as a considered hazard because of conditions that may result due to it. Specifically, it creates amenable to wildfires and other conflagration event. Without rainfall, these fires can be much more difficult to control and fight. Because of its lack of direct impact on critical facilities, there was considerable debate as to whether its significance rose to the level of being in the plan. Correspondingly, there was additional debate as to whether wildfire should be mentioned specifically. Ultimately, the planning committee decided to keep drought as a hazard of note and to continue to omit wildfires. This was done partially because of the lack of reported wildfires in available records.

Quantifiable damage from droughts are difficult to determine. Since no damage to critical facilities is anticipated as a result of droughts, the estimated losses to critical facilities is still considered to be \$0. Crop damage cannot be accurately quantified due to the fact that different crops require different amounts of rain and different temperature requirements. Additionally, duration of the drought and the severity of the drought are other variables that preclude accurately identifying a cost associated with crop damage.

With drought having little to no impact on facilities, and no reported instances of significant wildfire activity resulting from drought, agricultural losses are most likely to extend from

drought conditions. While difficult to quantify a monetary impact, historical data indicates that most periods of drought in Houston County have been short in duration, typically lasting a single growing season. With this being said, the extent of drought typically felt in Houston County could be classified as moderately severe.

Unlike floods and tornadoes, for which higher population and development mean higher potential for damage, drought conditions are most impactful to rural lands that have low population density. Additionally, lands with agricultural resources are mostly likely to assume damage and loss. The bulk of agricultural lands in the county are found in the southern portion away from the more urbanized Warner Robins and Centerville. Areas of development abutting agricultural lands are the facilities most likely to be impacted.

After careful consideration, the Houston County Pre-Disaster Mitigation Planning Committee has determined that the financial damage associated with drought should be minimal to any facilities or vital infrastructure within the county (see Appendix A, GEMA Worksheet #3a). Vulnerability exists for agricultural commodities, but quantifying the vulnerability is not possible due to the different variables discussed above. While crop damage resulting from drought is primarily confined to agricultural areas of the county, water shortages impact all Houston County residents. Therefore, the planning committee determined that any potential mitigation measures should target the entire planning area.

In the most recent plan cycle, there has been little to change the community's susceptibility to drought occurrences. As mentioned, drought has little impact to critical facilities. Through the ongoing education and awareness activities, it is hopeful that these will help mitigate fires caused by drought conditions.

***Summary of Changes:*** Hazard history and frequency data related to drought was updated from the original plan; probability of future occurrences was adjusted accordingly; changes in land use and development trends were examined for applicability; GMIS on-line tool was utilized for mapping and analysis.

#### **IV. Thunderstorm Winds** (see Appendix A for hazard area map and related data)

In previous planning cycles and in this one, thunderstorm winds are by far the most frequent. The historical impact of these winds was gauged through NCDC data. Thunderstorm winds are generally short in duration involving straight-line winds and/or gusts in excess of 50 miles per hour. Thunderstorm winds tend to affect areas of the county with significant tree stands, areas with exposed property and infrastructure, and above ground utilities. These winds can cause power outages, transportation and economic disruptions, significant property damage, and pose a high risk for injuries or loss of life. The county and its cities are equally vulnerable/likely to be affected by winds. As is the case with many hazards, high population density and development can increase the risks and vulnerabilities associated with thunderstorm winds. Thunderstorm winds vary in size, occur irrespective of boundaries and oftentimes impact multiple jurisdictions

simultaneously and in succession. This makes it difficult to distinguish impacts geographically.

During spring and summer seasons, the county typically experience countless thunderstorms, some packing significant winds. As a result of these winds, properties are damaged from roofs blowing off, trees being downed, loose debris or from some other source.

As illustrated in the wind hazard maps found in Appendix A, the entire county, including the cities of Centerville, Perry and Warner Robins, has the same Wind Hazard Score. With a Wind Hazard Score of 2, Houston County residents can typically expect 90 to 99 mile per hour winds during thunderstorm events. The Wind Hazard Score is reflective of the 2000 International Building Code.

Houston County has incurred 182 thunderstorm and high wind events since 1962 (see *Hazard Frequency Table* in Appendix D). Data was reviewed that shows the value of the property damage caused as a result of thunderstorm winds from 1993 to the present. Of the 115 events, 13 or 11.3 percent, caused property damage equal to or greater than \$50,000. Of the events, an additional thirteen events produced damage between \$10,000 and \$50,000. On average, over two thunderstorms each year produce winds strong enough to inflict significant damage to facilities within the county. As previously indicated, severe thunderstorm winds occur more frequently than any other natural hazard event within Houston County. When considering the probability of future occurrence, NCDC data indicates that Houston County and its three municipalities have over a staggering 265 percent chance of at least one thunderstorm occurring each year.

In evaluating assets that are susceptible to thunderstorm winds, the committee concurred with the findings documented in the original plan that all critical facilities, as well as all public, private and commercial property, is susceptible to thunderstorm winds (see Appendix A, GEMA Worksheet #3a). Again, using straight-lined loss estimates (structure replacement, content replacement, functional downtime, and displacement time), some of the county's larger employers (RAFB, Frito-Lay, Houston Medical Center, Perry Hospital, several larger schools) were the most likely to sustain costly damage from thunderstorm winds. The GMIS report on critical facilities can be found in Appendix A.

Overall, thunderstorm winds pose one of the greatest threats to the livelihood of citizens in Houston County. As thunderstorms tend to "pop-up" anytime and anywhere, this hazard poses a serious threat to both lives and property and impacts the entire planning area. As with tornados, the planning committee determined that limiting land use and development was not useful in preparation for thunderstorm winds, but because it is the most frequent hazard that affects Houston County, it is recommended that specific attention be given to ensure that structures within Houston County are built to appropriate code standards. Presently, local codes require that all mobile homes within the county be "tied-down" to prevent damage during strong thunderstorm winds. Additional mitigation measures of this type are encouraged.

Since the time of the previous plan development there has been little to change the community's susceptibility to thunderstorm winds and their damage. The community has continued to educate the public and enforce policies that will help the community respond to these occurrences.

**Summary of Changes:** Hazard history and frequency data related to thunderstorm winds was updated from the original plan; probability of future occurrences was adjusted accordingly; changes in land use and development trends were examined for applicability; GMIS on-line tool was utilized for mapping and analysis.

## **V. Lightning** (see Appendix A for hazard area map and related data)

Accompanying thunderstorms, and occasionally occurring by themselves, lightning events appear most frequently in Houston County during the summer months. During this update period, the Houston County Pre-Disaster Mitigation Planning Committee reviewed former planning documents and National Climactic Data Center (NCDC) data. Lightning is a phenomenon whereby an electrical charge emits from clouds, potentially reaching between 100 million and one billion volts. These charges move from cloud to cloud, cloud to ground, and in rare instances from ground to cloud. Though most events occur in the summer, lightning events can happen at any time and any location within the county.

Lightning often strikes buildings and trees, particularly those that are tallest within the storm's location. Because of the damage caused by their heat and voltage, this phenomenon poses a threat to the county's facilities. Lightning can cause varying degrees of damage to a facility should it strike. Most common damage is from lightning running in and destroying electrical equipment (contents of facilities) and starting fires in the structure that is hit. While damage is frequently minor, some cases can result in fires that destroy an entire structure. Additionally, during drought-like conditions, lightning strikes in dry, wooded areas can cause ignition of natural fuels, producing brush and wildfires. Due to the unpredictability of lightning, all parts of the county are equally susceptible to strikes and equally vulnerable to their effects.

Because of the correlation between lightning and thunderstorms, this planning effort reviewed data related to both lightning and thunderstorm winds when reviewing frequency of the impact to the county. As mentioned in the previous section, there have been 182 instances of thunderstorms since 1962 reported to NCDC. Each of these instances would have contained some level of lightning, though many may have not impacted the ground or any facility. Available records of lightning events provided by NCDC shows that there were 11 "notable" events between 2008 and today. These events caused some level of financial damage to personal property or resulted in injuries to residents. Five lightning events caused between \$50,000 and \$300,000. Two events, one which occurred in 2000 and the other in 2008, resulted in injuries to local residents. The most injuries were caused in the 2008 event in Bonaire, an unincorporated community south of Warner Robins. On September 11th of that year, lightning struck the field during the half-time of a middle school football game. Twelve people were injured; nine adults and three children. Three adults faced serious injuries, but thankfully, all victims recovered. During the most recent

planning period, there were three instances of lightning. While there were no personal injuries, one event, which took place in July 2012, caused \$300,000 in property damage (see *Hazard Frequency Table* in Appendix D).

The NCDC data, on its own, would only indicate 1.05 lightning events per year since 1998. This data, however, only considered damage or injury causing events. There are likely many additional instances of lightning that went unreported due to the extreme difficulty in documenting every lightning strike within a community. Because of this, the committee, as previous committees did, acknowledged the high likelihood that there is a greater frequency of events. For this reason, the committee considered instances of thunderstorm winds and general local knowledge when evaluating the relevancy of this hazard. When including thunderstorm data, Houston County can expect at least 6.11 lightning events to occur within a given year. According to the National Lightning Detection Network from Vaisala, the north western portion of Houston County received from between 12 and 20 flashes of lightning per square mile per year between 2005 and 2014. This area would include highly dense parts of the county and portions of all three municipalities, Centerville, Warner Robins, and Perry. The remaining parts of the county saw between 6 and 12 flashes per square mile per year.

GEMA Worksheet 3a and GMIS Critical Facility Inventory Reports found in Appendix A help to illustrate the potential monetary impact to the community. Some of the high-cost critical facilities subject to lightning damage include the community's many schools and educational facilities, valued at over \$410 million. Worksheet 3a reflects more than 66,000 structures countywide vulnerable to lightning strikes; valued at a total cost of more than \$5 billion. As stated previously, this data is not available by individual jurisdiction.

Land use and development trends were examined and discussed, but were considered by the planning committee as not applicable to mitigation planning for lightning. As with tornados, lightning's propensity to strike anywhere within the county negates limiting land use or development as a means of mitigation.

Currently, all newly constructed facilities within Houston County are to be properly grounded to minimize the devastating effect of lightning strikes. Although all lightning strikes cannot be avoided, properly grounded facilities can minimize the effect should lightning strike a location. Houston County does not currently require lightning rods to be installed on critical facilities or private structures; but, new structures should be adequately grounded to prevent significant damage.

Despite the fact that documentation is only available to indicate very few lightning strikes within the county, this hazard causes more damage than one might imagine. Fire departments in Houston County and the cities of Centerville, Perry and Warner Robins can provide evidence that numerous structures in the community have been damaged due to lightning. This evidence is much more indicative of the extent to which lightning threatens and impacts the community than the few recorded instances reported by NCDC. NCDC data indicates 1.2 lightning events per year over the past 10 years. Local officials estimate many more lightning events, including structure strikes, than NCDC reports indicate. This

data indicates that the extent in which lightening impacts Houston County is much more severe (average of 3-5 strikes per year). The Pre-Disaster Mitigation Committee recognizes this is a harmful event in the community and measures should be taken to lessen its effects over the entire planning area.

Since the development of the last plan there has been progress in mitigating the community's vulnerability to lightning. As outlined by a previous action item, Flint Energies places surge protectors on their critical facilities. This will help reduce power outages in the event of lightning. Likewise, local jurisdictions have been active in placing back-up generators at key facilities. There is still work to be completed in this action step, however the progress has helped to protect the community.

**Summary of Changes:** Hazard history and frequency data related to lightning was updated from the original plan; probability of future occurrences was adjusted accordingly; changes in land use and development trends were examined for applicability; GMIS on-line tool was utilized for mapping and analysis.

## **VI. Winter Storms** (see Appendix A for hazard area map and related data)

Utilizing weather history dating to the 1970s, past planning cycles noted that Houston County was likely to face one winter storm every 10 years. This trend has appeared to increase during the most recent planning cycle. The severity of several storms was the basis for this hazards inclusion in past Pre-Disaster Mitigation plans. After reviewing the data in the previous plans, the National Climactic Data Center reports, and committee member's knowledge, the planning committee discussed continuing this as a focus hazard. The past damages of winter storms and the modest increase in the frequency of winter storms during the most recent planning cycle encouraged the planning committee to make this determination.

Winter storms are distinguished from other winter events because they bring not only snow, but the threat of freezing rain and ice storms. A heavy accumulation of ice, especially when accompanied by high winds, devastates trees and power lines. When ice forms on sidewalks, streets, roads, or highways, each becomes extremely hazardous to pedestrians and motorists in Houston County. Like with other hazards, there is no distinction between the individual jurisdictions' vulnerability to them.

In the previous planning cycle, the committee considered multiple winter storm events that occurred in successive decades. In 1973, the county was shut down due to approximately 18 inches of snow that fell in one day. Ten years later, in January 1983, Houston County was struck with another significant snowstorm. In March 1993, another winter storm, consisting of significant amounts of ice hit Houston County producing icy conditions along roads and power lines in the county. The community has also documented a two-inch snowstorm that hit Houston County during the winter of 2002 causing dangerous travel conditions over a 24-hour period.

The State of Georgia has faced a series of crippling winter storms in the past few years. In 2010, much of the northern portion of Georgia was in a state of shutdown due to ice having formed along the roadway. Fortunately, this storm did not have a significant impact on Middle Georgia. The region was not so fortunate in the winter storm in January 2014. In addition to causing area-wide gridlock and loss of power in the Metro-Atlanta area, the storm caused school and business shut-downs across the state, including Houston County and many other counties within Middle Georgia. Though the county avoided some of the major issues that plagued other areas, this still made it apparent that there was still risk in these hazards. As previous plans noted, much of Georgia and Middle Georgia does not have equipment necessary to keep the community functional in the event of a massive winter storm. Because of this, an otherwise manageable incident could cripple a community. NCDC shows three reported winter storms in the past 10 years (see *Hazard Frequency Table* in Appendix D). Because these events are considered to be infrequent, it has been considered impractical for Houston County to procure and maintain the necessary equipment to address these weather events. Additionally past efforts noted the difficulty in mitigation of winter storms through land use and development patterns chiefly because of the infrequency of the events and unpredictability of winter storms geographic impact. While winter storms can threaten physical structures, their primary impact is on people. GEMA Worksheet #3a in Appendix A depicts the total number of structures, the value of those structures and the population exposed to the winter storm hazard (encompasses the entire planning area; not available by individual jurisdiction). While damage to buildings resulting from winter storms is minimal, it is important to note that the number of people (157,119) who either reside, work in, or visit these structures on a daily basis are vulnerable to the effects of winter storms. Similarly, the Critical Facility Inventory Report, obtained from the Georgia Mitigation Information System (see Appendix A), reflect data on the value of the community's critical facilities, content value, as well as occupancy estimates. In excess of 55,000 people from these critical facilities are potentially exposed to the hazards of winter storms.

The extent to which the community is vulnerable to this hazard is evident when examining snow and ice accumulations from previous storms. As stated, this is an infrequent hazard event, however; accumulations have averaged between 2-4 inches. This is exceptionally high for the Middle Georgia region and the problem is exasperated due to the lack of snow and ice removal equipment. As little as one half-inch of accumulation can wreak havoc on the community.

Within the county, damage to facilities is caused primarily by downed trees and power lines crashing into or falling onto facilities. Consequently, gaping holes are created in the structure or fires are ignited as a result of the severe weather. Also, during times of snow and ice, generally associated with very cold temperatures, persons with inadequate heat try to warm their homes in the most cost affordable method available. This frequently includes using unsafe flammable materials that can result in structure fires. Winter storms are typically short in duration, and the damage associated with them is often minimal (particularly to critical facilities); however, the potentially crippling effect this hazard poses, necessitates mitigation measures being undertaken to lessen its impact.

Since the time of the previous plan development there has been little to change the community's susceptibility to winter storms and their damage. The community has continued to update shelter locations and to identify places where roads might be impacted by ice. The relative infrequency and lack of severity of winter storms does not justify highly expensive actions that would drastically decrease the community's impact from winter storms, like the purchase of heavy response equipment.

***Summary of Changes:*** Hazard history and frequency data related to winter storms was updated from the original plan; probability of future occurrences was adjusted accordingly; changes in land use and development trends were examined for applicability; GMIS on-line tool was utilized for mapping and analysis.

## **CHAPTER 3: LOCAL TECHNOLOGICAL HRV SUMMARY**

Within Houston County, one technological hazard is readily apparent within the community. Hazardous material spills occur rather frequently within the county, with the majority of incidents being fixed location spills, and considerably fewer are transportation related. As there are state, federal, and interstate highways running through the county, many trucks travel through the community, and near the downtown areas, on a daily basis. These trucks could possibly contain agents with the potential to cause significant damage to the Houston County community. Surprisingly, with the number of vehicles traveling through the county, there have been minimal transportation related hazardous material spills reported to the Department of Natural Resources Environmental Protection Division (DNR-EPD) from Houston County since 1987. Additionally, the community must be aware of the potential for technological hazards due to the presence of RAFB.

### **I. Hazardous Materials Spills** (see Appendix A for hazard area map and related data)

During this update of the Houston County Pre-Disaster Mitigation Plan, the planning committee reviewed historical data from previous planning cycles, which was largely garnered from the Georgia Department of Natural Resources Environmental Protection Division in its research involving hazardous materials in the community. Data from the most recent planning cycle (2010-2014) was also documented and reviewed. The primary source for this data was the Center for Effective Government's National Response Center (NRC). Hazardous materials are substances that are harmful to the health and safety of people and property. Facilities that produce, process, or store hazardous materials are at risk for spills, as well as facilities that treat or dispose of hazardous waste. Hazardous materials spills generally come from two sources. Transportation related spills occur on or along roads and rail lines within a jurisdiction as hazardous substances are transported from one location to another. Fixed location spills occur anywhere within the county where the materials are stored, maintained, or handled.

Commercial businesses, the Department of Defense, and private citizens are all potentially responsible for the spilling of hazardous materials within Houston County. With the diverse mixture of business and industrial sectors operating in Houston County, the types of hazardous materials that could spill in the community are many and varied. Residents and employees alike must be sure to take precaution when transporting or using hazardous materials to ensure the safety to their property, their neighbor's property, and the well-being of everyone in the vicinity.

Within a 26-year period for which data is available, there were 153 hazardous material spills within the county (see *Hazard Frequency Table* in Appendix D). The 2010 update noted that the vast majority of these spills (84 percent) were fixed as opposed to transportation related. Also noted in the 2010 update, Houston County averages 6.9 spills per year or one spill every .17 years. Interestingly, between 2010 and 2014, Houston County averaged only two spills per year. Of these spills, half were mobile and half were fixed. This appears to be a positive trend of declining spill incidents and is hopefully an indicator of improving safety measures.

Data was obtained from the Toxics Release Inventory (1987 – 2005), the Hazardous Site Response Notification database made available by the Georgia Department of Natural Resources Environmental Protection Division, and the National Response Center (NRC) provided by the Right-to-Know Network. While the data was analyzed to determine noteworthy differences between the county and the cities in terms of the risks and vulnerabilities associated with hazardous material spills, no clear patterns emerged. Existing data is not suitable or sufficient to make a reliable determination regarding frequency of occurrence, or future probability of hazardous materials spills related to each individual jurisdiction within Houston County.

All critical facilities within the county are susceptible to experiencing downtime due to hazardous material spills. Persons occupying certain critical facilities may be forced to evacuate the premises should spills of certain substances occur in close proximity to the structure, thus creating downtime at the facility. Additionally, some of the facilities have potentially harmful substances stored on site. Should these materials be spilled, the potential exists for damage to property, as well as evacuations due to the contaminants. There are no specific regulations that can prevent the spill of hazardous materials within the county boundaries. However, mitigation measures can be taken to help ensure that vital natural resources and critical facilities are adequately protected in the event of a hazardous material spill.

There are no discernable differences in the susceptibility of Houston County facilities when compared to the cities of Centerville, Perry, and Warner Robins in regards to hazardous material spills. Each jurisdiction's facilities, as well as private facilities, must maintain proper procedures and precautions for handling hazardous materials. Additionally, each must maintain measures for action in the event of a spill, either in the facility or nearby.

The potential extent of this hazard on the planning area is difficult to quantify. Each potential spill would be unique in its magnitude and severity. Past data and information does not allow for an accurate profile of this hazard event, however; the important thing to keep in mind is the potential catastrophic nature of this technological hazard and the need for the community to be prepared and vigilant. GEMA Worksheet 3a and the GMIS Critical Facility Inventory Reports located in Appendix A help to illustrate the sheer number of buildings, infrastructure and people exposed to this hazard on a daily basis (encompasses the entire planning area; not available by individual jurisdiction).

Land use and development trends were examined for possible application related to hazardous materials spills and mitigation measures. With burgeoning residential and commercial development occurring in Houston County, best management practices should be followed in relation to minimizing the impact of hazardous materials spills on residences, businesses and environmentally sensitive areas. Examples include: using infrastructure availability to steer certain types of development (those prone to hazardous material spills) away from areas of natural, cultural, historic and environmentally sensitive resources; using appropriate setbacks to minimize risks to citizens and businesses from transportation-related hazardous materials spills; developing general policies and

protection measures for those industries/developments that use, store or transport hazardous materials.

***Summary of Changes:*** Hazard history and frequency data related to hazardous materials spills was updated from the original plan; probability of future occurrences was adjusted accordingly; changes in land use and development trends were examined for applicability; GMIS on-line tool was utilized for mapping and analysis.

## **CHAPTER 4: LOCAL NATURAL HAZARD MITIGATION GOALS & OBJECTIVES / COMMUNITY MITIGATION GOALS, POLICIES & VALUES**

This chapter identifies a series of community goals and objectives pertaining to each of the natural hazards identified in Chapter 2. As part of the update process, the planning committee performed a comprehensive review of the goals and objectives listed in the original plan. The committee also discussed overall community mitigation goals and values to ensure consistency with those identified for each natural hazard. Existing policies, regulations, ordinances and land use were examined for applicability. New and/or projected development related to buildings and infrastructure was researched and given consideration. Overall, the priorities of the community as reflected in the plan did not change drastically from the previous planning cycle. The focus of the plan remains largely unaltered though a few specific action items were added.

The planning committee also revisited the STAPLEE Criteria (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) in evaluating alternative mitigation actions (see GEMA Worksheet #4 in Appendix D). Finally, adjustments were made as necessary to those goals and objectives that were re-evaluated and determined to still be valid; new goals and objectives were added where applicable. Each hazard is followed by a summary of changes resulting from the plan update initiative.

The planning committee also identified and validated several methods of public education and awareness regarding natural hazard mitigation. All public information efforts are aimed at keeping the citizens of Houston 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 the following: implementing a countywide crisis alert or notification system, distribution of informational brochures or pamphlets, public and private sector briefings, workshops and demonstrations, Public Service Announcements, etc.

Additionally, **Section VII** in **Chapter 2** entitled **All Hazards** was deleted from the plan update. In the original plan, this section addressed the issue of multi-purpose planning that is applicable to all hazards and is not specific to any single hazard. The plan update committee determined that the goals, objectives and actions steps identified in this section should be included under each of the specific natural and technological hazards where applicable.

The section that follows (as well as the corresponding section in Chapter 5) serves as the Houston County Mitigation Action Plan. Each natural and technological hazard is described along with relevant goals and objectives. Specific action steps designed to achieve each objective are identified, along with the agency or department responsible for implementation. An estimated cost is provided, as well as various funding mechanisms, the affected jurisdiction(s), a projected timeline towards implementation, the priority of the action as determined by the Pre-Disaster Mitigation Planning Committee, and finally the status of the action or project. Each action item has been assigned to one or more responsible departments or agencies for implementation. These entities are frequently the

community's local governments and their departments, like the utilities, public works, code enforcement and emergency management departments. Other implementing agencies include local nonprofits, state organizations, the local school system, and utility companies. Each one of the entities has dedicated, professional staff which organize the accomplishment of the outlined activities. In some cases, current resources and staff time are sufficient to perform the tasks. In other circumstances, however, the community has identified that outside resources like grant funding are necessary to accomplish the action steps.

**I. Flooding** – As previously stated (see Chapter 2, Section I) and in previous planning cycles, flooding has caused considerable damage within Houston County over the past half century. While flooding is not the most frequent hazard facing the county, the impact of a single flood can be devastating. The Flood of 1994 is the most significant flood to impact the county. This 500 year flood caused severe damage including submerging several homes, flooding countless public and private facilities, and geographically dividing the City of Perry through the flooding of Big Indian Creek. Considering this impact, the impact of other floods, and flooding occurrences in the most recent planning cycle, the planning committee concurred with previous planning efforts that the presence of the Ocmulgee River, running along the eastern border of the county, along with the presence of several streams and creeks inside the county, necessitates mitigation goals and objectives, and ultimately action steps be taken pertaining to flooding.

In previous flooding instances, as mentioned above, considerable damage was done to structures within the community. Mitigation measures identified by the planning committee are intended to lessen the effect of such damage in the future. The mitigation goals and objectives identified for flooding are also consistent with the overall community mitigation goal of making Houston County and its municipalities less vulnerable to the effects of natural hazards through development of a coordinated mitigation strategy. A part of this coordinated mitigation strategy is the current and continued participation of Houston County and its three municipalities (Centerville, Perry and Warner Robins) in the National Flood Insurance Program (NFIP).

The Houston County Pre-Disaster Mitigation Planning Committee considered a range of mitigation options related to flooding and discussed mitigation measures to ensure that the community adequately responds to any deficiencies. This may result in alteration to current policies/practices, land use applications and building codes, if deemed necessary. In regards to facilities that are subject to flooding, there are no historic or special considerations that pose extraordinary challenges for the community. Several of the mitigation goals, objectives and action steps identified here are a part of the community's ongoing strategy for ensuring continued compliance with the National Flood Insurance Program.

**Mitigation Goal #1: Minimize losses to existing and future structures located within identified flood hazard areas.**

***Objective #1: Prevent future construction within identified flood hazard areas.***

**Action Step #1:** As a NFIP compliance strategy component, continue enforcement of building codes prohibiting construction within the flood hazard area; review existing code to determine need for alterations; continue to inspect each facility and require site engineering to determine if facility is to be constructed in flood hazard area.

Responsible Department or Agency: Building Inspection/Code Enforcement

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: Moderate

Status: Active, each jurisdiction has been actively engaged in this action step.

***Objective #2: Protect lives and existing property within identified flood hazard areas.***

**Action Step #1:** As a NFIP compliance strategy component, utilize GEMA/FEMA buyout programs to obtain property located within the flood hazard area; identify existing structures in the flood hazard area; pursue funding to move each of these structures.

Responsible Department or Agency: Board of Commissioners

Anticipated Cost: \$100K - \$500K

Existing & Potential Funding Sources: State and/or federal buyout funding programs

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: Low

Status: Deferred, neither Houston nor the municipalities utilized the buyout in the previous planning cycle.

**Action Step #2:** Apply for mitigation grant funding from state or federal sources to minimize losses in the event of a flood; match potential projects with potential sources of funding.

Responsible Department or Agency: Local Governments (BOC; mayors and councils)

Anticipated Cost: Unknown (project specific)

Existing & Potential Funding Sources: GEMA programs and other available programs

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: High

Status: Active

**Action Step #3:** Obtain permits from relevant environmental agencies and conduct regular clean-up and maintenance of the water-shed in Bay Gall Creek.

Responsible Department or Agency: Public Works Departments

Anticipated Cost: \$75,000 per year  
Existing & Potential Funding Sources: General Revenues and Outside Programs  
Jurisdiction: Houston County and the cities of Centerville and Warner Robins  
Timeframe: 2016-2021  
Priority: Moderate  
Status: Active, this is a new action item on which work has been ongoing but greater efforts are needed.

***Objective #3: Protect the environment from flood damages.***

**Action Step #1:** Ensure protection of wastewater treatment plants within Houston County.

Responsible Department or Agency: Public Works and Utilities Departments  
Anticipated Cost: Staff Time  
Existing & Potential Funding Sources: General Revenues  
Jurisdiction: Houston County & the cities of Perry and Warner Robins  
Timeframe: 2016-2021  
Priority: High  
Status: Active, local utility departments have consistently undertaken projects to ensure protection of treatment plants.

**Action Step #2:** Address stormwater management issues throughout the county and as applicable in each of the three municipalities.

Responsible Department or Agency: Public Works Departments  
Anticipated Cost: \$500K - \$1.5M  
Existing & Potential Funding Sources: Grant/Loan Assistance, SPLOST, stormwater utility fees  
Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins  
Timeframe: 2020  
Priority: High  
Status: Active, each jurisdiction has undertaken stormwater projects in the past planning cycle.

***Objective #4: Continue utilization of Georgia Search and Rescue (GSAR) Task Force IV in assisting disaster response and recovery within or outside of Houston County.***

**Action Step #1:** Continued identification and training of personnel to be members of the GSAR team.

Responsible Department or Agency: Houston County EMA  
Anticipated Cost: Staff Time  
Existing & Potential Funding Sources: General Revenues  
Jurisdiction: Houston County, the Cities of Centerville, Perry and Warner Robins & 11 surrounding jurisdictions  
Timeframe: 2016-2021

Priority: High

Status: Active, Houston County has remained an active participant in the GAR Task Force.

**Action Step #2:** Conduct Simulated Disaster Exercises for multiple emergency service organizations.

Responsible Department or Agency: Houston County EMA

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the Cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: High

Status: Active, these exercises are conducted on a monthly basis within the county.

**Summary of Changes:** One action step was added during this plan update cycle. The committee discussed a recurring difficulty with Bay Gall Creek having become full of brush and debris, making it a flooding hazard in the event of storms. Local agencies have had difficulty with the permitting and clean-up of the creek which spans three of the four Houston County jurisdictions. Utilizing the STAPLEE criteria, the committee determined to add this as Action Step #3, under Objective #2.

Beyond this addition, no significant changes were made to the language of the goal, objectives or action steps. The planning committee found these to be valid and still meaningful to the community based upon the STAPLEE criteria. The committee did determine that minor changes would need be included concerning the details of the actions steps. Under Objective #1, Action Step #1, the jurisdiction was changed to include all three municipalities. Under Objective #2, Action Step #1, the jurisdiction was changed to include all municipalities, the timeframe was changed to ongoing and the status was changed to active. For Action Step #2, the responsible department was changed to include each municipality, the timeframe was updated, and the status was moved to active. Under Objective #3, Action Step #1, Utilities Departments were added as Responsible Departments or Agencies because in the Warner Robins government there is a separate department for that function. Jurisdiction was also updated to include the municipalities. For Action Step #2, under this objective, the committee identified stormwater fees as a potential funding source and updated the timeframe.

The language of Objective #4 was altered from “Have GSAR” to “Continue utilization of GSAR” to more clearly reflect the relationship between the organizations. Additionally, the jurisdiction was updated to include the 11 participant counties.

**II. Tornado** – The planning committee reviewed and confirmed that the occurrence of a tornado in the county could cause widespread impact, including destruction of infrastructure, loss of property, and potentially, damage to the health and welfare of residents and visitors (see Chapter 2, Section II). Since the beginning of available records, there have been 18 tornadoes. The most impactful of these tornados was an F-4 tornado that touched down in Houston County in the spring of 1953. This event resulted in the death of 16 residents and caused injury to 300 others. Millions of dollars in property damage was also a product of this event that rampaged through the county’s populous areas. This twister also wreaked havoc on Robins Air Force Base, which is located in the northeast corner of the county. Since that twister, 17 additional twisters have been reported in the county, including one in the most recent planning cycle. Four of these 16 events caused injuries to residents and one additional death was caused. Due to these and the preponderance of tornado watches and warnings that did not materialize, the need for vigilance in preparing for these events is highlighted. Mitigation measures identified by the committee can be used by local officials to take appropriate actions whereby the community is potentially spared future losses.

The Houston County Pre-Disaster Mitigation Planning Committee considered a range of mitigation options related to tornados and determined mitigation goals, objectives and action steps that will help the community respond to any deficiencies. The goals and objectives identified here may result in the creation of new policies and procedures to administer implementation. Additionally, some existing policies, regulations or ordinances may need to be modified or amended.

In regards to facilities that are subject to tornado strikes, there are some historic or special considerations that pose extraordinary challenges for the community, such as the Log Dogtrot House, Davis-Felton Plantation, Robins Air Force Base, two hospitals, and numerous schools and government facilities. The mitigation goals and objectives identified for tornados are consistent with the overall community mitigation goal of creating a safe and livable environment for all Houston County citizens. Mitigation goals, objectives and action steps for tornados, as determined by the committee, are as follows:

**Mitigation Goal #1: Lessen the effects of tornados on the community.**

***Objective #1: Protect human lives from the effects of tornados.***

**Action Step #1:** Obtain and distribute materials and information to help educate the public on tornado safety.

Responsible Department or Agency: Houston County EMA / American Red Cross/ Board of Education

Anticipated Cost: \$1K Annually

Existing & Potential Funding Sources: Grants, General Revenues, Donations

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: Moderate

Status: Active, these efforts are conducted annually prior to, and during, tornado season and during tornado awareness month.

**Action Step #2:** Maintain active status with the CodeRed notification system.

Responsible Department or Agency: Houston County EMA

Anticipated Cost: 35,000 per year

Existing & Potential Funding Sources: Special Tax Revenue & General Revenues

Jurisdiction: Houston County

Timeframe: Ongoing

Priority: Moderate

Status: Active, the county is currently active within the notification system.

**Objective #2: Prepare emergency personnel to respond to the scene of a tornado.**

**Action Step #1:** Update and maintain call-in procedures and contact information for off-duty emergency personnel (from all jurisdictions) when needed at the scene of a disaster/hazard event.

Responsible Department or Agency: Houston County EMA

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: Moderate

Status: Active, the procedures have been developed and each jurisdiction is responsible for providing their officer's information to HEMA.

**Action Step #2:** Continually update and implement a mobilization plan to detail the actions of public safety officials.

Responsible Department or Agency: Houston County EMA

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: Low

Status: Active, Houston County EMA has a practice of continually reviewing and updating the mobilization plan.

**Summary of Changes:** During this planning cycle, two significant changes were made to the language of the goal, objectives or action steps. A new action step was considered by the committee and utilizing the STAPLEE criteria was added under Objective #1. The new action step is to, ***“Maintain active status with the CodeRed notification system.”*** This will allow for the continued use of the county-wide alert system. Under Objective #2, Action Step #1, ***“Develop call-in procedures for off-duty emergency personnel (from all jurisdictions) when needed at the scene of a disaster/hazard event”*** was determined by

the Planning Committee to have been completed. Since the time of the previous planning cycle, Houston County EMA facilitated the development and adoption of cross-jurisdictional call-in procedures. The committee discussed the need to maintain call-in procedures and contact information for emergency services personnel. Because of this Action Step #1 was replaced with a new action step that would build upon the completed action step.

The remaining, non-substantially changed items that were determined by the Planning Committee to be valid and meaningful to the community based upon the STAPLEE criteria. The committee determined that minor changes would need be included concerning the details of the actions steps. Under Objective #1, Action Step #1, the Board of Education was added to the list of responsible agencies due to their vital role in the distribution of tornado safety materials. Additionally, the timeframe was updated to specifically reference Tornado Awareness Month which is held during February. Action Step #2 under Objective #2, language was added to mention the need to regularly update the mobilization plan as the need occurs.

**III. Drought** – In previous planning cycles it has been acknowledged that drought, itself, does not often affect critical facilities within the community. The planning committee remarked further that much of the municipally provided water supply is ample regardless of drought conditions (though private wells are susceptible). Previous committees and the current committee have recognized, however, that parts of the community can be devastated by long-term drought conditions. The chief condition noted was the loss of economic productivity due to crop loss and timber damage. Despite recent development, much of Houston County, particularly the southern portion, remains largely agricultural and particularly susceptible to damage from drought. When drought conditions occur, the crops, and those in the agricultural industry, tend to suffer severely. Also of concern, much of the county remains forest and woodland. Drought conditions, combined with lightning, negligence and other occurrences can result in fires that may grow and spread. Since available records in 1997, there have been 21 instances of drought within the county, including one in the past planning cycle.

The current planning committee reviewed, updated and identified several non-structural mitigation measures in hopes of minimizing the potentially destructive effects of drought-inflicted wildfires. The planning committee's focus is on the preservation of life and property. This may result in modifications to current policies and the implementation of local ordinances to ensure suggested mitigation measures are initiated. Specific mitigation goals, objectives and action steps for drought inflicted wildfires, as determined by the committee, are as follows:

**Mitigation Goal #1:** To minimize losses of life and property in Houston County due to fires resulting from drought conditions.

**Objective #1:** *To protect facilities and vulnerable populations from the effects of fires resulting from drought conditions.*

**Action Step #1:** Coordinate efforts with Georgia Forestry Commission to identify critical facilities in forest/brush-fire hazard areas and develop a Community Wildfire Protection Plan.

Responsible Department or Agency: Houston County EMA and Georgia Forestry Commission

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County

Timeframe: 2016

Priority: Moderate

Status: Active, the Georgia Forestry Commission began plan development in the former planning cycle and will finalize it in the early parts of this planning cycle.

**Action Step #2:** Continue the education and awareness campaign directed towards homeowners on the importance of clearing underbrush a safe distance from homes and structures.

Responsible Department or Agency: Houston County EMA and Georgia Forestry Commission

Anticipated Cost: \$500 / Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County and municipalities

Timeframe: 2016-2021

Priority: Moderate

Status: Active, through two on-going programs. HEMA and the Georgia Forestry Commission engage in the awareness and education campaigns.

***Summary of Changes:*** No significant changes were made to the language of the goal, objectives or action steps. The planning committee found these to be valid and still meaningful to the community based upon the STAPLEE criteria. The committee did determine that minor changes would need be included concerning the details of the actions steps.

The planning committee determined that Action Step #1 was progressing and nearing completion in the upcoming year. For this reason, the step will continue in the upcoming planning cycle. The Georgia Forestry Commission was also added as a responsible department for developing the “Community Wildfire Protection Plan.” Based upon current language, Action Step #2 was determined to have been completed through the initiation of the Fire Wise Program and the Ready Set Go Program. The committee noted the need for continued campaigns for underbrush clearance and determined that the language should be changed to reflect this. The Georgia Forestry Commission was also added as a responsible agency for this step.

**IV. Thunderstorm Winds** – Dating back to 1962, there have been 183 events of thunderstorm wind within Houston County. In the past five year planning cycle, 29 occurrences of thunderstorm wind have taken place. This means that over the past five years Houston County has averaged 5.8 thunderstorm wind events per year. The frequency of these events is the greatest among all hazards affecting the county. In (see Chapter 2, Section IV). While some of these events are not capable of causing significant damage, nearly 50 percent of the winds since 2000 have caused greater than \$5,000 in damage. These heavy thunderstorm winds rarely affect critical facilities within the community. Despite this, the committee confirmed that previous planning committee’s belief that these winds can make small negative impacts to a facility, primarily the roofs and windows. With this in mind, the committee determined to continue to take steps to alleviate the threats caused by this hazard.

The Houston County Pre-Disaster Mitigation Planning Committee reviewed, updated, and identified a range of mitigation options related to thunderstorm winds, and identified both structural and non-structural mitigation measures to ensure that the community adequately tackles all issues related to thunderstorm winds. These measures may necessitate modifications to current policies and the implementation of appropriate local ordinances. The same historic and/or special considerations faced by the threat of tornados (Log Dogtrot House, Davis-Felton Plantation, Robins Air Force Base, hospitals, schools, and government facilities) also apply to thunderstorm winds, but with a lesser degree of severity and potential for damage. The mitigation goals and objectives identified for thunderstorm winds are consistent with the overall community mitigation goal of creating a safe and livable environment for all Houston County citizens. Mitigation goals, objectives and action steps for thunderstorm winds, as determined by the committee, are as follows:

**Mitigation Goal #1: Protect life and property in the event of strong thunderstorm winds.**

***Objective #1: Take measures to protect the lives of Houston County residents in the event of strong thunderstorm winds.***

**Action Step #1:** Educate and inform the public through safety announcements.

Responsible Department or Agency: Houston County EMA / American Red Cross / Public Safety Organizations / Board of Education

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: Moderate

Status: Active

***Objective #2: Take measures to protect property in the event of strong thunderstorm winds.***

**Action Step #1:** Identify and remove trees/limbs that could damage structures and/or power lines.

Responsible Department or Agency: Public Works Departments / Power Companies

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: High

Status: Active, the local governments and utility companies have taken constant action towards this step.

**Action Step #2:** Continued enforcement of existing codes that require mobile homes / manufactured homes to be tied-down and regularly update the existing code in accordance with best practices.

Responsible Department or Agency: Building Inspection / Code Enforcement

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: High

Status: Active, each jurisdiction have these codes and enforcement capabilities.

**Summary of Changes:** No significant changes were made to the language of the goal, objectives or action steps. The plan committee found these to be valid and still meaningful to the community based upon the STAPLEE criteria. The committee did determine that minor changes would need be included concerning the details of the actions steps.

Under Objective #1, Action Step #1, the Board of Education and Public Safety Organizations were added as responsible agencies. Action Step #1, under Objective #2, was altered to recognize the presence of multiple power companies in the county. Action Step #2 was updated to include the need for regularly updating the code as best practices are changed.

**V. Lightning** – The previous plan amendment effort identified the increased prevalence of damage due to severe lightening. Since 1998, there have been 18 reported occurrences of lightening. Of these events, 13 caused damage of greater than \$5,000 with three causing more than \$100,000 in damage. (see Chapter 2, Section V). In 2012, a lightning event in Warner Robins resulted in damage of \$300,000. The planning committee determined that this demonstrated the opportunity for damage to critical facilities, though to date, none have been negatively impacted. This coupled with the realization that a 2008 event caused injuries to 12 people, lead the committee to determine that several steps could be undertaken to ensure that the effects of lightning on the community are minimized

The Houston County Pre-Disaster Mitigation Planning Committee considered a range of mitigation options related to lightning, and identified both structural and non-structural mitigation measures to ensure that the community adequately tackles all issues related to lightning events. These mitigation measures may result in alteration to current policies and practices in order to ensure proper implementation steps are undertaken. The county’s historic and special considerations pose the same challenges for local officials and community planners when developing mitigation strategies for lightning. The mitigation goals and objectives identified for lightning are consistent with the overall community mitigation goal of creating a safe and livable environment for all Houston County citizens and for making Houston County and its three municipalities less vulnerable to the effects of natural hazards. Mitigation goals, objectives and action steps for lightning, as determined by the planning committee, are as follows:

**Mitigation Goal #1: Protect Houston County from damage due to lightning strikes.**

***Objective #1: Protect Houston County residents from lightning strikes.***

**Action Step #1:** Educate and inform the public on the potential dangers and damage associated with lightning strikes.

Responsible Department or Agency: Houston County EMA / American Red Cross / Board of Education

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: Moderate

Status: Active, the responsible entities provided educational opportunities to the public through the past planning cycle.

***Objective #2: Protect critical facilities from damage due to lightning strikes.***

**Action Step #1:** Obtain back-up power supplies (i.e. generators) for critical facilities where needed.

Responsible Department or Agency: Local governments (BOC / Mayor & Council)

Anticipated Cost: Unknown (project specific)

Existing & Potential Funding Sources: GEMA Pre-Disaster Mitigation Grant Programs

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2021

Priority: High

Status: Active, in the previous planning cycle, the local governments placed backup generators at many, though not all, key facilities.

***Summary of Changes:*** During this planning cycle, one significant change was made to the language of the goal, objectives or action steps. Flint Energies successfully completed Action Step #2, ***Installation of surge protectors on power company critical facilities***, which was found under Objective #2. With this completion, the planning committee struck this item from the list.

The remaining, non-substantially changed items that were determined by the planning committee to be valid and meaningful to the community based upon the STAPLEE criteria. The committee determined that minor changes would need be included concerning the details of the actions steps. Under Objective #1, Action Step #1, the responsible agency was amended to include the Board of Education. Under Objective #2, Action Step #1, the responsible agency was amended to include the municipal governments.

**VI. Winter Storms** – Within Houston County there is a legitimate concern over the threat of periodic winter storms (see Chapter 2, Section VI). Houston County does not receive the amounts of snow and ice that other areas of the country receive; however, this alone poses a problem in that the community does not have the equipment necessary to combat treacherous weather conditions. In the Middle Georgia region, the formation of ice on roads, tree limbs, and power lines is the cause of most damage. The Houston County Pre-Disaster Mitigation Planning Committee determined during the update of this plan several steps could be undertaken to ensure that the effects of winter storms within the community are minimized.

A range of options were considered, and both structural and non-structural mitigation measures were identified in order to adequately address all issues related to winter storm conditions. Implementation of these measures may involve altering or modifying current policies and practices. Currently, there are no historic or special considerations that pose extraordinary challenges for the community related to the effects of winter storms. Also, the mitigation goals and objectives identified for winter storms are consistent with the overall community mitigation goal of creating a safe and livable environment for all Houston County citizens and for making Houston County and its three municipalities less vulnerable to the effects of natural hazards. Mitigation goals, objectives and action steps for winter storms, as determined by the committee, are as follows:

**Mitigation Goal #1: Protect Houston County from dangers and damage associated with winter storms.**

***Objective #1: Protect the lives of Houston County residents in the event of a severe winter storm.***

**Action Step #1:** Develop and maintain a list of established shelter locations; inform the public of open and working shelter locations to which they can go in the event of widespread power outages.

Responsible Department or Agency: Houston County Health Department / American Red Cross

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues, donations

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2017

Priority: Low

Status: Active, the responsible entities have maintained these lists and advertise during the winter months.

***Objective #2: Protect the property of Houston County residents in the event of a severe winter storm.***

**Action Step #1:** Identify and maintain a list of high-danger areas where ice typically occurs on roadways.

Responsible Department or Agency: Houston County EMA / Public Works Departments  
Anticipated Cost: Staff Time  
Existing & Potential Funding Sources: General Revenues  
Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins  
Timeframe: 2016-2021  
Priority: Moderate  
Status: Active, there is a list of areas currently revisited annually.

***Summary of Changes:*** No significant changes were made to the language of the goal, objectives or action steps. The planning committee found these to be valid and still meaningful to the community based upon the STAPLEE criteria. The committee did determine that minor changes would need be included concerning the details of the actions steps.

Action Step #1, under Objective #1, was updated to reflect a new timeframe. In addition to the update of the step timeframe, the language in Action Step #1, under Objective #2, was updated to include maintaining a list of high-danger areas.

## **CHAPTER 5: LOCAL TECHNOLOGICAL HAZARD MITIGATION GOALS & OBJECTIVES / COMMUNITY MITIGATION GOALS, POLICIES & VALUES**

**I. Hazardous Materials Spills** – During the plan update process, the Houston County Pre-Disaster Mitigation Planning Committee validated and confirmed that hazardous materials spills constitute the most prevalent technological hazard potentially damaging to the community (see Chapter 3, Section I). There have been a considerable number of minor spills in recent history, but this does not limit the potential of a catastrophic spill within the community. The threat is exacerbated due to the fact that there are several industries within the community that utilize large quantities of hazardous materials, including Robins Air Force Base. Hazardous chemicals are transported into and out of the county on a daily basis as a result of the base. Therefore, measures must be undertaken to ensure that the roads and rails of the Houston County community are protected.

The planning committee also identified and validated several methods of public education and awareness regarding technological hazard mitigation. They include the following: implementing a countywide crisis alert or notification system, distribution of informational brochures or pamphlets, public and private sector briefings, workshops and demonstrations, Public Service Announcements, etc.

The planning committee identified both structural and non-structural mitigation measures to ensure that the community adequately addresses all relevant issues. This may result in alterations to current policies and practices to ensure that proper mitigation measures are undertaken. In regards to facilities that are subject to hazardous materials spills, there are no historic or special considerations that pose extraordinary challenges for the community. Mitigation goals and objectives identified for hazardous materials spills are consistent with the overall community mitigation goal of creating a safe and livable environment for all Houston County citizens and for making Houston County and its three municipalities less vulnerable to the effects of technological hazards. Mitigation goals, objectives and action steps for hazardous materials spills, as determined by the committee, are as follows:

### **Mitigation Goal #1: Protect Houston County from damages associated with Hazardous Materials Spills.**

***Objective #1: Ensure public safety officials are trained to contain hazardous material spills.***

**Action Step #1:** Continue to train adequate numbers of personnel to respond to a hazardous materials spill.

Responsible Department or Agency: Houston County EMA and Municipal Fire Departments

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016-2020

Priority: High

Status: Active, each fire department continues to train new employees and current staff in confronting hazardous material spills.

***Objective #2: Protect the environment in Houston County in the event of a hazardous materials spill.***

**Action Step #1:** Create a centralized and compatible map of the stormwater system to provide emergency personnel with the knowledge of shut-off points in the event of a hazardous material spill.

Responsible Department or Agency: Public Works / Engineering Departments

Anticipated Cost: Staff Time

Existing & Potential Funding Sources: General Revenues

Jurisdiction: Houston County & the cities of Centerville, Perry and Warner Robins

Timeframe: 2016

Priority: Moderate

Status: Deferred, this activity has not been undertaken but is still a priority of the jurisdictions.

***Summary of Changes:*** During the update process, the planning committee elected to keep but alter the current action steps to more accurately reflect current issues. Action Step #1, under Objective #1, was changed to reflect the current training of personnel. While personnel are currently being trained, the committee believed it important for these personnel to be continued throughout the next planning cycle in an ongoing manner. Utilizing the STAPLEE criteria, the committee found that there were weaknesses in Action Step #1, under Objective #2. The primary reason why this has not been accomplished is the lack of a centralized and compatible mapping system amongst all jurisdictions. Committee discussions indicated that many efforts across many facets of hazard mitigation and other government service would benefit from increased technological connectivity amongst the governments. For this reason, the action step was amended to reflect the need for this connectivity.

## **CHAPTER 6: EXECUTING THE PLAN**

**I. Implementation / Action Plan:** The Houston County Pre-Disaster Mitigation Plan update process was overseen by HEMA. Facilitation of the planning process was conducted by the Middle Georgia Regional Commission. The Houston County Board of Commissioners authorized submission of the plan update to both GEMA and FEMA for their respective approvals. HEMA received favorable responses from each of these agencies, and the Board of Commissioners and Councils reconvened and formally adopted this plan and directed its implementation. Adoption dates for each of the governments can be seen below:

- Houston County Board of Commissioners – 1-5-16
- City of Centerville - 1-5-16
- City of Perry - 1-5-16
- City of Warner Robins - 1-4-16

As a result of this update process, the HEMA Director shall assume the responsibility of upkeep and maintenance of the plan. It shall be the responsibility of the HEMA Director to ensure that the plan is utilized as a guide for undertaking mitigation measures within the community. The HEMA Director shall also be authorized to reconvene the planning committee to periodically review and update the plan throughout the useful life of the plan, not to exceed five years.

Through this process, the HEMA Director shall identify mitigation projects that have been undertaken within the community. During subsequent updates to the plan, these projects shall be noted within the planning document to indicate their status (i.e. completed, underway, postponed, cancelled, etc.). Additionally, the planning committee shall continue to brainstorm, identify, and prioritize any additional mitigation projects that the community can/should undertake.

Each mitigation action item identified in this plan was prioritized by the members of the Houston County Pre-Disaster Mitigation Plan update committee. Priority categories consist of High, Moderate and Low. The methodology involved a comprehensive review of the projects identified in the original plan, a determination as to whether those projects are still active and/or relevant to the community, and identification of new projects to be included in the plan update. Several criteria were set forth to assist committee members in the prioritization of these projects. These criteria include perceived cost benefit of the action, availability of potential funding sources, overall feasibility, measurable milestones within the project, whether multiple objectives were addressed, and political support for the project.

Through the prioritization process, several projects emerged as being of greater priority than others. Some of the projects involved expending considerable amounts of funds to undertake the action. Other projects allowed the community to pursue completion of the project under 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 (see Worksheet #4 in Appendix D). If there was a high price tag associated with a project, yet a minimal number of people would benefit, the project 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 projects were evaluated to determine the favorability of the benefit in relation to the cost associated with completing the project.

Additionally, committee members utilized the criteria referenced above (availability of potential funding sources, overall feasibility, measurable milestones within the project, whether multiple objectives were addressed, and political support for the project) in order to determine the final prioritization of the project. Through discussion and debate, the committee collectively ranked their priorities, obtained consensus, and inserted the prioritized list of projects into the plan.

A comprehensive review on the part of the Executive Subcommittee substantiated that the goals, objectives, strategies and action items identified in this Houston County Pre-Disaster Mitigation Plan update are consistent with other important community planning documents (see Appendix B and C). These include the Middle Georgia State College Pre-Disaster Mitigation Plan, the Houston County/Cities of Centerville, Perry and Warner Robins Joint Comprehensive Plan, the Joint Solid Waste Management Plan (SWMP), the Middle Georgia Regional Plan, the Houston County Emergency Operations Plan, the Middle Georgia Regionally Important Resources (RIR) Plan, and the Middle Georgia Economic Development District's Comprehensive Economic Development Strategy (CEDS). Additionally, over the previous five-year planning period, the Houston County Pre-Disaster Mitigation Plan was utilized by community planners and local officials during the update of these other planning mechanisms, and when appropriate, the Plan's data, mitigation strategies and action steps were incorporated into these documents.

All action steps identified in this update of the Houston County Pre-Disaster Mitigation Plan will be evaluated for possible inclusion in the next update of the Joint Houston County/Cities of Centerville, Perry and Warner Robins Comprehensive Plan, including the Community Agenda and Community Work Program portion of that plan. The comprehensive plan is due for update in 2016. In the past, local comprehensive planning efforts have considered previous versions of the mitigation plan. This activity will be further emphasized in the upcoming plan development. In addition, relevant sections of this Pre-Disaster Mitigation Plan update will be included in the next revision of the Houston County Emergency Operations Plan. This has been a frequent practice and was done within the past planning cycle. Houston County and the cities are committed to ensuring all relevant mitigation strategies identified in this plan will be incorporated and integrated into existing plans, as well as all applicable future planning efforts.

**II. Evaluation/Monitoring/Updating:** As previously mentioned, the HEMA Director will be charged with ensuring that this plan is monitored and periodically updated in subsequent years. An analysis of the previously approved plan's method and schedule for monitoring, evaluating, and updating the plan has indicated a high degree of success and

satisfaction among local officials and community stakeholders. The method of evaluation employed, as agreed upon by the Pre-Disaster Mitigation Planning Committee, will consist of utilizing a report of accomplishments to illustrate what actions/projects were undertaken, the completion date (or current status) of those actions/projects, the cost of the actions/projects, and whether the actions/projects were deemed to be successful. Pursuant to the requirements set forth in the Disaster Mitigation Act of 2000, the community is again required to update and evaluate the plan no more than five years after its adoption. At the discretion of the Houston County EMA Director, the committee that is designated to review and update the plan will convene in order to evaluate progress within the community. This planning update sparked a conversation about a more formalized process for annual review and monitoring of the plan. The HEMA Director will engage a small committee in a formal process every year to assure that the implementation is accomplished and to discuss relevant issues that have arisen.

No later than the conclusion of the five year period following approval of the plan update, the HEMA Director will submit a revised Pre-Disaster Mitigation Plan to GEMA for its approval. HEMA and the community intends to utilize a process similar to the one used for this update. It is important to note that the plan update process, as established by the planning committee, is subject to change, depending upon subsequent regulations and/or requirements set forth by GEMA and FEMA. The community will alter its plan update requirement as becomes necessary and prudent.

**III. Plan Update and Maintenance/Public Involvement:** Because the Pre-Disaster Mitigation Plan is intended to help ensure a safe and livable environment for all Houston County citizens, it is imperative that citizen involvement be an integral part of the planning process. Since adoption of the most recent planning cycle's Houston County Pre-Disaster Mitigation Plan in 2010, citizens have been kept involved and apprised of plan progress through such forums as regularly scheduled meetings of the Board of Commissioners and the different city councils. This same level of public education and awareness and citizen involvement will continue over the next five years until the next required update of the Houston County Pre-Disaster Mitigation Plan. When specific issues dictate, public hearings will be conducted, and all other community planning efforts (Comprehensive Plan, Regional Plan, CEDS, etc.) will afford citizens the opportunity to participate in and comment on the need to incorporate hazard mitigation initiatives.

## **CHAPTER 7: CONCLUSION**

Ten years after the development of the first Houston County Pre-Disaster Mitigation Plan and five years after the first update, the community reengaged the planning process. Since the first plan was developed, the committee has obtained a great deal of information regarding disaster history, the presence of natural and technological hazards, and the impacts that these hazards present to the community. The update process began with the identification and verification of hazards that have occurred within Houston County over the past 62 years. This was followed with updating critical facilities data within the community. Assessments were then made to determine the vulnerability of the community to various hazards and determine their potential losses. After evaluation of the potential losses within the community, goals and strategies were developed to implement mitigation measures within the community. These goals and strategies were then prioritized and were used to formulate an action plan that the community can undertake to make the community a safer place to live and work.

Additionally, the plan update process included reconvening the planning committee and continued citizen involvement through two public hearings that were conducted in order to provide members of the community with the opportunity to comment and make suggestions about disaster mitigation, both present and future, within the community. It is hoped that this plan update will serve well the citizens of Houston County and as stated in the vision statement found at the beginning of this plan, will help to foster a countywide hazard mitigation mindset through local government leadership and community-based partnerships, leading the way to a safe and livable environment for all Houston County citizens.

**Sources** – Numerous sources were utilized to ensure that 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 *How-to Guides* for Local Mitigation Planning

GEMA Local Multi-Hazard Mitigation Planning Guidance

*2001 Middle Georgia Hazard Mitigation Resource CD*

Infogroup, Inc. 2015

Flood Insurance Study: Houston County and Incorporated Areas, 2007

*A Land So Dedicated: A History of Houston County, Georgia* (Nelson)

*Georgia Tornado Database 1808 – 2002* (Westbrook)

*The Macon Telegraph*

*The Houston Home Journal*

Web Sites:

Center for Effective Government (<http://www.foreffectivegov.org/>)

City of Perry, GA ([www.perry-ga.gov](http://www.perry-ga.gov))

City of Warner Robins ([www.warner-robins.org](http://www.warner-robins.org))

ESRI Business Analyst, 2015

FEMA ([www.fema.gov](http://www.fema.gov))

GEMA ([www.gema.state.ga.us](http://www.gema.state.ga.us))

Georgia Department of Education ([www.doe.k12.ga.us](http://www.doe.k12.ga.us))

Georgia Department of Labor ([www.dol.state.ga.us](http://www.dol.state.ga.us))

Houston County, GA ([www.houstoncountyga.com](http://www.houstoncountyga.com))

National Climatic Data Center ([www.ncdc.noaa.gov](http://www.ncdc.noaa.gov))

Roadside Georgia: National Register of Historic Places ([www.roadsidegeorgia.com](http://www.roadsidegeorgia.com))

Tornado History Project ([www.tornadohistoryproject.com](http://www.tornadohistoryproject.com))

Other Sources:

American Red Cross, Middle Georgia Chapter

City of Centerville

City of Perry

City of Warner Robins

Flint Energies

Georgia Forestry Commission

Georgia Mitigation Information System (GMIS)

Houston County Board of Commissioners

Houston County Board of Education

Houston Healthcare

Houston County Health Department

Houston County Tax Assessor

Middle Georgia State College – Warner Robins Campus

Middle Georgia Regional Commission Area Agency on Aging (AAA)

Robins Air Force Base (RAFB)

## **Appendix A**

### **Hazard Identification, Risk Assessment and Vulnerability**

- Hazard Descriptions
- GEMA Worksheets #3a
- Hazard Area Maps
- GMIS Critical Facility Inventory Reports

**Description of Flood Hazard** - According to *FEMA How-to Guide #2: Understanding Your Risks*, a flood is a natural event for rivers and streams. Excess water from snowmelt, rainfall, or storm surge accumulates and overflows onto the banks and adjacent floodplains. Floodplains are lowlands, adjacent to rivers, lakes, and oceans that are subject to recurring floods. Hundreds of floods occur each year within the United States, making it one of the most common hazards in all 50 states and U.S. Territories. Floods kill an average of 150 people a year nationwide. They can occur at any time of day or night. Floodplains in the U.S. are home to over nine million households. Most injuries and deaths occur when people are swept away by flood currents, and most property damage results from inundation by sediment-filled water (Understanding Your Risks, 2-12).

Within any given geography, many different variables must be considered when determining if an area is susceptible to flooding. Topography, ground saturation, soil permeability, rainfall intensity and duration, drainage, and vegetative cover, to only name a few, contribute to the determination of whether or not an area will flood. Large amounts of rainfall over a short amount of time can result in flash floods, which routinely do minimal damage. Should the soil be saturated or super-saturated, even a small amount of rainfall can cause flooding issues. As more and more land is being developed, the presence of impermeable surfaces, roads, driveways, and parking lots causes an increase in the likelihood of flooding within an area.

**Description of Tornado Hazard** - A tornado is a violently rotating column of air extending from a thunderstorm cloud to the ground. The most violent tornados are capable of tremendous destruction, in some cases extreme devastation, with wind speeds that can exceed 250 miles per hour. Damage paths can be of varying widths up to and exceeding one mile, with the length of the path up to fifty miles long. Tornado season in Georgia typically runs from March through August; however, tornados can strike at any time of year if the deadly atmospheric conditions are present. Thunderstorms and hurricanes spawn tornadoes when cold air overrides a layer of warm air, causing the warm air to rise rapidly. The winds produced from hurricanes, earthquake-induced fires, and wildfires have also been known to produce tornadoes (Understanding Your Risks, 2-20).

Tornadoes can topple buildings, roll mobile homes, uproot trees, hurl people and animals through the air for hundreds of yards, and fill the air with lethal wind-borne debris. Tornadoes do their destructive work through the combined action of their strong rotary winds and the impact of wind-borne debris. Tornadoes travel at an average speed of 30 miles per hour, but speeds ranging from 0 to 70 miles per hour have been reported. Most tornados move from the southwest to the northeast but the direction may be erratic and subject to sudden change.

Tornadoes are rated and categorized by damage pattern:

**Category EF0** – Gale Tornado (65-85 mph) – Light Damage

**Category EF1** – Moderate Tornado (86-110 mph) – Moderate Damage

**Category EF2** – Significant Tornado (111-135 mph) – Considerable Damage

**Category EF3** – Severe Tornado (136-165 mph) – Severe Damage

**Category EF4** – Devastating Tornado (166-200 mph) – Devastating Damage  
**Category EF5** – Incredible Tornado (Over 200 mph) – Incredible Damage

**Description of Drought Hazard** - By definition, drought is a prolonged period of moisture deficiency. Drought conditions affect the cultivation of crops, as well as water availability and water quality. Drought is also a key factor in wildfire development. Drought conditions make natural fuels (grass, brush, trees, dead vegetation, etc.) more fire-prone. A drought lasting 1-3 months is considered short term; 4-6 months is considered immediate; and more than 6 months is considered long term.

**Description of Lightning Hazard** – By definition, all thunderstorms have lightning associated with them. Lightning occurs when the difference between the positive and negative charges (the electrical potential) becomes great enough to overcome the resistance of the insulating air and to force a conductive path for current to flow. Electrical potential can be as much as 100 million volts. Lightning strikes proceed from cloud to cloud, cloud to ground, or where high structures are involved, from ground to cloud. In Georgia, lightning strikes peak in July, with June and August being the next two months of highest occurrence.

**Description of Thunderstorm Winds Hazard** - Thunderstorm winds are generally short in duration involving straight-line winds and/or gusts in excess of 50 miles per hour. Thunderstorm winds tend to affect areas with significant tree stands, areas with exposed property and infrastructure, and above ground utilities. Thunderstorm winds can cause power outages, cause transportation and economic disruptions, significant property damage, and pose a high risk for injuries or loss of life. The National Weather Service defines a severe thunderstorm as one that produces winds greater than 57 miles per hour and/or hail  $\frac{3}{4}$  inch or greater in diameter. These parameters are considered to be capable of inflicting damage on a community.

**Description of Winter Storm Hazard** – Winter storms bring the threat of freezing rain and ice storms. Freezing rain is rain occurring when surface temperatures are below freezing. The moisture falls in liquid form, but freezes upon impact, resulting in a coating of ice glaze on exposed objects. This occurrence is classified as an ice storm when a substantial glaze layer accumulates. Ice forming on exposed objects generally ranges from a thin glaze to coatings in excess of one inch thick. A heavy accumulation of ice, especially when accompanied by high winds, devastates trees and power lines. Sidewalks, streets, and highways become extremely hazardous to pedestrians and motorists. Additionally, freezing temperatures and ice accumulations can result in severe crop losses.

Sleet is also associated with winter storms. Sleet is usually recognized as frozen rain drops, or ice pellets, which bounce when hitting the ground or other objects. Sleet does not typically stick to trees and overhead wires, but sleet in sufficient depth does cause hazardous driving conditions.

**Description of Hazardous Material Spill Hazard** - Hazardous materials are substances that are harmful to the health and safety of people and property. Facilities that produce, process, store, or ship hazardous materials are at risk for spills, as well as facilities that treat or dispose of hazardous waste. Hazardous material spills are generally classified as one of two types: transportation or fixed. Transportation spills occur on or along roads or railways as hazardous substances are transported from one location to another. Fixed location spills can occur at any facility where they are stored, maintained, or handled.

# GEMA Worksheet #3a

# Inventory of Assets

Jurisdiction: Houston County

Hazard: Flood

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	59,707	1,751	2.933%	5,016,457,402	147,115,362	2.933%	143,205	4,200	3%
Commercial	2,954	124	4.198%	713,245,252	29,939,882	4.198%	6,707	282	4%
Industrial	143	12	8.392%	72,671,900	6,098,341	8.392%	1,246	105	8%
Agricultural	26	1	3.846%	1,637,800	62,992	3.846%	19	1	4%
Religious/ Non-profit	373	23	6.166%	240,462,201	14,827,428	6.166%		0	#DIV/0!
Government	3,221	19	0.590%	645,922,000	3,810,158	0.590%	5,397	32	1%
Education	112	3	2.679%	410,135,100	10,985,762	2.679%	545	15	3%
Utilities	2	0	0.000%	131,301	0	0.000%	0	0	#DIV/0!
<b>Total</b>	<b>66,538</b>	<b>1,933</b>	<b>2.905%</b>	<b>7,100,662,956</b>	<b>212,839,925</b>	<b>2.997%</b>	<b>157,119</b>	<b>4,633</b>	<b>3%</b>

**Task B. Determine whether (and where) you want to collect additional inventory data.**

- |   | Y        | N        |
|---|----------|----------|
| 1. Do you know where the greatest damages may occur in your area?   | <u>X</u> |          |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | <u>X</u> |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  |          | <u>X</u> |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   |          | <u>X</u> |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? |          | <u>X</u> |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   |          | <u>X</u> |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | <u>X</u> |

## GEMA Worksheet #3a

## Inventory of Assets

**Jurisdiction:** Houston County

**Hazard:** Tornado, Thunderstorm Winds, Lightning, Drought, Winter Storms

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	59,707	59,707	100.000%	5,016,457,402	5,016,457,402	100.000%	143,205	143,205	100%
Commercial	2,954	2,954	100.000%	713,245,252	713,245,252	100.000%	6,707	6,707	100%
Industrial	143	143	100.000%	72,671,900	72,671,900	100.000%	1,246	1,246	100%
Agricultural	26	26	100.000%	1,637,800	1,637,800	100.000%	19	19	100%
Religious/ Non-profit	373	373	100.000%	240,462,201	240,462,201	100.000%		0	#DIV/0!
Government	3,221	3,221	100.000%	645,922,000	645,922,000	100.000%	5,397	5,397	100%
Education	112	112	100.000%	410,135,100	410,135,100	100.000%	545	545	100%
Utilities	2	2	100.000%	131,301	131,301	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>66,538</b>	<b>66,538</b>	<b>100.000%</b>	<b>7,100,662,956</b>	<b>7,100,662,956</b>	<b>100.000%</b>	<b>157,119</b>	<b>157,119</b>	<b>100%</b>

**Task B. Determine whether (and where) you want to collect additional inventory data.**

- |   | <b>Y</b> | <b>N</b> |
|---|----------|----------|
| 1. Do you know where the greatest damages may occur in your area?   | <u>X</u> |          |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | <u>X</u> |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | <u>X</u> |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | <u>X</u> |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | <u>X</u> |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   |          | <u>X</u> |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | <u>X</u> |

# GEMA Worksheet #3a

# Inventory of Assets

Jurisdiction: Houston County

Hazard: Hazardous Material Spills

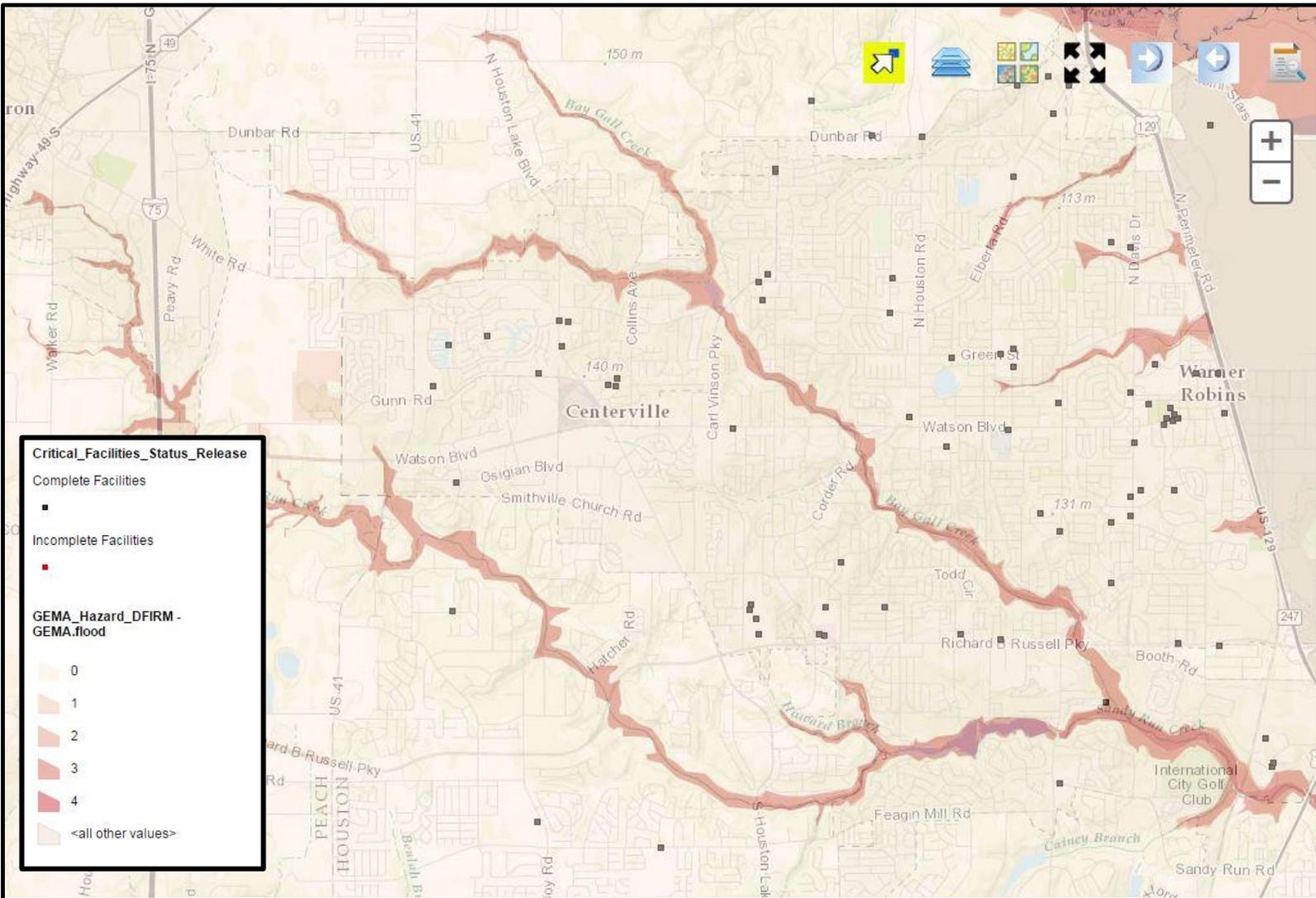
**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	59,707	59,707	100.000%	5,016,457,402	5,016,457,402	100.000%	143,205	143,205	100%
Commercial	2,954	2,954	100.000%	713,245,252	713,245,252	100.000%	6,707	6,707	100%
Industrial	143	143	100.000%	72,671,900	72,671,900	100.000%	1,246	1,246	100%
Agricultural	26	26	100.000%	1,637,800	1,637,800	100.000%	19	19	100%
Religious/ Non-profit	373	373	100.000%	240,462,201	240,462,201	100.000%		0	#DIV/0!
Government	3,221	3,221	100.000%	645,922,000	645,922,000	100.000%	5,397	5,397	100%
Education	112	112	100.000%	410,135,100	410,135,100	100.000%	545	545	100%
Utilities	2	2	100.000%	131,301	131,301	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>66,538</b>	<b>66,538</b>	<b>100.000%</b>	<b>7,100,662,956</b>	<b>7,100,662,956</b>	<b>100.000%</b>	<b>157,119</b>	<b>157,119</b>	<b>100%</b>

**Task B. Determine whether (and where) you want to collect additional inventory data.**

- |   | <b>Y</b> | <b>N</b> |
|---|----------|----------|
| 1. Do you know where the greatest damages may occur in your area?   | <u>X</u> |          |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | <u>X</u> |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | <u>X</u> |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | <u>X</u> |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | <u>X</u> |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   |          | <u>X</u> |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | <u>X</u> |

# City of Centerville Flood Hazard Map (with critical Facilities displayed)

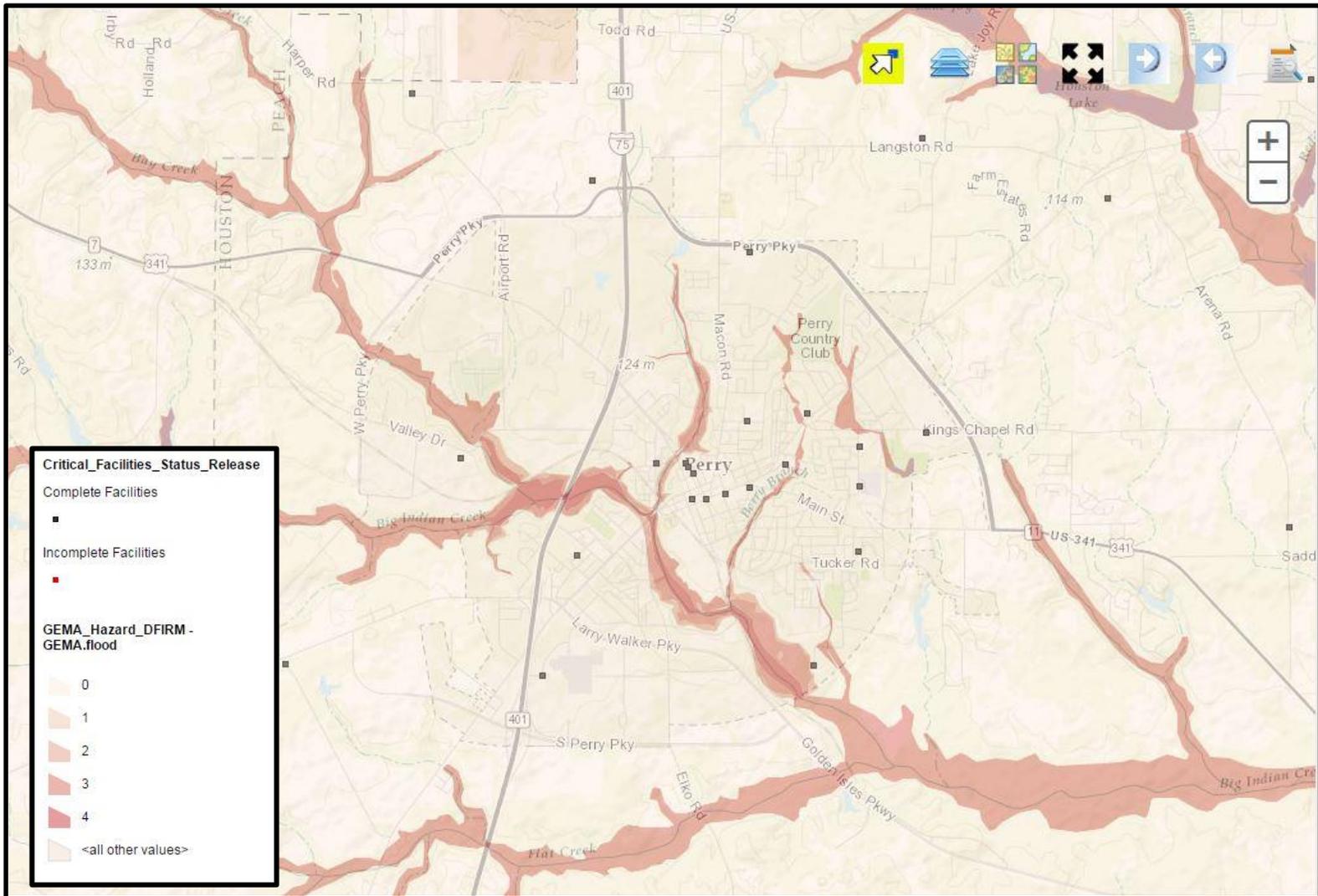


## Flood Hazard Scores

The flood hazard scores are derived from the FEMA Q3 "Zone" values. The Q3 layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination.

Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
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
2	AR	1% Federal flood protection system
	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

# City of Perry Flood Hazard Map (with critical Facilities displayed)

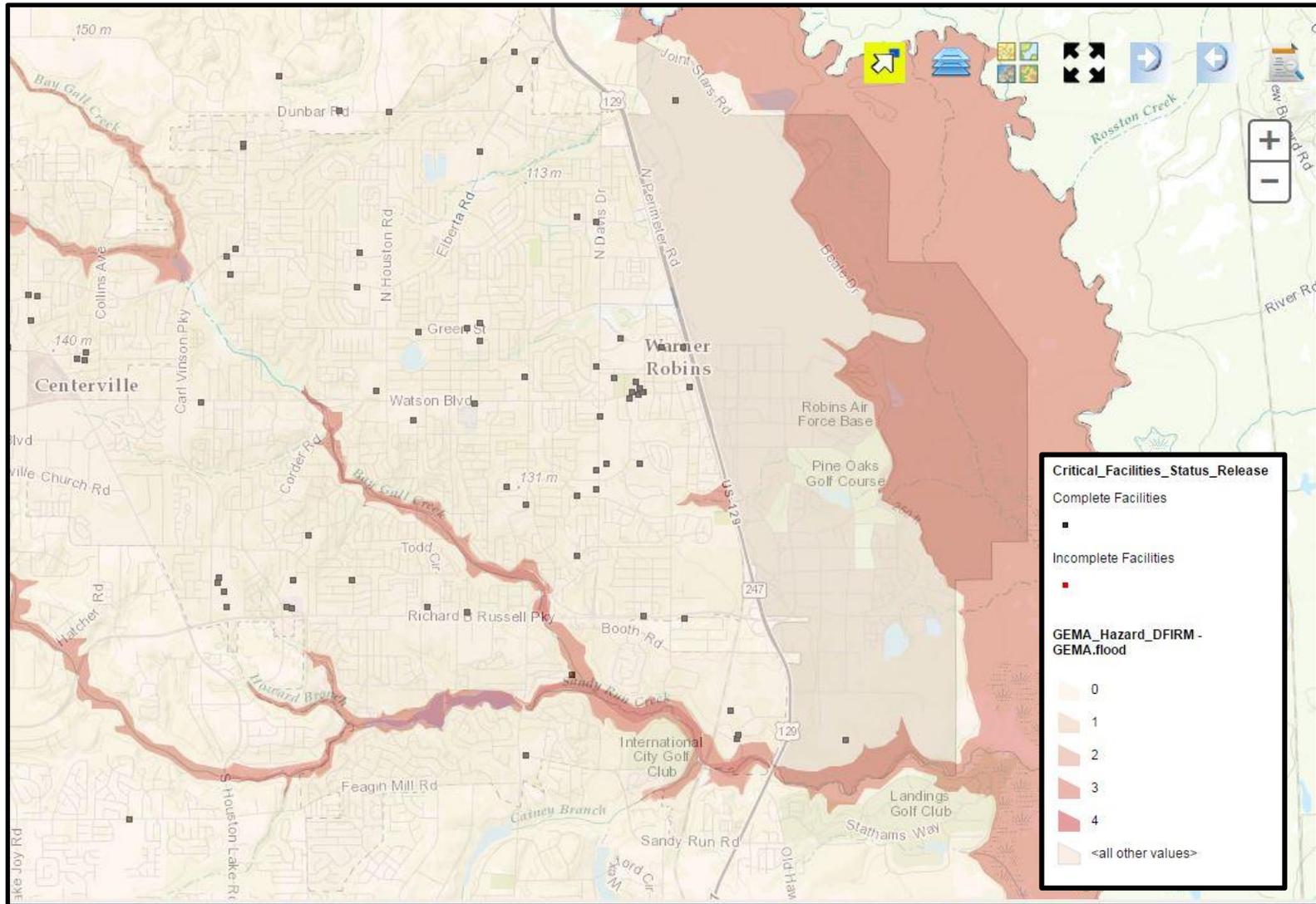


## Flood Hazard Scores

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Score	Original Value	Description
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	AH	1% Ponding has BFE
2	AO	1% Sheet Flow has depths
	AR	1% Federal flood protection system
	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

# City of Warner Robins Flood Hazard Map (with critical Facilities displayed)

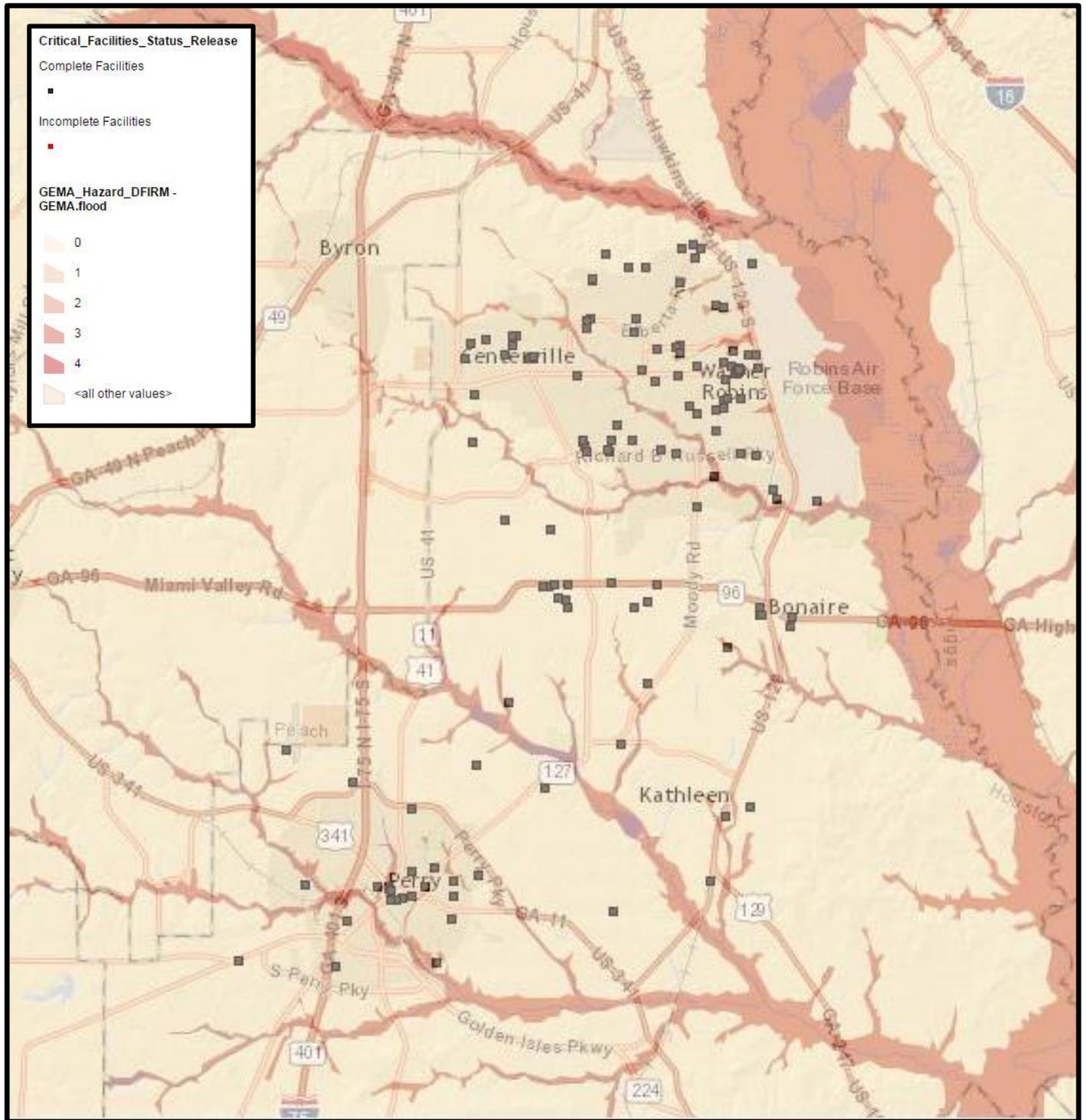


## Flood Hazard Scores

The flood hazard scores are derived from the FEMA Q3 "Zone" values. The Q3 layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination.

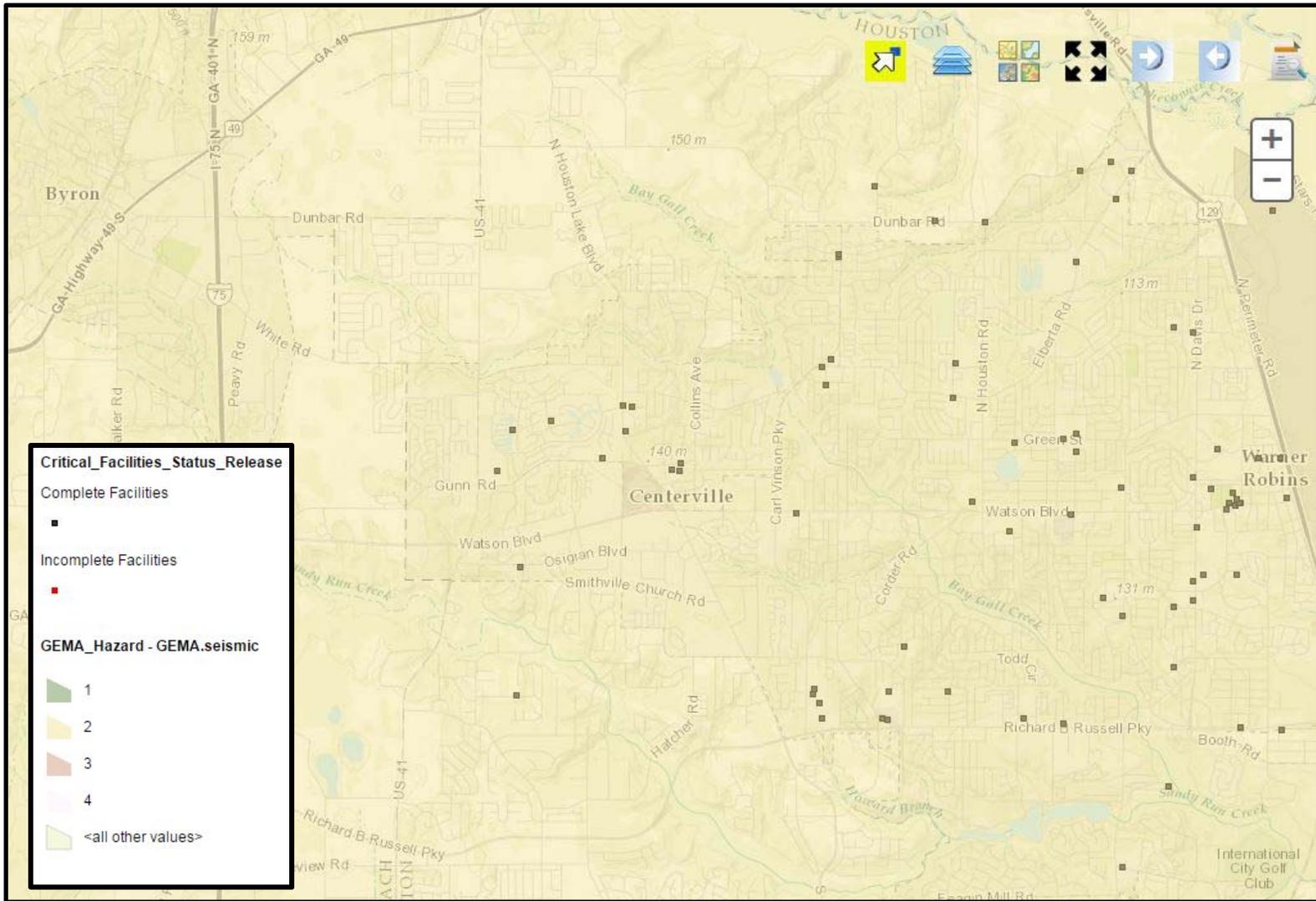
Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
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	A99	1% Federal flood protection system
	AE	1% has BFE
	AH	1% Ponding has BFE
	AO	1% Sheet Flow has depths
2	AR	1% Federal flood protection system
	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

# Houston County Flood Hazard Map (with critical Facilities displayed)



Score	Original Value	Description
4	Floodway	Floodway (within zone AE)
	V	1% with Velocity no Base Flood Elevation (BFE)
	VE	1% with Velocity BFE
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
2	X500	0.2% Annual Chance
1	ANI	Area not included in survey
	D	Undetermined but possible
0	UNDES	Undesignated
	X	Outside Flood Zones

# City of Centerville Earthquake Hazard Map (with critical Facilities displayed)

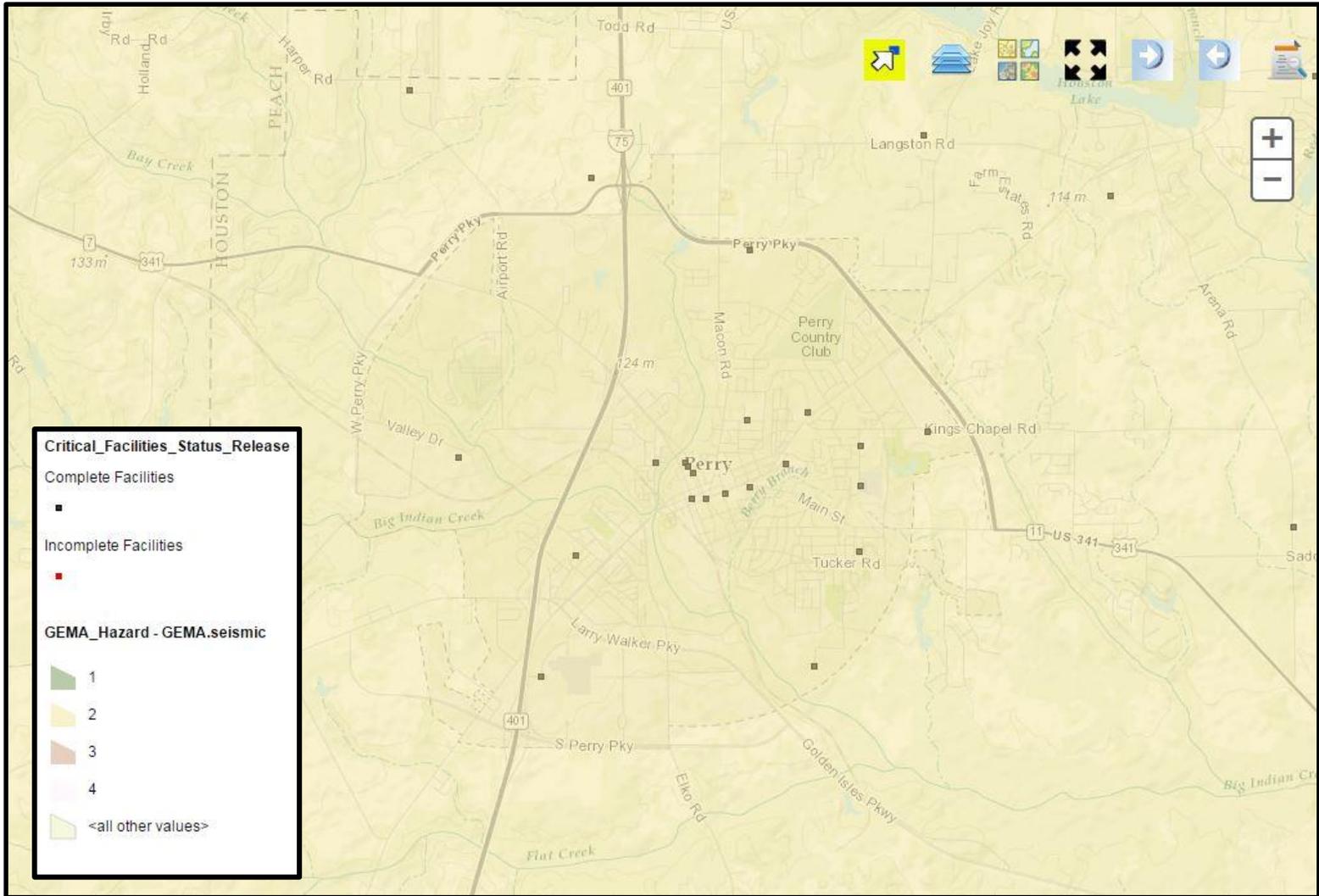


## Seismic Hazard Scores

The seismic hazard layer is based on the USGS Probabilistic Seismic Hazard Map, showing the percentage of gravity that the area has a 2 percent probability of exceedance in 50 years. The score classification reflects that used by the IRC Seismic Design Categories. The horizontal positional accuracy is unknown for this layer.

Score	Original Value	Description
4	D1	50 - 83% gravity
3	C	33 - 50% gravity
2	B	17 - 33% gravity
1	A	0 -17% gravity

# City of Perry Earthquake Hazard Map (with critical Facilities displayed)

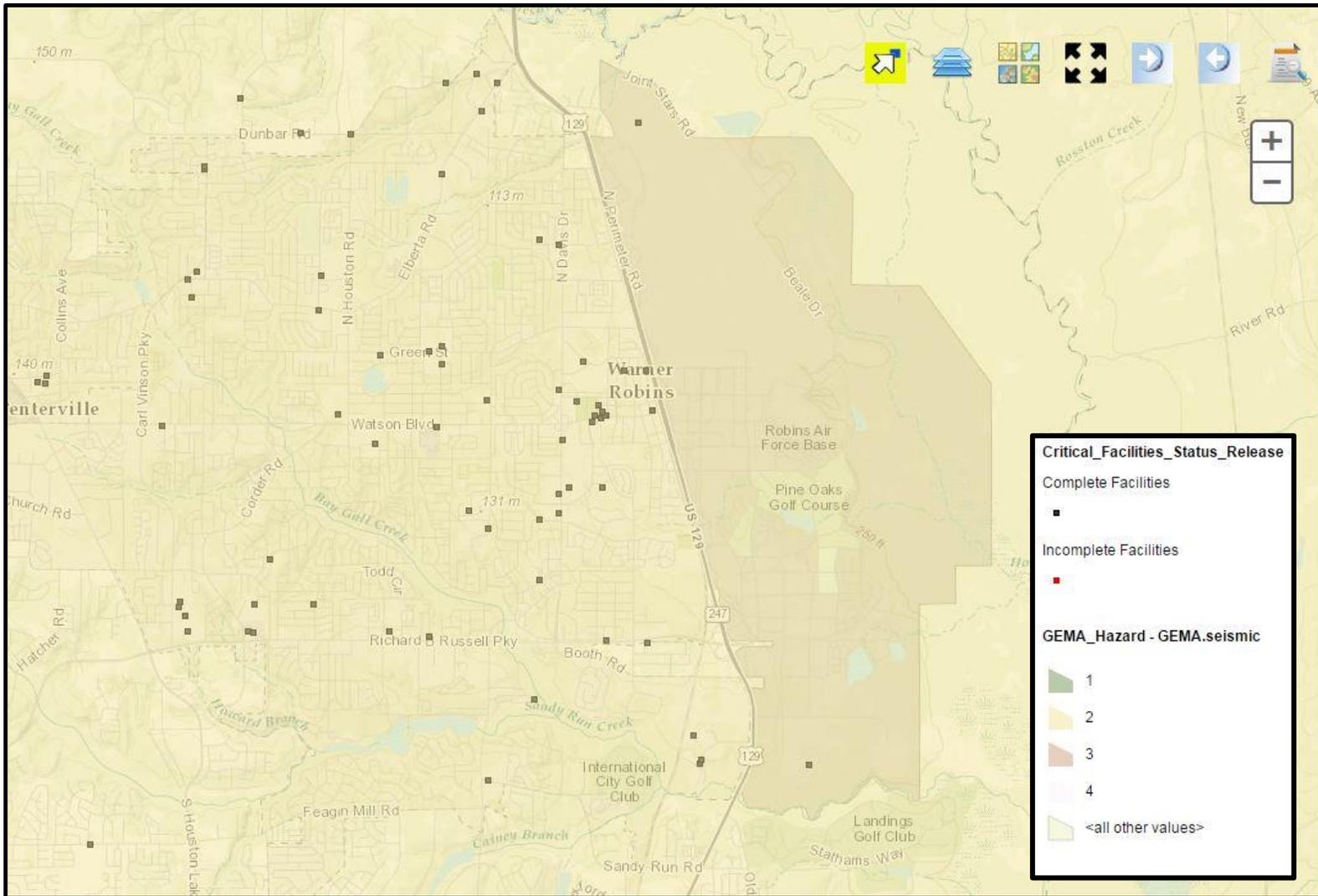


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The seismic hazard layer is based on the USGS Probabilistic Seismic Hazard Map, showing the percentage of gravity that the area has a 2 percent probability of exceedance in 50 years. The score classification reflects that used by the IRC Seismic Design Categories. The horizontal positional accuracy is unknown for this layer.

Score	Original Value	Description
4	D1	50 - 83% gravity
3	C	33 - 50% gravity
2	B	17 - 33% gravity
1	A	0 -17% gravity

# City of Warner Robins Earthquake Hazard Map (with critical Facilities displayed)

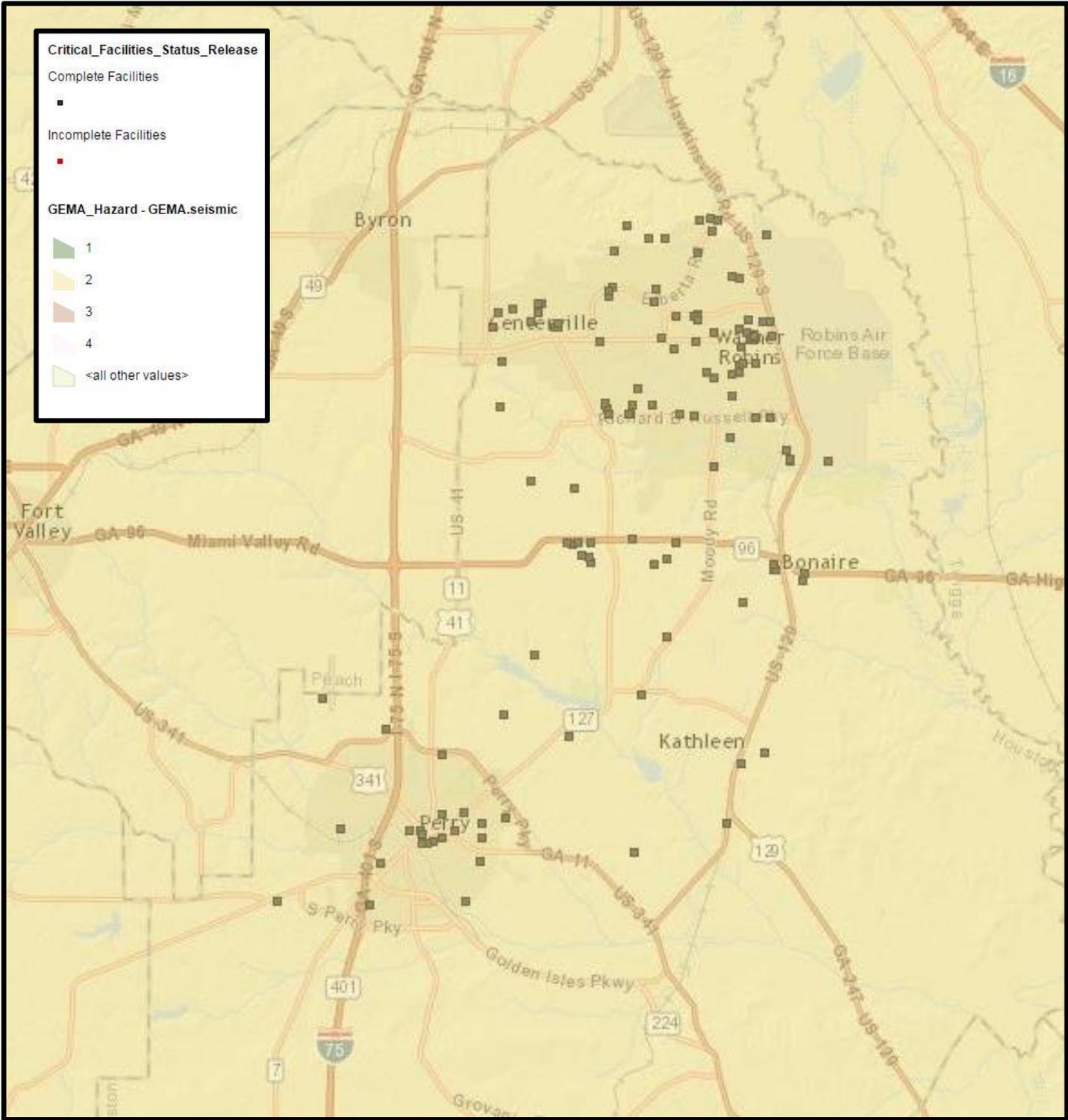


## Seismic Hazard Scores

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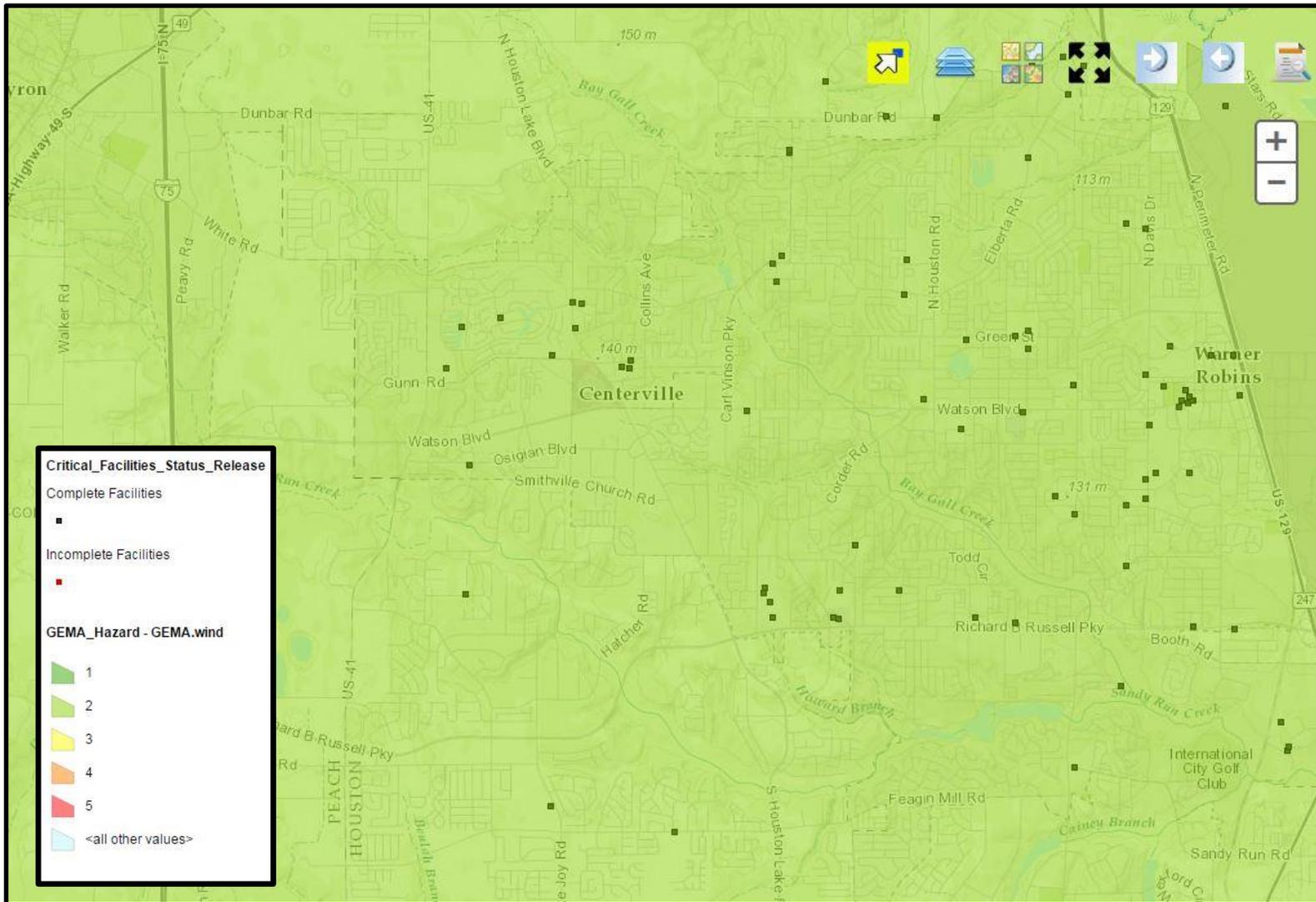
# Houston County Earthquake Hazard Map (with critical Facilities displayed)



Note: The entire planning area (Houston County and the Cities of Centerville, Perry, and Warner Robins) have the same earthquake hazard vulnerability.

Score	Original Value	Description
4	D1	50 - 83% gravity
3	C	33 - 50% gravity
2	B	17 - 33% gravity
1	A	0 -17% gravity

# City of Centerville Wind Hazard Map (with Critical Facilities displayed)

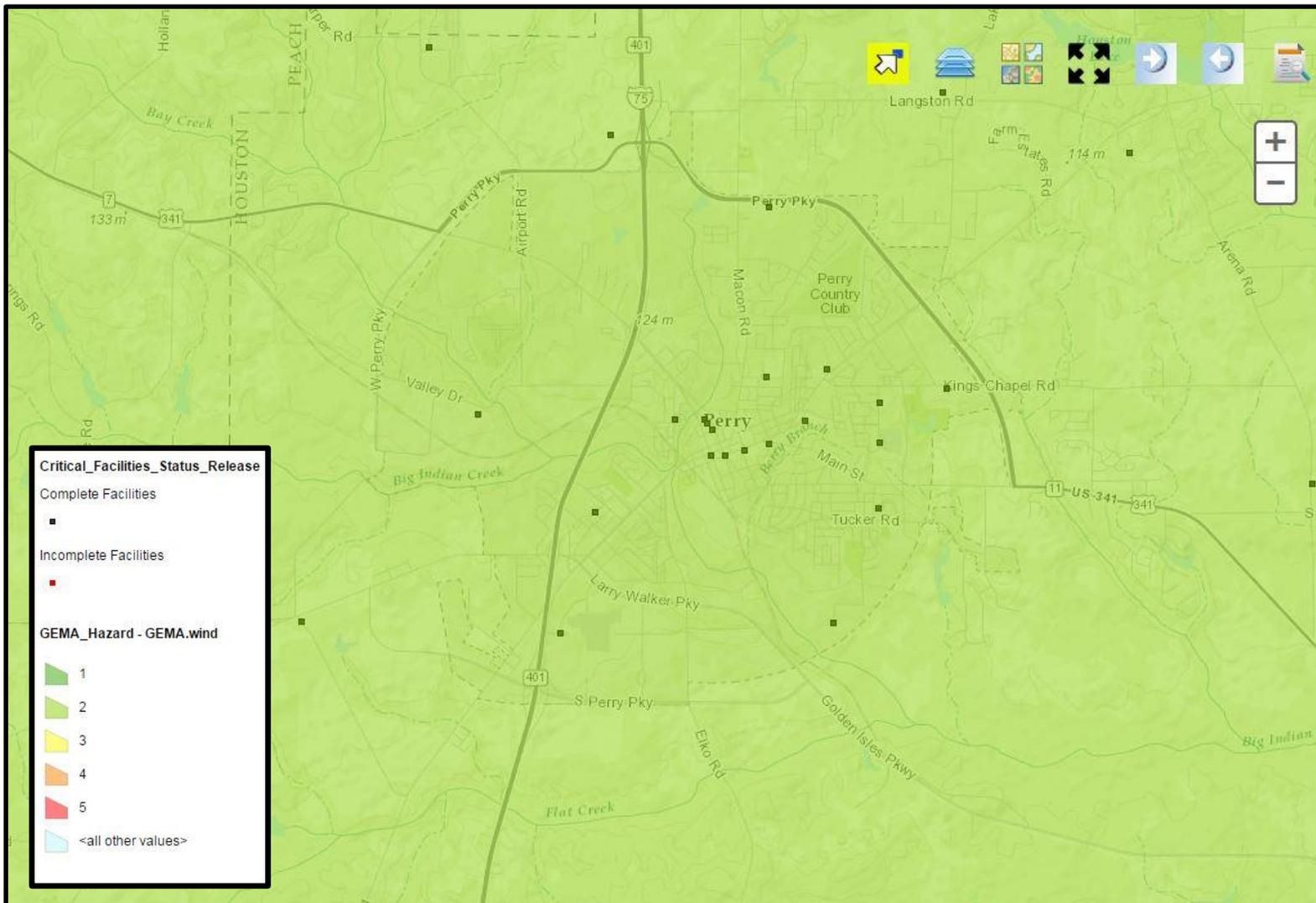


## Wind Hazard Scores

The Wind Hazard Scores are based on the 2000 International Building Code, figure 1609 contours showing 3 second gust wind speeds with a 50 year return interval. The Northwest portion of the state scored an additional point for the 250 mph community tornado shelter design zone according to FEMA publications.

Score	Original Value	Description
5	> 120 mph	3 second gust greater than 120 mph
4	110 to 119 mph	
3	100 to 109 mph	
2	90 to 99 mph (or ZONE IV)	This score is also given to an area with Zone IV of the "Design Wind Speed Map for Community Shelters," representing an area exposed to 250 mph winds. This area is the Northwestern corner of the state.
1	< 90 mph	

# City of Perry Wind Hazard Map (with Critical Facilities displayed)

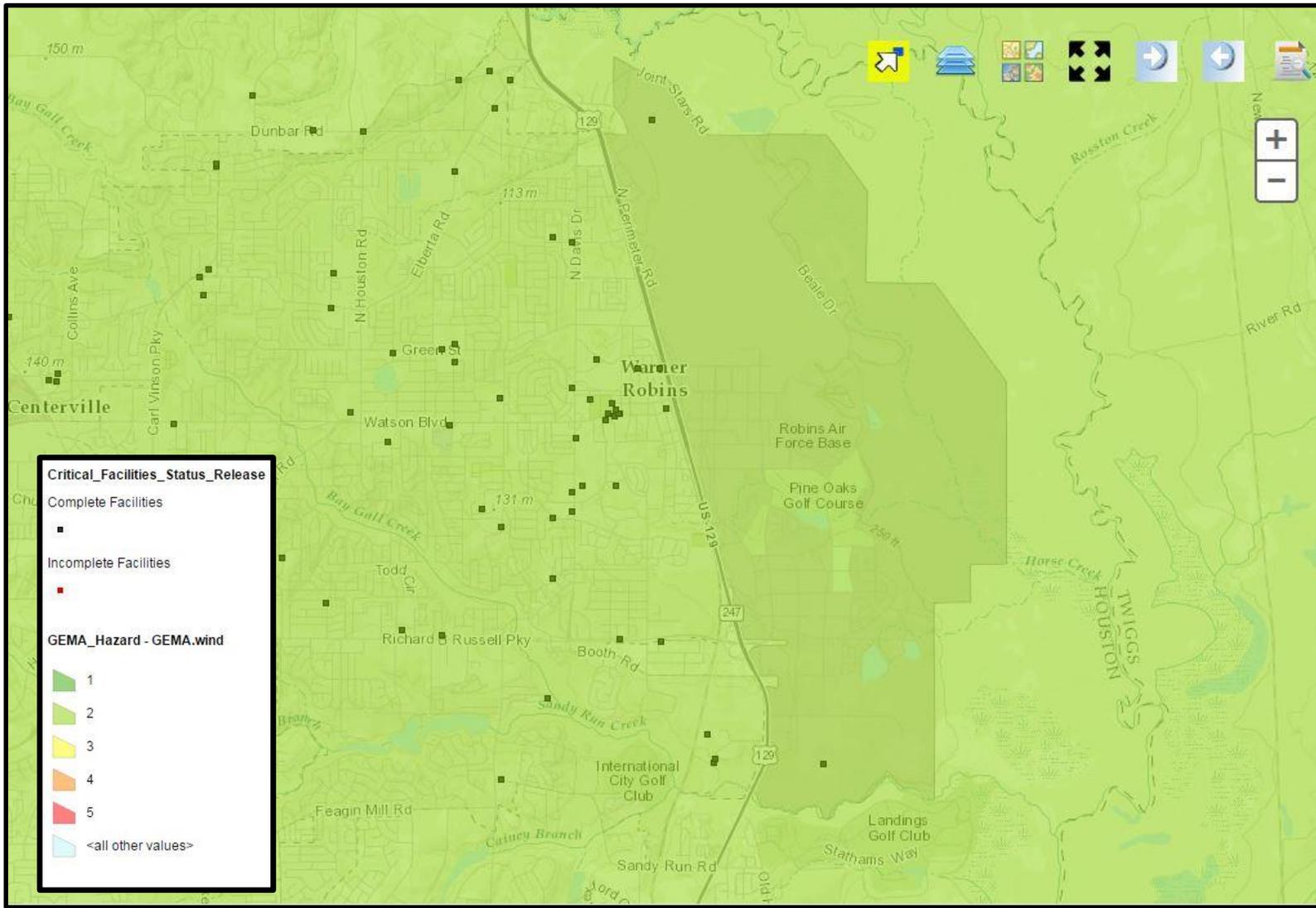


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Score	Original Value	Description
5	> 120 mph	3 second gust greater than 120 mph
4	110 to 119 mph	
3	100 to 109 mph	
2	90 to 99 mph (or ZONE IV)	This score is also given to an area with Zone IV of the "Design Wind Speed Map for Community Shelters," representing an area exposed to 250 mph winds. This area is the Northwestern corner of the state.
1	< 90 mph	

# City of Warner Robins Wind Hazard Map (with Critical Facilities displayed)

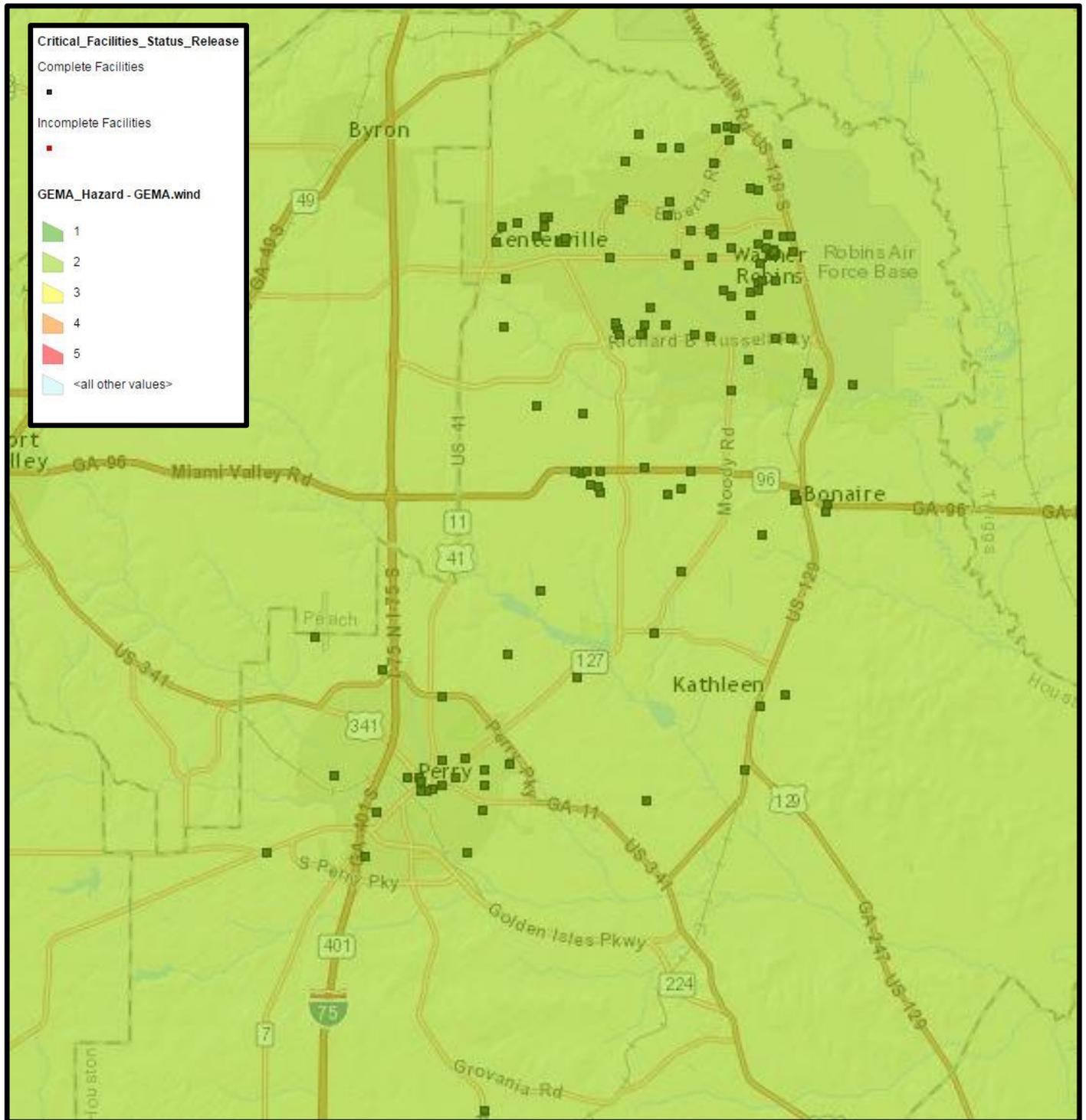


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1	< 90 mph	

# Houston County Wind Hazard Map (with Critical Facilities displayed)



Note: The entire planning area (Houston County and the Cities of Centerville, Perry, and Warner Robins) have the same wind hazard vulnerability.

Score	Original Value	Description
5	>120 mph	3 second gust greater than 120 mph
4	110 to 119 mph	
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1	<90 mph	

# City of Centerville Wildfire Hazard Map (with critical Facilities displayed)

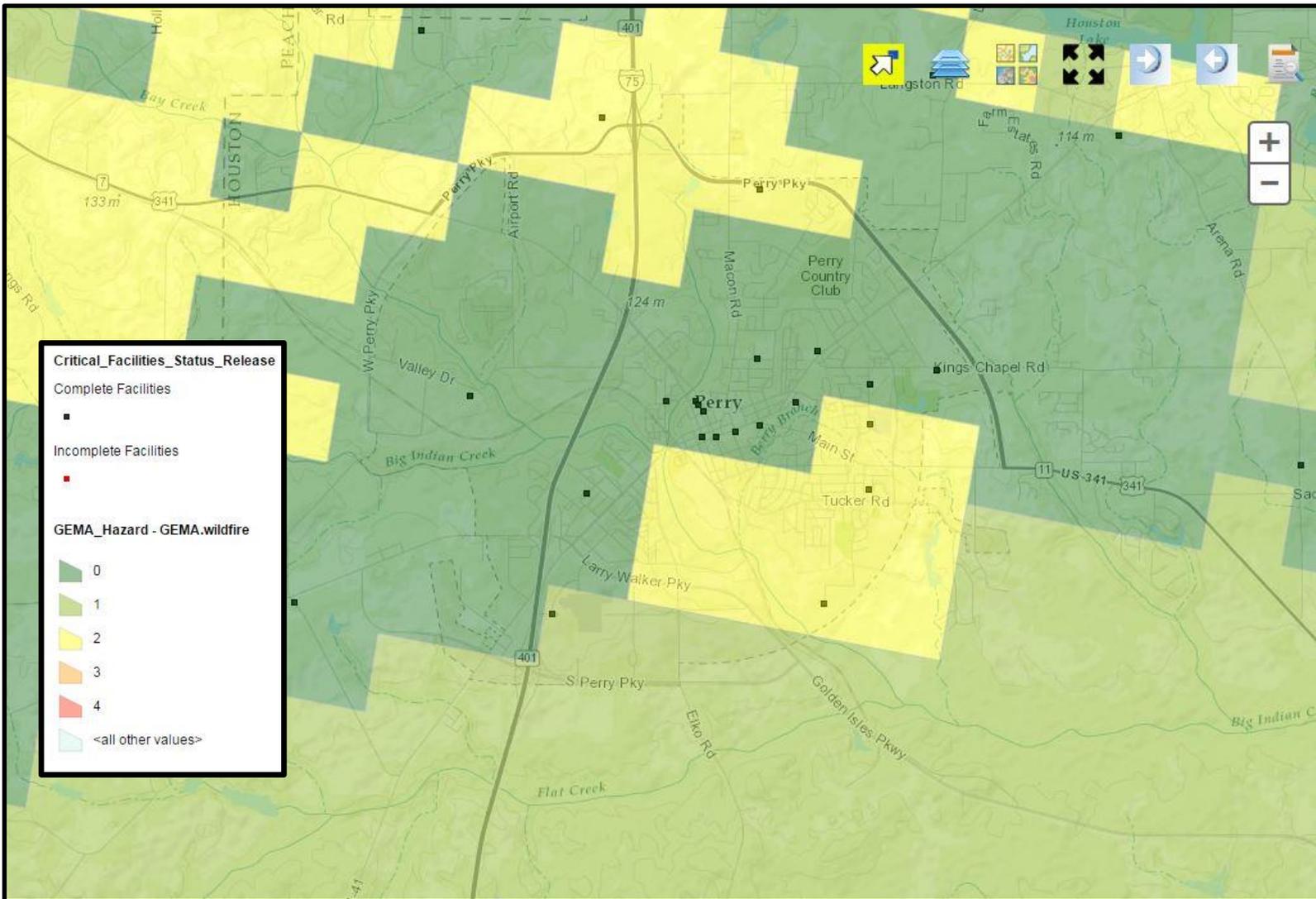


## Wildfire Risk Scores

The Wildfire Risk Layer was based on the USDA Forest Service, RMRS Fire Sciences Laboratory "Wildland Fire Risk to Flammable Structures, V 1.0" map. Although this data was not intended for use at a detail greater than state-wide analysis, it has been included as the best available data on wildfire risk. The scores are based on the risk value from the original layer. The horizontal positional accuracy is unknown for this layer.

Score	Original Value	Description
4	5	High
3	4	Moderate
2	3	Low
1	2	Very Low
0	1	No Houses
	7	Agriculture
	8	Water
	9	City

# City of Perry Wildfire Hazard Map (with critical Facilities displayed)

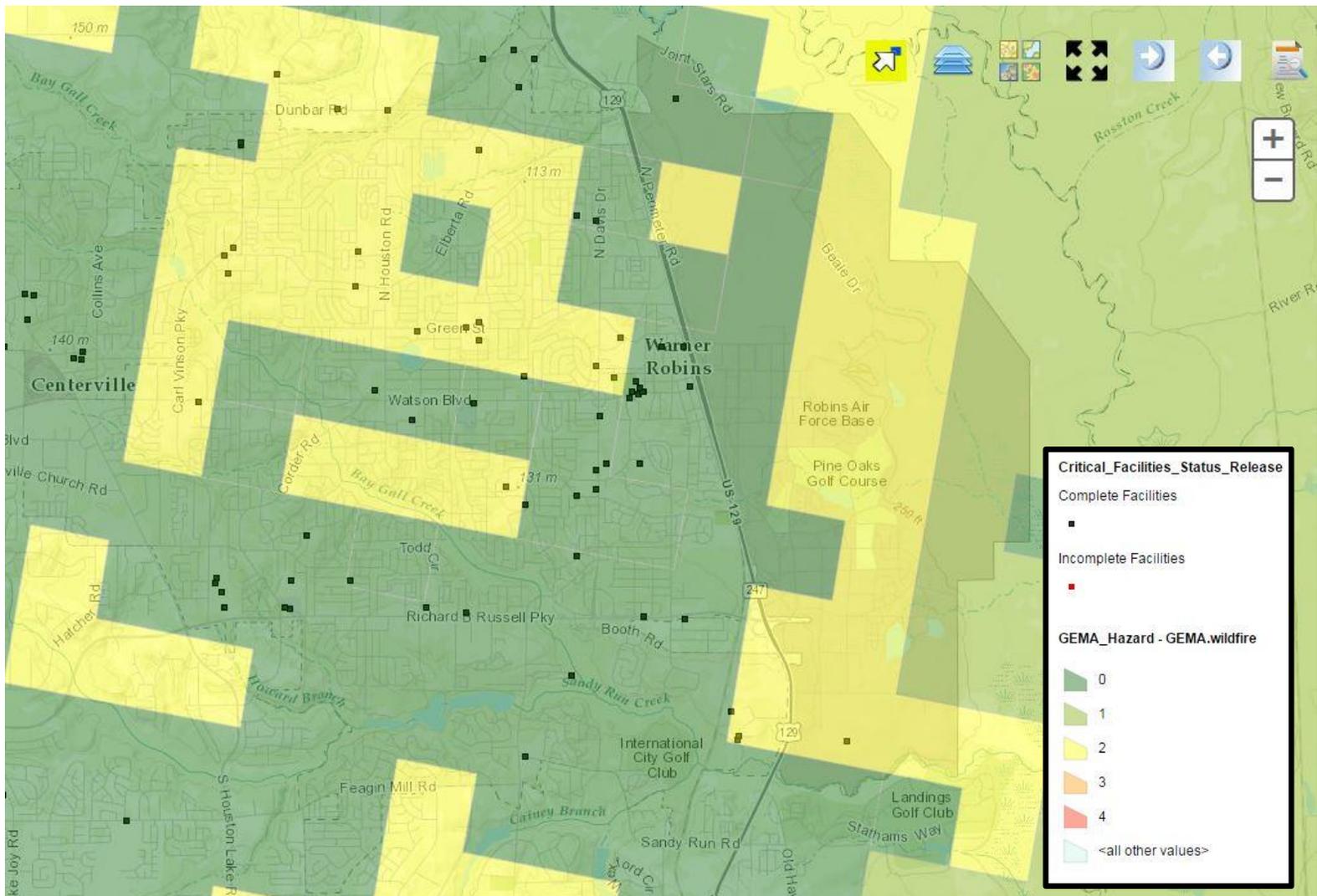


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Score	Original Value	Description
4	5	High
3	4	Moderate
2	3	Low
1	2	Very Low
0	1	No Houses
	7	Agriculture
	8	Water
	9	City

# City of Warner Robins Wildfire Hazard Map (with critical Facilities displayed)

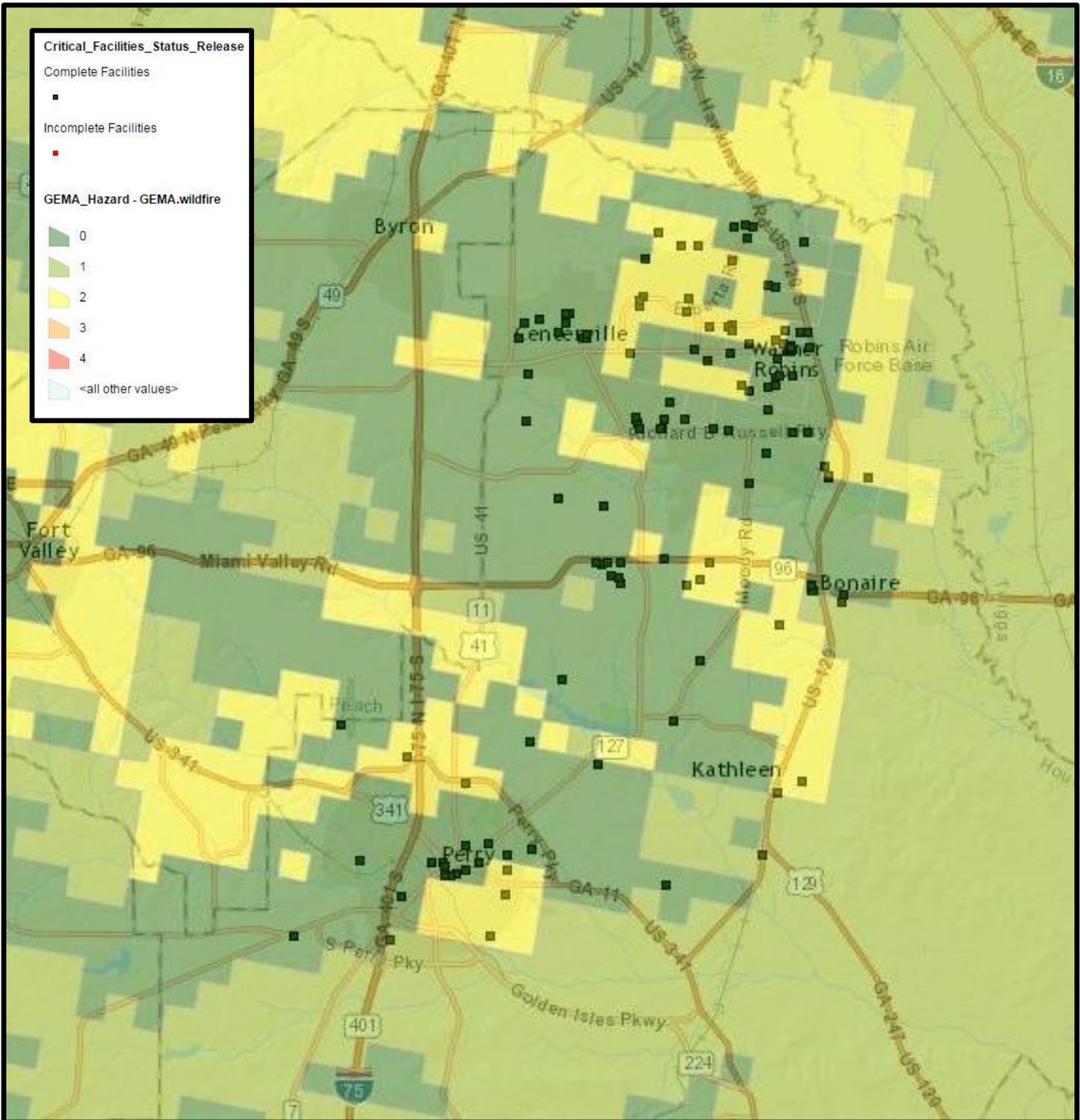


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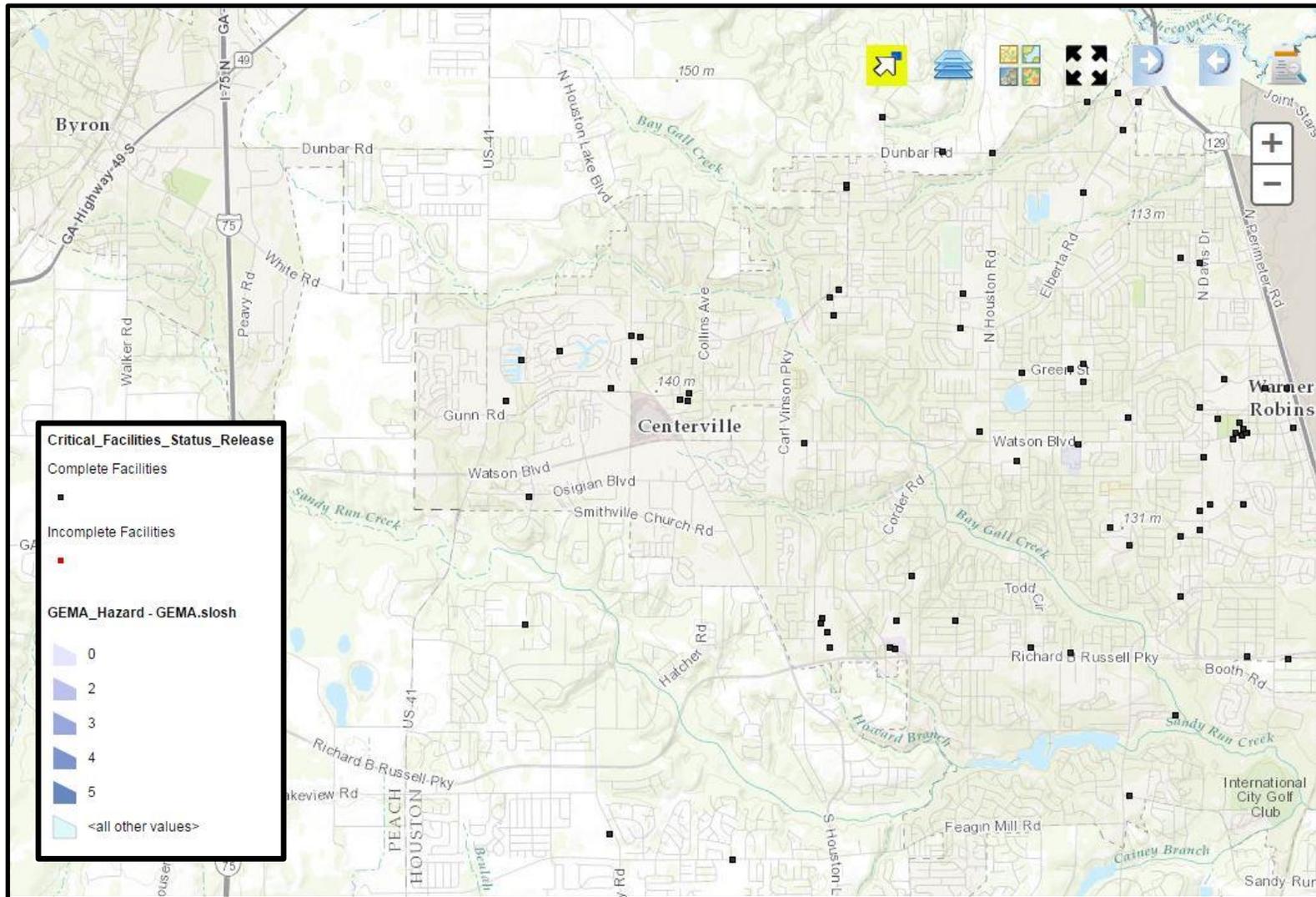
Score	Original Value	Description
4	5	High
3	4	Moderate
2	3	Low
1	2	Very Low
0	1	No Houses
	7	Agriculture
	8	Water
	9	City

# Houston County Wildfire Hazard Map (with critical Facilities displayed)



Score	Original Value	Description
4	5	High
3	4	Moderate
2	3	Low
1	2	Very Low
0	1	No Houses
	7	Agriculture
	8	Water
	9	City

# City of Centerville SLOSH Hazard Map (with critical Facilities displayed)

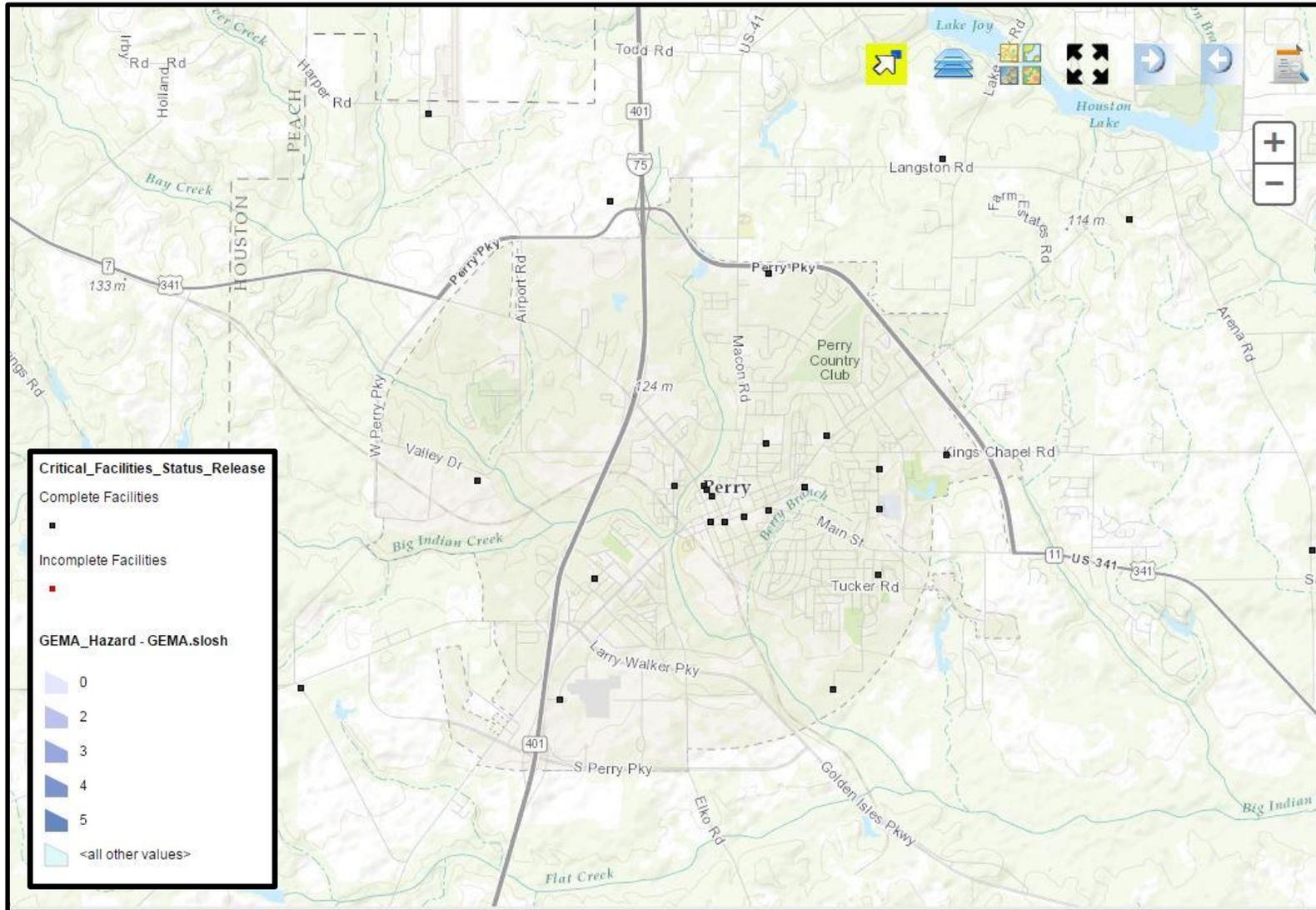


## SLOSH Hazard Scores

The Sea, Lake and Overland Surges from Hurricanes (SLOSH) is a computerized model to estimate storm surge heights and winds resulting from historical, hypothetical, or predicted hurricanes by taking into account pressure, size, forward speed, track, and wind speed from a storm. This layer represents the SLOSH results from a hypothetical event, showing SLOSH inundation areas for each category in the Saffir-Simpson Hurricane Scale. The areas inundated by a category 4 or category 5 storm surge have been combined to reflect their decreased probability of occurrence. The horizontal positional accuracy is unknown for this layer.

Score	Original Value	Description
5	1	Inundated By a Category 1 Hurricane
4	2	Inundated By a Category 2 Hurricane
3	3	Inundated By a Category 3 Hurricane
2	4	Inundated By a Category 4 Hurricane
	5	Inundated By a Category 5 Hurricane

# City of Perry SLOSH Hazard Map (with critical Facilities displayed)

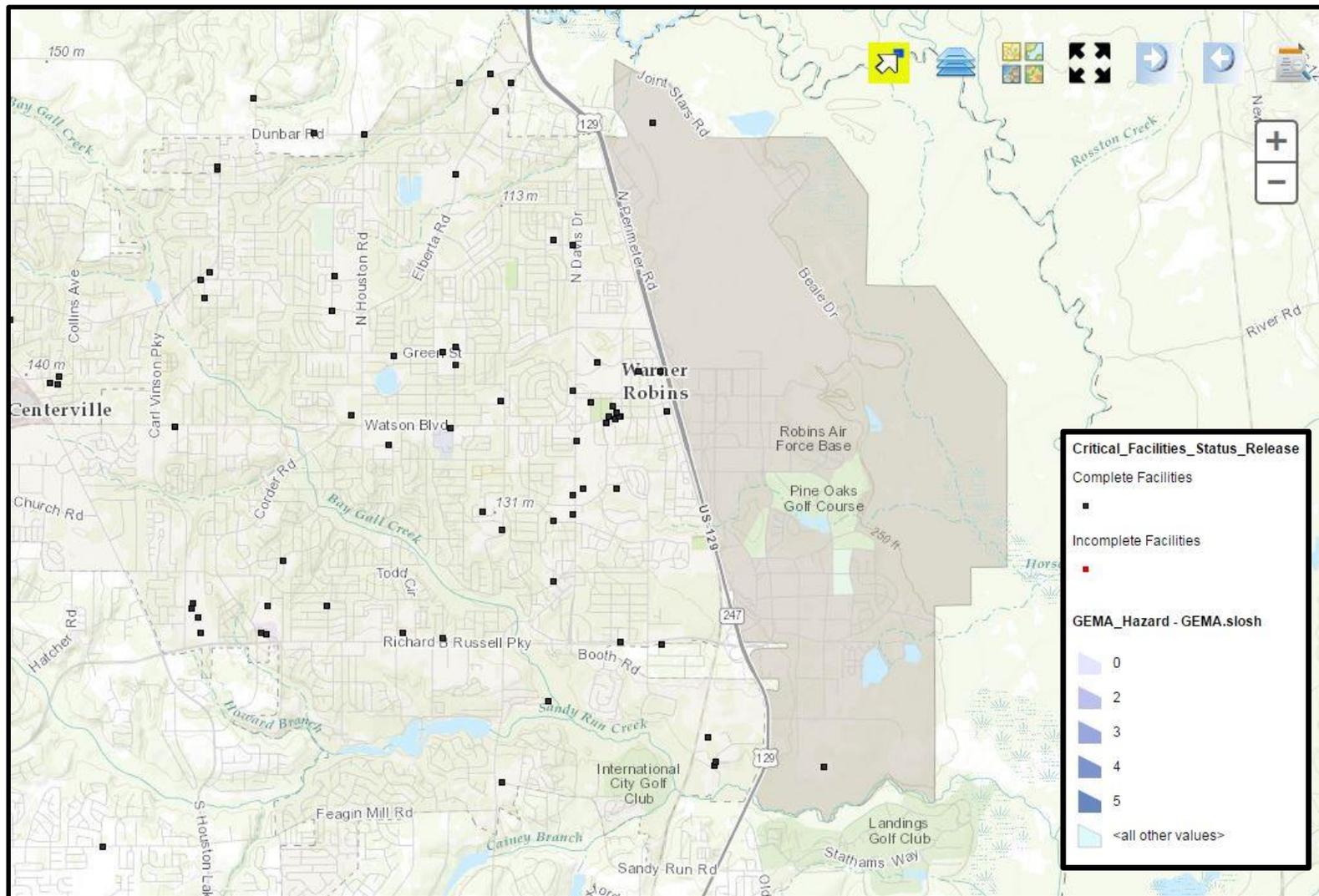


## SLOSH Hazard Scores

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Score	Original Value	Description
5	1	Inundated By a Category 1 Hurricane
4	2	Inundated By a Category 2 Hurricane
3	3	Inundated By a Category 3 Hurricane
2	4	Inundated By a Category 4 Hurricane
	5	Inundated By a Category 5 Hurricane

# City of Warner Robins SLOSH Hazard Map (with critical Facilities displayed)

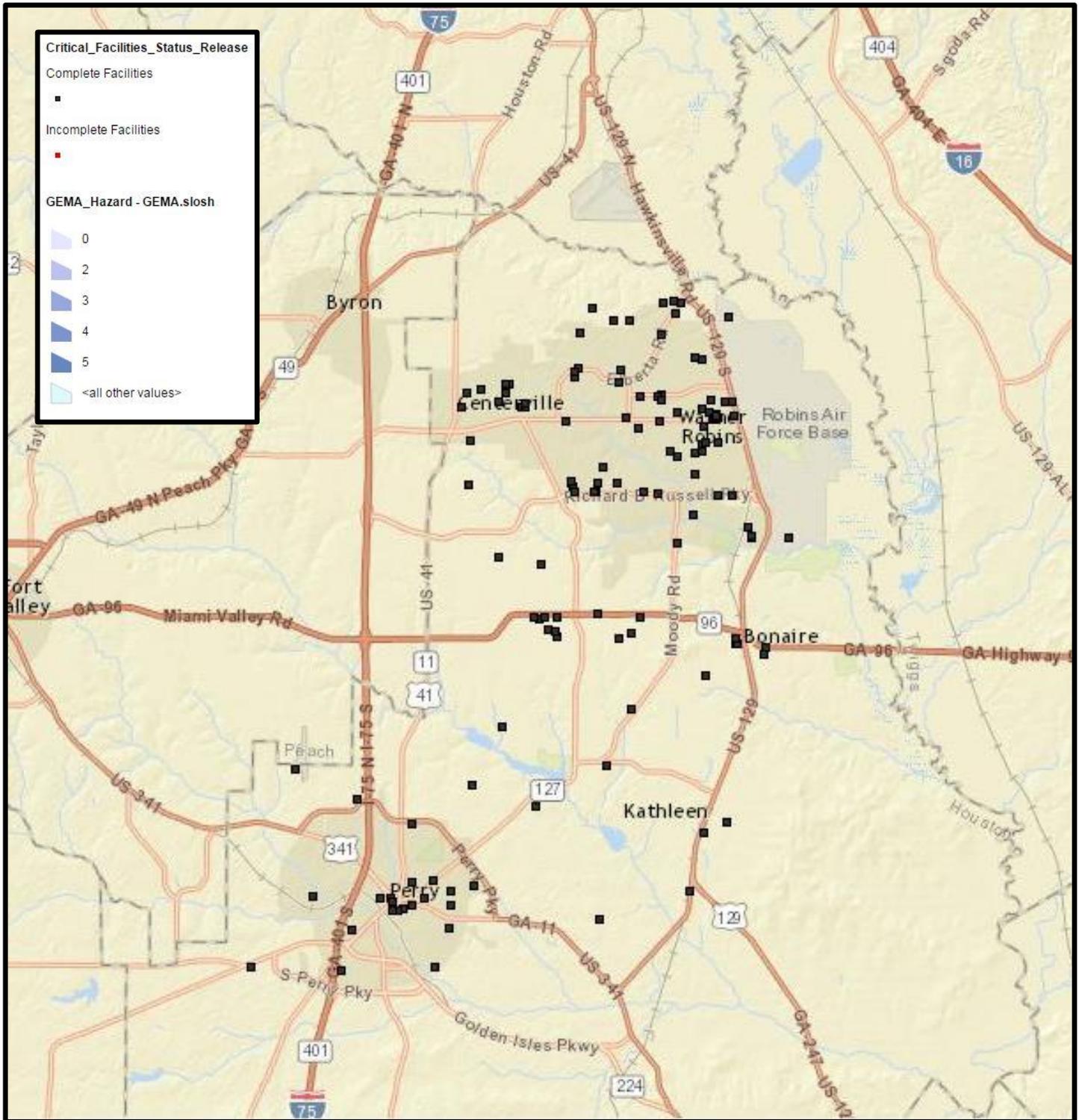


## SLOSH Hazard Scores

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Score	Original Value	Description
5	1	Inundated By a Category 1 Hurricane
4	2	Inundated By a Category 2 Hurricane
3	3	Inundated By a Category 3 Hurricane
2	4	Inundated By a Category 4 Hurricane
	5	Inundated By a Category 5 Hurricane

# Houston County Slosh Hazard Map (with critical Facilities displayed)



Score	Original Value	Description
5	1	Inundated By a Category 1 Hurricane
4	2	Inundated By a Category 2 Hurricane
3	3	Inundated By a Category 3 Hurricane
2	4	Inundated By a Category 4 Hurricane
	5	Inundated By a Category 5 Hurricane

**Facility Flood Hazard All Hazard Scores**

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Centerville city	Eagle Springs Elementary	0	16418586	2014	81584			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville-Houston County Library	0	2476700	2014	18000			0	Government, Library	Special Consideration
Centerville city	Centerville Elementary	0	10189441	2014	71103			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Thomson Middle School	0	20582669	2014	140592			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville City Hall	0	18085000	2014	18360			0	Government, Government Offices, City Hall	Important
Centerville city	Centerville Fire Department	0	2007300	2014	1769			0	Emergency Services, Government, Fire Fighters	Essential, Important
Centerville city	Centerville Public Safety Building	0	10500000	2014	10099			0	Emergency Services, Government, Police	Essential, Important
Centerville city	Centerville Water Treatment Plant #1	0	220000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Water Treatment Plant #2	0	510000	2014	4500			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Municipal Court	0	550500	2014	5250			0	Government, Court House, Government Offices	Important
Centerville city	Southern Heritage	0	610500	2014	9874			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Centerville city	Willow Creek Personal Home Care	0	651100	2014	9758			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 2	0	425608	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Bonaire Middle School Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire #2 Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Elmdale Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Shannonridge Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire Elementary School	0	9694828	2014	65122			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Houston County	Bonaire Middle School	0	19996776	2014	136593			0	Education, Government, K - 12	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 4	0	325800	2014	2400			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Pyles Road Lift Station	0	346500	2014	1044			0	Government, Water/Sewer	Lifeline, Important
Houston County	Houston County Fire Department Station 3	0	845350	2014	2140			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Mossy Creek Middle	0	21645533	2014	147852			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 5	0	360000	2014	2430			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Middle Georgia Con-Gen Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Frito-Lay, Inc.	0	17000000	2014	450000			0	NGO, Private	Economic Assets, Special Consideration
Houston County	Veterans High School	3	67125240	2014	290236			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	King Chapel Elementary School	0	9229238	2014	66559			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 8	0	925750	2014	1860			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Landfill	0	4000000	2014	9900			0	Government, Landfill	Essential, Important
Houston County	Houston County Fire Department Station 7	0	875000	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Sandy Run Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Victoria Gardens Nursing Home	0	320000	2014	3300			0	Medical, NGO, Clinics, Private	Important, Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 6	0	342177	2014	1960			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Fire Department Station 1	0	354100	2014	4870			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Houston County Courthouse	0	23971957	2014	32200			0	Government, Court House, Government Offices	Important, Historic Consideration
Perry city	Herman Ragin Center	0	6111916	2014	50703			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry High	0	32321127	2014	219974			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Middle School	0	19996776	2014	136590			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Matt Arthur Elementary School	0	12828739	2014	92376			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Morningside Elementary School	0	8900710	2014	62024			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry City Hall	0	1663680	2014	17910			0	Government, Government Offices, City Hall	Important
Perry city	Perry Public Safety Office	0	4265282	2014	25158			0	Emergency Services, Government, Police	Essential, Important
Perry city	Perry WPCP	0	12401605	2014	85244			0	Government, Water/Sewer	Lifeline, Important
Perry city	Perry-Houston County Airport	0	4700000	2014	10000			0	Government, Government Offices, Transportation	Transportation, Important, Economic Assets
Perry city	HCBOE Central Office	0	4141200	2014	29000			0	Government, Government Offices	Important
Perry city	HCBOE Transportation Shop	0	1641200	2014	36681			0	Government, Government Offices	Transportation, Important
Perry city	Tucker Elementary	0	9127344	2014	81498			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry City Hall	0	2552661	2014	25158			0	Government, Government Offices, City Hall	Important
Perry city	PPG Industries, Inc	0	41400000	2014	300000			0	NGO, Private	Economic Assets
Perry city	Georgia National Fairgrounds & Agricenter	0	28507900	2014	280310			0	Government, Government Offices	Economic Assets
Perry city	Guardian Center	0	29796730	2014	710000			0	NGO, Private	Important, Economic Assets
Perry city	Perry-Houston County Library	0	1440000	2014	11400			0	Government, Library	Special Consideration
Perry city	Perry Hospital	0	29517650	2014	81428			0	Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Perry city	Summerhill Senior Living Community	0	4690400	2014	34000			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Perry city	Church Home for the Aged	0	1574500	2014	4000			0	Medical, NGO, Clinics, Non-Profit	Vulnerable Population, Special Consideration
Perry city	Old Houston County Courthouse	0	5435319	2014	22250			0	Government, Court House, Government Offices	Important, Special Consideration
Perry city	Houston County Correctional Institution	0	67420000	2014	151400			0	Government, Jails	Special Consideration
Perry city	Langston Road Elementary	0	15000000	2014	81094			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Fire Department Station #2	0	1000000	2014	7017			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Gas Equipment	0	650000	2014	1000			0	Government, Transportation	Transportation, Important
Warner Robins city	Pearl Stephens Elementary School	0	10136962	2014	74697			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Bus Shop	0	391000	2014	4250			0	Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	HCBOE Warehouse	0	2585660	2014	28105			0	Government, Government Offices	Important
Warner Robins city	Houston County DFCS	0	4847739	2014	32500			0	Government, Government Offices	Important
Warner Robins city	Magistrate Court	0	2281668	2014	26800			0	Government, Government Offices	Important
Warner Robins city	Houston Healthcare Cancer Center	0	11000000	2014	30000			0	Government, Medical, Hospital	Important, Vulnerable Population
Warner Robins city	Warner Robins High	0	31834638	2014	299517			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Middle School	0	16101511	2014	112081			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Waste Water Plant	0	9441994	2014	4000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Water Well #2A	0	120000	2014	1800			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston County Annex	0	7603775	2014	38000			0	Government, Government Offices	Important
Warner Robins city	Houston County Sheriff/State Ct. Bldg.	0	2337052	2014	41000			0	Emergency Services, Government, Police, Sheriff	Essential, Important
Warner Robins city	Middle GA Tech Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important

**Facility Flood Hazard All Hazard Scores**

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Warner Robins city	Story Road Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Road Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Shamrock Apartments Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Coleman Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Burke Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Breckenridge Lift Station (Pine View Estates)	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Middle Georgia Technical College	0	18750222	2014	33480			0	Education, Government, VoTech	Important, Vulnerable Population
Warner Robins city	Sacred Heart School	0	12085000	2014	13400			0	Government, NGO, K - 12, Non-Profit	Special Consideration
Warner Robins city	Flint EMC Service Center	0	2091056	2014	23762			0	NGO, Private	Important
Warner Robins city	E-911 Center	0	2052404	2014	6000			0	Emergency Services, Government, EMS	Essential, Lifeline, Important
Warner Robins city	Houston County Career & Technology Center	0	3012580	2014	15866			0	Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County Crossroad Center	0	9642384	2014	67084			0	Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County High	0	40387344	2014	262829			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Maintenance Shop & Bus Shop	0	1391000	2014	10700			0	Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	Feagin Mill Middle School	0	19996776	2014	136590			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Robins Air Force Base	0	305000000	2014	10500000			0	Government, Government Offices	Essential, Important, Economic Assets, Special Consideration
Warner Robins city	Warner Robins Fire Department Station #1	0	1524700	2014	8393			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #3	0	200000	2014	2347			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #4	0	529900	2014	3666			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #5	0	187000	2014	2400			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Pol. Dept. Training Ctr.	0	175000	2014	1770			0	Emergency Services, Government, Police	Important
Warner Robins city	Warner Robins Public Works	0	1250000	2014	12420			0	Government, Government Offices	Important
Warner Robins city	McConnell-Talbert Stadium	0	3081700	2014	18272			0	Government, Government Offices	Special Consideration
Warner Robins city	Miller Elementary School	0	10023897	2014	69729			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Perdue Elementary	0	10023886	2014	70260			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Russell Elementary School	0	10401302	2014	72763			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Shirley Hills Elementary School	0	9425331	2014	63949			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Houston County Juvenile Court	0	1351300	2014	19350			0	Government, Court House, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #7	0	1003800	2014	7700			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #8	0	1003800	2014	7700			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Middle Georgia State College Warner Robins Campus	0	38000000	2014	44500			0	Education, Government, University	Important, Vulnerable Population, Special Consideration
Warner Robins city	Tabor Academy	0	13722163	2014	89337			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	R W Lindsey Elementary School	0	8417982	2014	65610			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Elementary School	0	10023886	2014	70260			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside HighSchool	0	27412378	2014	202902			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Middle School	0	14941291	2014	109653			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Parkwood Elementary School	0	9452486	2014	66710			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Maintenance Shop	0	2024272	2014	11163			0	Government, Government Offices	Important
Warner Robins city	Warner Robins Senior Citizen Center	0	228700	2014	10500			0	Government, Government Offices	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Recreation Department	0	1567100	2014	21270			0	Government, Government Offices	
Warner Robins city	Pump Station	0	1065532	2014	1500			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Pump Station	0	76000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Center	0	4550000	2014	25000			0	Education, Government, K - 12	Essential, Important, Special Consideration
Warner Robins city	BellSouth Central Office	0	4142512	2014	23537			0	NGO, Private	Economic Assets
Warner Robins city	Warner Robins Christian Academy	0	750000	2014	15000			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Nola Brantley Public Library	0	2.4E+12	2014	18000			0	Government, Library	Special Consideration
Warner Robins city	Evergreen Baptist Christian School	0	2029900	2014	26820			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Fellowship Christian Academy	0	2471500	2014	44125			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Rehab and Nusing Center	0	825000	2014	13200			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Warner Robins city	Elberta Health Care	0	3699285	2014	16626			0	Medical, NGO, Clinics, Private	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Green Street Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston Medical Center	0	197081400	2014	800000			0	Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Warner Robins city	Pavilion Health Facilities	0	20300700	2014	51200			0	Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Peachbelt Health Care	0	3238844	2014	24261			0	Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Dunbar Road Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Westside Elementary School	0	9095060	2014	69962			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Georgia Military College	0	1694800	2014	26490			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Law Enforcement Center	0	9780000	2014	40284			0	Emergency Services, Government, Police, Jails	Essential, Important
Warner Robins city	Warner Robins City Hall	0	4100000	2014	235000			0	Government, Government Offices, City Hall	Essential, Important
Warner Robins city	Warner Robins Civic Center	0	12000000	2014	22000			0	Government, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #6	0	619600	2014	7800			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Training Ctr.	0	86300	2014	1800			0	Emergency Services, Government, Fire Fighters	Important

## Facility Seismic Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Centerville city	Eagle Springs Elementary	2	16418586	2014	81584			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville-Houston County Library	2	2476700	2014	18000			0	Government, Library	Special Consideration
Centerville city	Centerville Elementary	2	10189441	2014	71103			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Thomson Middle School	2	20582669	2014	140592			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville City Hall	2	18085000	2014	18360			0	Government, Government Offices, City Hall	Important
Centerville city	Centerville Fire Department	2	2007300	2014	1769			0	Emergency Services, Government, Fire Fighters	Essential, Important
Centerville city	Centerville Public Safety Building	2	10500000	2014	10099			0	Emergency Services, Government, Police	Essential, Important
Centerville city	Centerville Water Treatment Plant #1	2	220000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Water Treatment Plant #2	2	510000	2014	4500			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Municipal Court	2	550500	2014	5250			0	Government, Court House, Government Offices	Important
Centerville city	Southern Heritage	2	610500	2014	9874			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Centerville city	Willow Creek Personal Home Care	2	651100	2014	9758			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 2	2	425608	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Bonaire Middle School Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire #2 Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Elmdale Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Shannonridge Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire Elementary School	2	9694828	2014	65122			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Houston County	Bonaire Middle School	2	19996776	2014	136593			0	Education, Government, K - 12	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 4	2	325800	2014	2400			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Pyles Road Lift Station	2	346500	2014	1044			0	Government, Water/Sewer	Lifeline, Important
Houston County	Houston County Fire Department Station 3	2	845350	2014	2140			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Mossy Creek Middle	2	21645533	2014	147852			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 5	2	360000	2014	2430			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Middle Georgia Con-Gen Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Frito-Lay, Inc.	2	17000000	2014	450000			0	NGO, Private	Economic Assets, Special Consideration
Houston County	Veterans High School	2	67125240	2014	290236			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	King Chapel Elementary School	2	9229238	2014	66559			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 8	2	925750	2014	1860			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Landfill	2	4000000	2014	9900			0	Government, Landfill	Essential, Important
Houston County	Houston County Fire Department Station 7	2	875000	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Sandy Run Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Victoria Gardens Nursing Home	2	320000	2014	3300			0	Medical, NGO, Clinics, Private	Important, Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 6	2	342177	2014	1960			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Fire Department Station 1	2	354100	2014	4870			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Houston County Courthouse	2	23971957	2014	32200			0	Government, Court House, Government Offices	Important, Historic Consideration
Perry city	Herman Ragin Center	2	6111916	2014	50703			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry High	2	32321127	2014	219974			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Middle School	2	19996776	2014	136590			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Matt Arthur Elementary School	2	12828739	2014	92376			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Morningside Elementary School	2	8900710	2014	62024			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry City Hall	2	1663680	2014	17910			0	Government, Government Offices, City Hall	Important
Perry city	Perry Public Safety Office	2	4265282	2014	25158			0	Emergency Services, Government, Police	Essential, Important
Perry city	Perry WPCP	2	12401605	2014	85244			0	Government, Water/Sewer	Lifeline, Important
Perry city	Perry-Houston County Airport	2	4700000	2014	10000			0	Government, Government Offices, Transportation	Transportation, Important, Economic Assets
Perry city	HCBOE Central Office	2	4141200	2014	29000			0	Government, Government Offices	Important
Perry city	HCBOE Transportation Shop	2	1641200	2014	36681			0	Government, Government Offices	Transportation, Important
Perry city	Tucker Elementary	2	9127344	2014	81498			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry City Hall	2	2552661	2014	25158			0	Government, Government Offices, City Hall	Important
Perry city	PPG Industries, Inc	2	41400000	2014	300000			0	NGO, Private	Economic Assets
Perry city	Georgia National Fairgrounds & Agricenter	2	28507900	2014	280310			0	Government, Government Offices	Economic Assets
Perry city	Guardian Center	2	29796730	2014	710000			0	NGO, Private	Important, Economic Assets
Perry city	Perry-Houston County Library	2	1440000	2014	11400			0	Government, Library	Special Consideration
Perry city	Perry Hospital	2	29517650	2014	81428			0	Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Perry city	Summerhill Senior Living Community	2	4690400	2014	34000			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Perry city	Church Home for the Aged	2	1574500	2014	4000			0	Medical, NGO, Clinics, Non-Profit	Vulnerable Population, Special Consideration
Perry city	Old Houston County Courthouse	2	5435319	2014	22250			0	Government, Court House, Government Offices	Important, Special Consideration
Perry city	Houston County Correctional Institution	2	67420000	2014	151400			0	Government, Jails	Special Consideration
Perry city	Langston Road Elementary	2	15000000	2014	81094			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Fire Department Station #2	2	1000000	2014	7017			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Gas Equipment	2	650000	2014	1000			0	Government, Transportation	Transportation, Important
Warner Robins city	Pearl Stephens Elementary School	2	10136962	2014	74697			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Bus Shop	2	391000	2014	4250			0	Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	HCBOE Warehouse	2	2585660	2014	28105			0	Government, Government Offices	Important
Warner Robins city	Houston County DFCS	2	4847739	2014	32500			0	Government, Government Offices	Important
Warner Robins city	Magistrate Court	2	2281668	2014	26800			0	Government, Government Offices	Important
Warner Robins city	Houston Healthcare Cancer Center	2	11000000	2014	30000			0	Government, Medical, Hospital	Important, Vulnerable Population
Warner Robins city	Warner Robins High	2	31834638	2014	299517			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Middle School	2	16101511	2014	112081			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Waste Water Plant	2	9441994	2014	4000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Water Well #2A	2	120000	2014	1800			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston County Annex	2	7603775	2014	38000			0	Government, Government Offices	Important
Warner Robins city	Houston County Sheriff/State Ct. Bldg.	2	2337052	2014	41000			0	Emergency Services, Government, Police, Sheriff	Essential, Important
Warner Robins city	Middle GA Tech Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Story Road Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Road Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important

## Facility Seismic Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Warner Robins city	Shamrock Apartments Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Coleman Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Burke Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Breckenridge Lift Station (Pine View Estates)	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Middle Georgia Technical College	2	18750222	2014	33480			0	Education, Government, VoTech	Important, Vulnerable Population
Warner Robins city	Sacred Heart School	2	12085000	2014	13400			0	Government, NGO, K - 12, Non-Profit	Special Consideration
Warner Robins city	Flint EMC Service Center	2	2091056	2014	23762			0	NGO, Private	Important
Warner Robins city	E-911 Center	2	2052404	2014	6000			0	Emergency Services, Government, EMS	Essential, Lifeline, Important
Warner Robins city	Houston County Career & Technology Center	2	3012580	2014	15866			0	Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County Crossroad Center	2	9642384	2014	67084			0	Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County High	2	40387344	2014	262829			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Maintenance Shop & Bus Shop	2	1391000	2014	10700			0	Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	Feagin Mill Middle School	2	19996776	2014	136590			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Robins Air Force Base	2	3.05E+09	2014	10500000			0	Government, Government Offices	Essential, Important, Economic Assets, Special Consideration
Warner Robins city	Warner Robins Fire Department Station #1	2	1524700	2014	8393			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #3	2	200000	2014	2347			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #4	2	529900	2014	3666			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #5	2	187000	2014	2400			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Pol. Dept. Training Ctr.	2	175000	2014	1770			0	Emergency Services, Government, Police	Important
Warner Robins city	Warner Robins Public Works	2	1250000	2014	12420			0	Government, Government Offices	Important
Warner Robins city	McConnell-Talbert Stadium	2	3081700	2014	18272			0	Government, Government Offices	Special Consideration
Warner Robins city	Miller Elementary School	2	10023897	2014	69729			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Perdue Elementary	2	10023886	2014	70260			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Russell Elementary School	2	10401302	2014	72763			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Shirley Hills Elementary School	2	9425331	2014	63949			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Houston County Juvenile Court	2	1351300	2014	19350			0	Government, Court House, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #7	2	1003800	2014	7700			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #8	2	1003800	2014	7700			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Middle Georgia State College Warner Robins Campus	2	38000000	2014	44500			0	Education, Government, University	Important, Vulnerable Population, Special Consideration
Warner Robins city	Tabor Academy	2	13722163	2014	89337			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	R W Lindsey Elementary School	2	8417982	2014	65610			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Elementary School	2	10023886	2014	70260			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside HighSchool	2	27412378	2014	202902			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Middle School	2	14941291	2014	109653			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Parkwood Elementary School	2	9452486	2014	66710			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Maintenance Shop	2	2024272	2014	11163			0	Government, Government Offices	Important
Warner Robins city	Warner Robins Senior Citizen Center	2	228700	2014	10500			0	Government, Government Offices	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Recreation Department	2	1567100	2014	21270			0	Government, Government Offices	
Warner Robins city	Pump Station	2	1065532	2014	1500			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Pump Station	2	76000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Center	2	4550000	2014	25000			0	Education, Government, K - 12	Essential, Important, Special Consideration
Warner Robins city	BellSouth Central Office	2	4142512	2014	23537			0	NGO, Private	Economic Assets
Warner Robins city	Warner Robins Christian Academy	2	750000	2014	15000			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Nola Brantley Public Library	2	2.4E+12	2014	18000			0	Government, Library	Special Consideration
Warner Robins city	Evergreen Baptist Christian School	2	2029900	2014	26820			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Fellowship Christian Academy	2	2471500	2014	44125			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Rehab and Nusing Center	2	825000	2014	13200			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Warner Robins city	Elberta Health Care	2	3699285	2014	16626			0	Medical, NGO, Clinics, Private	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Green Street Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston Medical Center	2	197081400	2014	800000			0	Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Warner Robins city	Pavilion Health Facilities	2	20300700	2014	51200			0	Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Peachbelt Health Care	2	3238844	2014	24261			0	Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Dunbar Road Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Westside Elementary School	2	9095060	2014	69962			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Georgia Military College	2	1694800	2014	26490			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Law Enforcement Center	2	9780000	2014	40284			0	Emergency Services, Government, Police, Jails	Essential, Important
Warner Robins city	Warner Robins City Hall	2	4100000	2014	235000			0	Government, Government Offices, City Hall	Essential, Important
Warner Robins city	Warner Robins Civic Center	2	12000000	2014	22000			0	Government, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #6	2	619600	2014	7800			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Training Ctr.	2	86300	2014	1800			0	Emergency Services, Government, Fire Fighters	Important

## Facility Wildfire Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Centerville city	Eagle Springs Elementary	0	16418586	2014	81584			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville-Houston County Library	0	2476700	2014	18000			0	Government, Library	Special Consideration
Centerville city	Centerville Elementary	0	10189441	2014	71103			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Thomson Middle School	0	20582669	2014	140592			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville City Hall	0	18085000	2014	18360			0	Government, Government Offices, City Hall	Important
Centerville city	Centerville Fire Department	0	2007300	2014	1769			0	Emergency Services, Government, Fire Fighters	Essential, Important
Centerville city	Centerville Public Safety Building	0	10500000	2014	10099			0	Emergency Services, Government, Police	Essential, Important
Centerville city	Centerville Water Treatment Plant #1	2	220000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Water Treatment Plant #2	0	510000	2014	4500			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Municipal Court	0	550500	2014	5250			0	Government, Court House, Government Offices	Important
Centerville city	Southern Heritage	2	610500	2014	9874			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Centerville city	Willow Creek Personal Home Care	0	651100	2014	9758			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 2	0	425608	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Bonaire Middle School Lift Station	1	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire #2 Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Elmdale Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Shannonridge Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire Elementary School	0	9694828	2014	65122			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Houston County	Bonaire Middle School	0	19996776	2014	136593			0	Education, Government, K - 12	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 4	0	325800	2014	2400			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Pyles Road Lift Station	0	346500	2014	1044			0	Government, Water/Sewer	Lifeline, Important
Houston County	Houston County Fire Department Station 3	1	845350	2014	2140			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Mossy Creek Middle	0	21645533	2014	147852			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 5	0	360000	2014	2430			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Middle Georgia Con-Gen Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Frito-Lay, Inc.	2	17000000	2014	450000			0	NGO, Private	Economic Assets, Special Consideration
Houston County	Veterans High School	2	67125240	2014	290236			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	King Chapel Elementary School	0	9229238	2014	66559			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 8	0	925750	2014	1860			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Landfill	1	4000000	2014	9900			0	Government, Landfill	Essential, Important
Houston County	Houston County Fire Department Station 7	0	875000	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Sandy Run Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Victoria Gardens Nursing Home	0	320000	2014	3300			0	Medical, NGO, Clinics, Private	Important, Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 6	0	342177	2014	1960			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Fire Department Station 1	0	354100	2014	4870			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Houston County Courthouse	2	23971957	2014	32200			0	Government, Court House, Government Offices	Important, Historic Consideration
Perry city	Herman Ragin Center	0	6111916	2014	50703			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry High	0	32321127	2014	219974			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Middle School	2	19996776	2014	136590			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Matt Arthur Elementary School	0	12828739	2014	92376			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Morningside Elementary School	0	8900710	2014	62024			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry City Hall	0	1663680	2014	17910			0	Government, Government Offices, City Hall	Important
Perry city	Perry Public Safety Office	0	4265282	2014	25158			0	Emergency Services, Government, Police	Essential, Important
Perry city	Perry WPCP	2	12401605	2014	85244			0	Government, Water/Sewer	Lifeline, Important
Perry city	Perry-Houston County Airport	0	4700000	2014	10000			0	Government, Government Offices, Transportation	Transportation, Important, Economic Assets
Perry city	HCBOE Central Office	0	4141200	2014	29000			0	Government, Government Offices	Important
Perry city	HCBOE Transportation Shop	0	1641200	2014	36681			0	Government, Government Offices	Transportation, Important
Perry city	Tucker Elementary	0	9127344	2014	81498			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry City Hall	0	2526661	2014	25158			0	Government, Government Offices, City Hall	Important
Perry city	PPG Industries, Inc	0	41400000	2014	300000			0	NGO, Private	Economic Assets
Perry city	Georgia National Fairgrounds & Agricenter	1	28507900	2014	280310			0	Government, Government Offices	Economic Assets
Perry city	Guardian Center	2	29796730	2014	710000			0	NGO, Private	Important, Economic Assets
Perry city	Perry-Houston County Library	0	1440000	2014	11400			0	Government, Library	Special Consideration
Perry city	Perry Hospital	2	29517650	2014	81428			0	Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Perry city	Summerhill Senior Living Community	0	4690400	2014	34000			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Perry city	Church Home for the Aged	0	1574500	2014	4000			0	Medical, NGO, Clinics, Non-Profit	Vulnerable Population, Special Consideration
Perry city	Old Houston County Courthouse	0	5435319	2014	22250			0	Government, Court House, Government Offices	Important, Special Consideration
Perry city	Houston County Correctional Institution	0	67420000	2014	151400			0	Government, Jails	Special Consideration
Perry city	Langston Road Elementary	0	15000000	2014	81094			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Fire Department Station #2	0	1000000	2014	7017			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Gas Equipment	0	650000	2014	1000			0	Government, Transportation	Transportation, Important
Warner Robins city	Pearl Stephens Elementary School	0	10136962	2014	74697			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Bus Shop	0	391000	2014	4250			0	Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	HCBOE Warehouse	0	2585660	2014	28105			0	Government, Government Offices	Important
Warner Robins city	Houston County DFCS	0	4847739	2014	32500			0	Government, Government Offices	
Warner Robins city	Magistrate Court	0	2281668	2014	26800			0	Government, Government Offices	Important
Warner Robins city	Houston Healthcare Cancer Center	0	11000000	2014	30000			0	Government, Medical, Hospital	Important, Vulnerable Population
Warner Robins city	Warner Robins High	0	31834638	2014	299517			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Middle School	0	16101511	2014	112081			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Waste Water Plant	2	9441994	2014	4000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Water Well #2A	0	120000	2014	1800			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston County Annex	0	7603775	2014	38000			0	Government, Government Offices	Important
Warner Robins city	Houston County Sheriff/State Ct. Bldg.	0	2337052	2014	41000			0	Emergency Services, Government, Police, Sheriff	Essential, Important
Warner Robins city	Middle GA Tech Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Story Road Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Road Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Shamrock Apartments Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Coleman Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Burke Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Breckenridge Lift Station (Pine View Estates)	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Middle Georgia Technical College	0	18750222	2014	33480			0	Education, Government, VoTech	Important, Vulnerable Population
Warner Robins city	Sacred Heart School	0	12085000	2014	13400			0	Government, NGO, K - 12, Non-Profit	Special Consideration
Warner Robins city	Flint EMC Service Center	0	2091056	2014	23762			0	NGO, Private	Important

## Facility Wildfire Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Warner Robins city	E-911 Center	0	2052404	2014	6000			0	Emergency Services, Government, EMS	Essential, Lifeline, Important
Warner Robins city	Houston County Career & Technology Center	0	3012580	2014	15866			0	Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County Crossroad Center	0	9642384	2014	67084			0	Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County High	0	40387344	2014	262829			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Maintenance Shop & Bus Shop	0	1391000	2014	10700			0	Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	Feagin Mill Middle School	0	19996776	2014	136590			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Robins Air Force Base	0	305000000	2014	10500000			0	Government, Government Offices	Essential, Important, Economic Assets, Special Consideration
Warner Robins city	Warner Robins Fire Department Station #1	2	1524700	2014	8393			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #3	0	200000	2014	2347			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #4	0	529900	2014	3666			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #5	0	187000	2014	2400			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Pol. Dept. Training Ctr.	0	175000	2014	1770			0	Emergency Services, Government, Police	Important
Warner Robins city	Warner Robins Public Works	2	1250000	2014	12420			0	Government, Government Offices	Important
Warner Robins city	McConnell-Talbert Stadium	0	3081700	2014	18272			0	Government, Government Offices	Special Consideration
Warner Robins city	Miller Elementary School	0	10023897	2014	69729			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Perdue Elementary	0	10023886	2014	70260			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Russell Elementary School	0	10401302	2014	72763			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Shirley Hills Elementary School	0	9425331	2014	63949			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Houston County Juvenile Court	0	1351300	2014	19350			0	Government, Court House, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #7	0	1003800	2014	7700			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #8	2	1003800	2014	7700			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Middle Georgia State College Warner Robins Campus	0	38000000	2014	44500			0	Education, Government, University	Important, Vulnerable Population, Special Consideration
Warner Robins city	Tabor Academy	2	13722163	2014	89337			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	R W Lindsey Elementary School	0	8417982	2014	65610			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Elementary School	2	10023886	2014	70260			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside HighSchool	2	27412378	2014	202902			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Middle School	2	14941291	2014	109653			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Parkwood Elementary School	2	9452486	2014	66710			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Maintenance Shop	0	2024272	2014	11163			0	Government, Government Offices	Important
Warner Robins city	Warner Robins Senior Citizen Center	2	228700	2014	10500			0	Government, Government Offices	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Recreation Department	0	1567100	2014	21270			0	Government, Government Offices	
Warner Robins city	Pump Station	0	1065532	2014	1500			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Pump Station	0	76000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Center	0	4550000	2014	25000			0	Education, Government, K - 12	Essential, Important, Special Consideration
Warner Robins city	BellSouth Central Office	2	4142512	2014	33537			0	NGO, Private	Economic Assets
Warner Robins city	Warner Robins Christian Academy	2	750000	2014	15000			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Nola Brantley Public Library	0	2.4E+12	2014	18000			0	Government, Library	Special Consideration
Warner Robins city	Evergreen Baptist Christian School	0	2029900	2014	26820			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Fellowship Christian Academy	2	2471500	2014	44125			0	Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Rehab and Nusing Center	2	825000	2014	13200			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Warner Robins city	Elberta Health Care	0	3699285	2014	16626			0	Medical, NGO, Clinics, Private	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Green Street Lift Station	0	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston Medical Center	0	197081400	2014	800000			0	Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Warner Robins city	Pavilion Health Facilities	0	20300700	2014	51200			0	Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Peachbelt Health Care	2	3238844	2014	24261			0	Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Dunbar Road Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Westside Elementary School	2	9095060	2014	69962			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Georgia Military College	2	1694800	2014	26490			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Law Enforcement Center	0	9780000	2014	40284			0	Emergency Services, Government, Police, Jails	Essential, Important
Warner Robins city	Warner Robins City Hall	0	4100000	2014	235000			0	Government, Government Offices, City Hall	Essential, Important
Warner Robins city	Warner Robins Civic Center	0	12000000	2014	22000			0	Government, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #6	0	619600	2014	7800			0	Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Training Ctr.	2	86300	2014	1800			0	Emergency Services, Government, Fire Fighters	Important

## Facility Wind Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Centerville city	Eagle Springs Elementary	2	16418586	2014	81584			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville-Houston County Library	2	2476700	2014	18000			0	Government, Library	Special Consideration
Centerville city	Centerville Elementary	2	10189441	2014	71103			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Thomson Middle School	2	20582669	2014	140592			0	Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville City Hall	2	18085000	2014	18360			0	Government, Government Offices, City Hall	Important
Centerville city	Centerville Fire Department	2	2007300	2014	1769			0	Emergency Services, Government, Fire Fighters	Essential, Important
Centerville city	Centerville Public Safety Building	2	10500000	2014	10099			0	Emergency Services, Government, Police	Essential, Important
Centerville city	Centerville Water Treatment Plant #1	2	220000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Water Treatment Plant #2	2	510000	2014	4500			0	Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Municipal Court	2	550500	2014	5250			0	Government, Court House, Government Offices	Important
Centerville city	Southern Heritage	2	610500	2014	9874			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Centerville city	Willow Creek Personal Home Care	2	651100	2014	9758			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 2	2	425608	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Bonaire Middle School Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire #2 Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Elmdale Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Shannonridge Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire Elementary School	2	9694828	2014	65122			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Houston County	Bonaire Middle School	2	19996776	2014	136593			0	Education, Government, K - 12	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 4	2	325800	2014	2400			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Pyles Road Lift Station	2	346500	2014	1044			0	Government, Water/Sewer	Lifeline, Important
Houston County	Houston County Fire Department Station 3	2	845350	2014	2140			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Mossy Creek Middle	2	21645533	2014	147852			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 5	2	360000	2014	2430			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Middle Georgia Con-Gen Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Frito-Lay, Inc.	2	17000000	2014	450000			0	NGO, Private	Economic Assets, Special Consideration
Houston County	Veterans High School	2	67125240	2014	290236			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	King Chapel Elementary School	2	9229238	2014	66559			0	Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 8	2	925750	2014	1850			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Landfill	2	4000000	2014	9900			0	Government, Landfill	Essential, Important
Houston County	Houston County Fire Department Station 7	2	875000	2014	2000			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Sandy Run Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Houston County	Victoria Gardens Nursing Home	2	320000	2014	3300			0	Medical, NGO, Clinics, Private	Important, Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 6	2	342177	2014	1960			0	Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Fire Department Station 1	2	354100	2014	4870			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Houston County Courthouse	2	23971957	2014	32200			0	Government, Court House, Government Offices	Important, Historic Consideration
Perry city	Herman Ragin Center	2	6111916	2014	50703			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry High	2	32321127	2014	219974			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Middle School	2	19996776	2014	136590			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Matt Arthur Elementary School	2	12828739	2014	92376			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Morningside Elementary School	2	8900710	2014	62024			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry City Hall	2	1663680	2014	17910			0	Government, Government Offices, City Hall	Important
Perry city	Perry Public Safety Office	2	4265282	2014	25158			0	Emergency Services, Government, Police	Essential, Important
Perry city	Perry WPCP	2	12401605	2014	85244			0	Government, Water/Sewer	Lifeline, Important
Perry city	Perry-Houston County Airport	2	4700000	2014	10000			0	Government, Government Offices, Transportation	Transportation, Important, Economic Assets
Perry city	HCBOE Central Office	2	4141200	2014	29000			0	Government, Government Offices	Important
Perry city	HCBOE Transportation Shop	2	1641200	2014	36681			0	Government, Government Offices	Transportation, Important
Perry city	Tucker Elementary	2	9127344	2014	81498			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry City Hall	2	2552661	2014	25158			0	Government, Government Offices, City Hall	Important
Perry city	PPG Industries, Inc	2	41400000	2014	300000			0	NGO, Private	Economic Assets
Perry city	Georgia National Fairgrounds & Agricenter	2	28507900	2014	280310			0	Government, Government Offices	Economic Assets
Perry city	Guardian Center	2	29796730	2014	710000			0	NGO, Private	Important, Economic Assets
Perry city	Perry-Houston County Library	2	1440000	2014	11400			0	Government, Library	Special Consideration
Perry city	Perry Hospital	2	29517650	2014	81428			0	Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Perry city	Summerhill Senior Living Community	2	4690400	2014	34000			0	Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Perry city	Church Home for the Aged	2	1574500	2014	4000			0	Medical, NGO, Clinics, Non-Profit	Vulnerable Population, Special Consideration
Perry city	Old Houston County Courthouse	2	5435319	2014	22250			0	Government, Court House, Government Offices	Important, Special Consideration
Perry city	Houston County Correctional Institution	2	67420000	2014	151400			0	Government, Jails	Special Consideration
Perry city	Langston Road Elementary	2	15000000	2014	81094			0	Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Fire Department Station #2	2	1000000	2014	7017			0	Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Gas Equipment	2	650000	2014	1000			0	Government, Transportation	Transportation, Important
Warner Robins city	Pearl Stephens Elementary School	2	10136962	2014	74697			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Bus Shop	2	391000	2014	4250			0	Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	HCBOE Warehouse	2	2585660	2014	28105			0	Government, Government Offices	Important
Warner Robins city	Houston County DFCS	2	4847739	2014	32500			0	Government, Government Offices	Important
Warner Robins city	Magistrate Court	2	2281668	2014	26800			0	Government, Government Offices	Important
Warner Robins city	Houston Healthcare Cancer Center	2	11000000	2014	30000			0	Government, Medical, Hospital	Important, Vulnerable Population
Warner Robins city	Warner Robins High	2	31834638	2014	299517			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Middle School	2	16101511	2014	112081			0	Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Waste Water Plant	2	9441994	2014	4000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Water Well #2A	2	120000	2014	1800			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston County Annex	2	7603775	2014	38000			0	Government, Government Offices	Important
Warner Robins city	Houston County Sheriff/State Ct. Bldg.	2	2337052	2014	41000			0	Emergency Services, Government, Police, Sheriff	Essential, Important
Warner Robins city	Middle GA Tech Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Story Road Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Road Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Shamrock Apartments Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Coleman Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Burke Lift Station	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Breckenridge Lift Station (Pine View Estates)	2	1000000	2014	3000			0	Government, Water/Sewer	Lifeline, Important
Warner Robins city	Middle Georgia Technical College	2	18750222	2014	33480			0	Education, Government, VoTech	Important, Vulnerable Population
Warner Robins city	Sacred Heart School	2	12085000	2014	13400			0	Government, NGO, K - 12, Non-Profit	Special Consideration
Warner Robins city	Flint EMC Service Center	2	2091056	2014	23762			0	NGO, Private	Important

## Facility Wind Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Warner Robins city	E-911 Center	2	2052404	2014	6000				0 Emergency Services, Government, EMS	Essential, Lifeline, Important
Warner Robins city	Houston County Career & Technology Center	2	3012580	2014	15866				0 Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County Crossroad Center	2	9642384	2014	67084				0 Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County High	2	40387344	2014	262829				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Maintenance Shop & Bus Shop	2	1391000	2014	10700				0 Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	Feagin Mill Middle School	2	19996776	2014	136590				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Robins Air Force Base	2	305000000	2014	10500000				0 Government, Government Offices	Essential, Important, Economic Assets, Special Consideration
Warner Robins city	Warner Robins Fire Department Station #1	2	1524700	2014	8393				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #3	2	200000	2014	2347				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #4	2	529900	2014	3666				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #5	2	187000	2014	2400				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Pol. Dept. Training Ctr.	2	175000	2014	1770				0 Emergency Services, Government, Police	Important
Warner Robins city	Warner Robins Public Works	2	1250000	2014	12420				0 Government, Government Offices	Important
Warner Robins city	McConnell-Talbert Stadium	2	3081700	2014	18272				0 Government, Government Offices	Special Consideration
Warner Robins city	Miller Elementary School	2	10023897	2014	69279				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Perdue Elementary	2	10023886	2014	70260				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Russell Elementary School	2	10401302	2014	72763				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Shirley Hills Elementary School	2	9425331	2014	63949				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Houston County Juvenile Court	2	1351300	2014	19350				0 Government, Court House, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #7	2	1003800	2014	7700				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #8	2	1003800	2014	7700				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Middle Georgia State College Warner Robins Campus	2	38000000	2014	44500				0 Education, Government, University	Important, Vulnerable Population, Special Consideration
Warner Robins city	Tabor Academy	2	13722163	2014	89337				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	R W Lindsey Elementary School	2	8417982	2014	65610				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Elementary School	2	10023886	2014	70260				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside HighSchool	2	27412378	2014	202902				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Middle School	2	14941291	2014	109653				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Parkwood Elementary School	2	9452486	2014	66710				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Maintenance Shop	2	2024272	2014	11163				0 Government, Government Offices	Important
Warner Robins city	Warner Robins Senior Citizen Center	2	228700	2014	10500				0 Government, Government Offices	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Recreation Department	2	1567100	2014	21270				0 Government, Government Offices	
Warner Robins city	Pump Station	2	1065532	2014	1500				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Pump Station	2	76000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Center	2	4550000	2014	25000				0 Education, Government, K - 12	Essential, Important, Special Consideration
Warner Robins city	BellSouth Central Office	2	4142512	2014	23537				0 NGO, Private	Economic Assets
Warner Robins city	Warner Robins Christian Academy	2	750000	2014	15000				0 Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Nola Brantley Public Library	2	2.4E+12	2014	18000				0 Government, Library	Special Consideration
Warner Robins city	Evergreen Baptist Christian School	2	2029900	2014	26820				0 Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Fellowship Christian Academy	2	2471500	2014	44125				0 Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Rehab and Nusing Center	2	825000	2014	13200				0 Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Warner Robins city	Elberta Health Care	2	3699285	2014	16626				0 Medical, NGO, Clinics, Private	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Green Street Lift Station	2	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston Medical Center	2	197081400	2014	800000				0 Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Warner Robins city	Pavilion Health Facilities	2	20300700	2014	51200				0 Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Peachbelt Health Care	2	3238844	2014	24261				0 Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Dunbar Road Lift Station	2	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Westside Elementary School	2	9095060	2014	69962				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Georgia Military College	2	1694800	2014	26490				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Law Enforcement Center	2	9780000	2014	40284				0 Emergency Services, Government, Police, Jails	Essential, Important
Warner Robins city	Warner Robins City Hall	2	4100000	2014	235000				0 Government, Government Offices, City Hall	Essential, Important
Warner Robins city	Warner Robins Civic Center	2	12000000	2014	22000				0 Government, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #6	2	619600	2014	7800				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Training Ctr.	2	86300	2014	1800				0 Emergency Services, Government, Fire Fighters	Important

## Facility SLOSH Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value	Building size	Content value	Content value	Functional Use value	Facility type	Risk
Centerville city	Eagle Springs Elementary	0	16418586	2014	81584				0 Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville-Houston County Library	0	2476700	2014	18000				0 Government, Library	Special Consideration
Centerville city	Centerville Elementary	0	10189441	2014	71103				0 Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Thomson Middle School	0	20582669	2014	140592				0 Education, Government, K - 12	Important, Vulnerable Population
Centerville city	Centerville City Hall	0	18085000	2014	18360				0 Government, Government Offices, City Hall	Important
Centerville city	Centerville Fire Department	0	2007300	2014	1769				0 Emergency Services, Government, Fire Fighters	Essential, Important
Centerville city	Centerville Public Safety Building	0	10500000	2014	10099				0 Emergency Services, Government, Police	Essential, Important
Centerville city	Centerville Water Treatment Plant #1	0	220000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Water Treatment Plant #2	0	510000	2014	4500				0 Government, Water/Sewer	Lifeline, Important
Centerville city	Centerville Municipal Court	0	550500	2014	5250				0 Government, Court House, Government Offices	Important
Centerville city	Southern Heritage	0	610500	2014	9874				0 Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Centerville city	Willow Creek Personal Home Care	0	651100	2014	9758				0 Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 2	0	425608	2014	2000				0 Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Bonaire Middle School Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire #2 Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Houston County	Elmdale Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Houston County	Shannonridge Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Houston County	Bonaire Elementary School	0	9694828	2014	65122				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Houston County	Bonaire Middle School	0	19996776	2014	136593				0 Education, Government, K - 12	Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 4	0	325800	2014	2400				0 Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Pyles Road Lift Station	0	346500	2014	1044				0 Government, Water/Sewer	Lifeline, Important
Houston County	Houston County Fire Department Station 3	0	845350	2014	2140				0 Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Mossy Creek Middle	0	21645533	2014	147852				0 Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 5	0	360000	2014	2430				0 Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Middle Georgia Con-Gen Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Houston County	Frito-Lay, Inc.	0	17000000	2014	450000				0 NGO, Private	Economic Assets, Special Consideration
Houston County	Veterans High School	0	67125240	2014	290236				0 Education, Government, K - 12	Important, Vulnerable Population
Houston County	King Chapel Elementary School	0	9229238	2014	66559				0 Education, Government, K - 12	Important, Vulnerable Population
Houston County	Houston County Fire Department Station 8	0	925750	2014	1860				0 Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Landfill	0	4000000	2014	9900				0 Government, Landfill	Essential, Important
Houston County	Houston County Fire Department Station 7	0	875000	2014	2000				0 Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Sandy Run Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Houston County	Victoria Gardens Nursing Home	0	320000	2014	3300				0 Medical, NGO, Clinics, Private	Important, Vulnerable Population, Special Consideration
Houston County	Houston County Fire Department Station 6	0	342177	2014	1960				0 Emergency Services, Government, Fire Fighters	Essential, Important
Houston County	Houston County Fire Department Station 1	0	354100	2014	4870				0 Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Houston County Courthouse	0	23971957	2014	32200				0 Government, Court House, Government Offices	Important, Historic Consideration
Perry city	Herman Ragin Center	0	6111916	2014	50703				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry High	0	32321127	2014	219974				0 Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Middle School	0	19996776	2014	136590				0 Education, Government, K - 12	Important, Vulnerable Population
Perry city	Matt Arthur Elementary School	0	12828739	2014	92376				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Morningside Elementary School	0	8900710	2014	62024				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Perry city	Perry City Hall	0	1663680	2014	17910				0 Government, Government Offices, City Hall	Important
Perry city	Perry Public Safety Office	0	4265282	2014	25158				0 Emergency Services, Government, Police	Essential, Important
Perry city	Perry WPCP	0	12401605	2014	85244				0 Government, Water/Sewer	Lifeline, Important
Perry city	Perry-Houston County Airport	0	4700000	2014	10000				0 Government, Government Offices, Transportation	Transportation, Important, Economic Assets
Perry city	HCBOE Central Office	0	4141200	2014	29000				0 Government, Government Offices	Important
Perry city	HCBOE Transportation Shop	0	1641200	2014	36681				0 Government, Government Offices	Transportation, Important
Perry city	Tucker Elementary	0	9127344	2014	81498				0 Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry City Hall	0	2552661	2014	25158				0 Government, Government Offices, City Hall	Important
Perry city	PPG Industries, Inc	0	41400000	2014	300000				0 NGO, Private	Economic Assets
Perry city	Georgia National Fairgrounds & Agricenter	0	28507900	2014	280310				0 Government, Government Offices	Economic Assets
Perry city	Guardian Center	0	29796730	2014	710000				0 NGO, Private	Important, Economic Assets
Perry city	Perry-Houston County Library	0	1440000	2014	11400				0 Government, Library	Special Consideration
Perry city	Perry Hospital	0	29517650	2014	81428				0 Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Perry city	Summerhill Senior Living Community	0	4690400	2014	34000				0 Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Perry city	Church Home for the Aged	0	1574500	2014	4000				0 Medical, NGO, Clinics, Non-Profit	Vulnerable Population, Special Consideration
Perry city	Old Houston County Courthouse	0	5435319	2014	22250				0 Government, Court House, Government Offices	Important, Special Consideration
Perry city	Houston County Correctional Institution	0	67420000	2014	151400				0 Government, Jails	Special Consideration
Perry city	Langston Road Elementary	0	15000000	2014	81094				0 Education, Government, K - 12	Important, Vulnerable Population
Perry city	Perry Fire Department Station #2	0	1000000	2014	7017				0 Emergency Services, Government, Fire Fighters	Essential, Important
Perry city	Gas Equipment	0	650000	2014	1000				0 Government, Transportation	Transportation, Important
Warner Robins city	Pearl Stephens Elementary School	0	10136962	2014	74697				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Bus Shop	0	391000	2014	4250				0 Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	HCBOE Warehouse	0	2585660	2014	28105				0 Government, Government Offices	Important
Warner Robins city	Houston County DFCS	0	4847739	2014	32500				0 Government, Government Offices	
Warner Robins city	Magistrate Court	0	2281668	2014	26800				0 Government, Government Offices	Important
Warner Robins city	Houston Healthcare Cancer Center	0	11000000	2014	30000				0 Government, Medical, Hospital	Important, Vulnerable Population
Warner Robins city	Warner Robins High	0	31834638	2014	299517				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Middle School	0	16101511	2014	112081				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Waste Water Plant	0	9441994	2014	4000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Water Well #2A	0	120000	2014	1800				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston County Annex	0	7603775	2014	38000				0 Government, Government Offices	Important
Warner Robins city	Houston County Sheriff/State Ct. Bldg.	0	2337052	2014	41000				0 Emergency Services, Government, Police, Sheriff	Essential, Important
Warner Robins city	Middle GA Tech Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important

## Facility SLOSH Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value	Building size	Content value	Content value	Functional Use value	Facility type	Risk
Warner Robins city	Story Road Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Road Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Shamrock Apartments Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Coleman Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Burke Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Breckenridge Lift Station (Pine View Estates)	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Middle Georgia Technical College	0	18750222	2014	33480				0 Education, Government, VoTech	Important, Vulnerable Population
Warner Robins city	Sacred Heart School	0	12085000	2014	13400				0 Government, NGO, K - 12, Non-Profit	Special Consideration
Warner Robins city	Flint EMC Service Center	0	2091056	2014	23762				0 NGO, Private	Important
Warner Robins city	E-911 Center	0	2052404	2014	6000				0 Emergency Services, Government, EMS	Essential, Lifeline, Important
Warner Robins city	Houston County Career & Technology Center	0	3012580	2014	15866				0 Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County Crossroad Center	0	9642384	2014	67084				0 Education, Government, K - 12	Important, Special Consideration
Warner Robins city	Houston County High	0	40387344	2014	262829				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	HCBOE Maintenance Shop & Bus Shop	0	1391000	2014	10700				0 Government, Government Offices, Transportation	Transportation, Important
Warner Robins city	Feagin Mill Middle School	0	19996776	2014	136590				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Robins Air Force Base	0	3.05E+09	2014	10500000				0 Government, Government Offices	Essential, Important, Economic Assets, Special Consideration
Warner Robins city	Warner Robins Fire Department Station #1	0	1524700	2014	8393				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #3	0	200000	2014	2347				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #4	0	529900	2014	3666				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #5	0	187000	2014	2400				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Pol. Dept. Training Ctr.	0	175000	2014	1770				0 Emergency Services, Government, Police	Important
Warner Robins city	Warner Robins Public Works	0	1250000	2014	12420				0 Government, Government Offices	Important
Warner Robins city	McConnell-Talbert Stadium	0	3081700	2014	18272				0 Government, Government Offices	Special Consideration
Warner Robins city	Miller Elementary School	0	10023897	2014	69729				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Perdue Elementary	0	10023886	2014	70260				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Russell Elementary School	0	10401302	2014	72763				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Shirley Hills Elementary School	0	9425331	2014	63949				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Houston County Juvenile Court	0	1351300	2014	19350				0 Government, Court House, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #7	0	1003800	2014	7700				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Station #8	0	1003800	2014	7700				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Middle Georgia State College Warner Robins Campus	0	38000000	2014	44500				0 Education, Government, University	Important, Vulnerable Population, Special Consideration
Warner Robins city	Tabor Academy	0	13722163	2014	89337				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	R W Lindsey Elementary School	0	8417982	2014	65610				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Elementary School	0	10023886	2014	70260				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside HighSchool	0	27412378	2014	202902				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Northside Middle School	0	14941291	2014	109653				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Parkwood Elementary School	0	9452486	2014	66710				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Maintenance Shop	0	2024272	2014	11163				0 Government, Government Offices	Important
Warner Robins city	Warner Robins Senior Citizen Center	0	228700	2014	10500				0 Government, Government Offices	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Recreation Department	0	1567100	2014	21270				0 Government, Government Offices	
Warner Robins city	Pump Station	0	1065532	2014	1500				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Pump Station	0	76000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Elberta Center	0	4550000	2014	25000				0 Education, Government, K - 12	Essential, Important, Special Consideration
Warner Robins city	BellSouth Central Office	0	4142512	2014	23537				0 NGO, Private	Economic Assets
Warner Robins city	Warner Robins Christian Academy	0	750000	2014	15000				0 Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Nola Brantley Public Library	0	2.4E+12	2014	18000				0 Government, Library	Special Consideration
Warner Robins city	Evergreen Baptist Christian School	0	2029900	2014	26820				0 Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Fellowship Christian Academy	0	2471500	2014	44125				0 Education, NGO, K - 12, Non-Profit	Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Rehab and Nusing Center	0	825000	2014	13200				0 Medical, NGO, Clinics, Private	Vulnerable Population, Special Consideration
Warner Robins city	Elberta Health Care	0	3699285	2014	16626				0 Medical, NGO, Clinics, Private	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Green Street Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Houston Medical Center	0	197081400	2014	800000				0 Government, Medical, Hospital	Essential, Lifeline, Important, Vulnerable Population, Special Consideration
Warner Robins city	Pavilion Health Facilities	0	20300700	2014	51200				0 Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Peachbelt Health Care	0	3238844	2014	24261				0 Government, Medical, Hospital	Essential, Important, Vulnerable Population, Special Consideration
Warner Robins city	Dunbar Road Lift Station	0	1000000	2014	3000				0 Government, Water/Sewer	Lifeline, Important
Warner Robins city	Westside Elementary School	0	9095060	2014	69962				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Georgia Military College	0	1694800	2014	26490				0 Education, Government, K - 12	Important, Vulnerable Population, Special Consideration
Warner Robins city	Warner Robins Law Enforcement Center	0	9780000	2014	40284				0 Emergency Services, Government, Police, Jails	Essential, Important
Warner Robins city	Warner Robins City Hall	0	4100000	2014	235000				0 Government, Government Offices, City Hall	Essential, Important
Warner Robins city	Warner Robins Civic Center	0	12000000	2014	22000				0 Government, Government Offices	
Warner Robins city	Warner Robins Fire Department Station #6	0	619600	2014	7800				0 Emergency Services, Government, Fire Fighters	Essential, Important
Warner Robins city	Warner Robins Fire Department Training Ctr.	0	86300	2014	1800				0 Emergency Services, Government, Fire Fighters	Important

## **Appendix B**

### **Growth and Development Trends / Community Information**

- Houston County/Cities of Centerville, Perry and Warner Robins Joint Comprehensive Plan Introduction
- Houston County Demographic Information (American Community Survey)
- Houston County Labor Profile

**JOINT COMPREHENSIVE PLAN  
FOR HOUSTON COUNTY AND CITIES OF  
CENTERVILLE, PERRY, AND  
WARNER ROBINS**

**COMMUNITY ASSESSMENT AND  
COMMUNITY PARTICIPATION PROGRAM**



**Prepared by  
Comprehensive Planning Committee  
with Assistance from  
Middle Georgia Regional  
Development Center**

**July 2006**

# INTRODUCTION

The 1989 Georgia Planning Act requires that each community in Georgia prepare and adopt a local comprehensive plan. It is in the best interest of a community to develop a comprehensive plan not only because it is required to meet State law and maintain its Qualified Local Government Status (QLG), but also to achieve certain local goals, such as:

- A growing and balanced economy;
- Protection of environmental, natural, and cultural resources;
- Provision of infrastructure and services to support efficient growth and development patterns;
- Access to adequate and affordable housing for all residents;
- Coordination of land use planning and transportation planning to support sustainable economic development, protection of natural and cultural resources, and provision of adequate and affordable housing;
- Coordination of local planning efforts with other local service providers and authorities, neighboring communities, and state and regional plans;
- Involve all segments of the community in developing the vision for the community's future;
- Generate local pride and enthusiasm about the future of the community; and
- Provide a guide to everyday decision-making for use by local government officials and community leaders.

The Georgia Department of Community Affairs has been the authority by O.C.G.A. 50-8-1 et seq to establish standards and procedures for appropriate and timely comprehensive planning by all governments in Georgia. The latest standards and procedures became effective on May 1, 2005. These latest standards have divided the comprehensive plan into three components: (1) a Community Assessment, (2) a Community Participation Program, and (3) a Community Agenda, as described below.

- **Community Assessment** - An objective assessment of data and information about the community. It is to be a concise and informative report to be used during the development of the Community Agenda portion of the Plan and includes:
  - List of potential issues and opportunities the community wishes to take action to address;
  - Analysis of existing development patterns, including a map of recommended character areas;
  - Consistency with State Quality Community Objectives; and
  - Analysis of data and information to verify potential issues and opportunities.
- **Community Participation Program** - Describes the local government's strategy for ensuring adequate public and stakeholder involvement in the preparation of the Community Agenda, and includes:
  - List of stakeholders;
  - Community participation techniques; and
  - Community Agenda Completion Schedule.

- **Community Agenda** - Includes the community's vision for the future and its strategy for achieving this vision. The major components of the Community Agenda are:
  - A community vision for the future physical development of the community expressed in the form of a map indicating unique character areas, each with its own strategy for guiding future development patterns;
  - A list of issues and opportunities identified by the community for further action; and
  - An implementation program for achieving the community's vision for the future and addressing the identified issues and opportunities.

The sections of the Comprehensive Plan that are contained with this document are the Community Assessment and Community Participation Program.

Houston County and the Cities of Centerville, Perry, and Warner Robins have a desire to work together to develop a Joint Comprehensive Plan. The first action taken by these local governments was the formation of a Comprehensive Planning Committee appointed by the elected officials of the involved communities. The membership of this group is diverse and represents a cross-section of the community. The responsibilities of this group is to facilitate the entire planning process and help formulate a Joint Comprehensive Plan for Houston County and the Cities of Centerville, Perry, and Warner Robins, and to invite and encourage community participation throughout the planning process.

In short, the Joint Comprehensive Plan is intended to be:

- A **Roadmap** for a thriving community....
- A **Guidebook** for local decisions....
- A **Commitment** to these communities future....

The journey now begins to accomplish this end.



B21001

SEX BY AGE BY VETERAN STATUS FOR THE CIVILIAN POPULATION 18 YEARS AND OVER

Universe: Civilian population 18 years and over  
2009-2013 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Houston County, Georgia	
	Estimate	Margin of Error
Total:	102,633	+/-423
Veteran	18,505	+/-922
Nonveteran	84,128	+/-930
Male:	48,125	+/-395
Veteran	15,663	+/-739
Nonveteran	32,462	+/-785
18 to 34 years:	15,928	+/-248
Veteran	1,703	+/-397
Nonveteran	14,225	+/-453
35 to 54 years:	18,427	+/-276
Veteran	5,812	+/-475
Nonveteran	12,615	+/-457
55 to 64 years:	7,227	+/-82
Veteran	3,679	+/-335
Nonveteran	3,548	+/-337
65 to 74 years:	3,962	+/-76
Veteran	2,462	+/-233
Nonveteran	1,500	+/-244
75 years and over:	2,581	+/-59
Veteran	2,007	+/-129
Nonveteran	574	+/-146
Female:	54,508	+/-143
Veteran	2,842	+/-480
Nonveteran	51,666	+/-487
18 to 34 years:	16,993	+/-167
Veteran	368	+/-150
Nonveteran	16,625	+/-208
35 to 54 years:	20,720	+/-133
Veteran	1,552	+/-355
Nonveteran	19,168	+/-344
55 to 64 years:	8,040	+/-81
Veteran	757	+/-235
Nonveteran	7,283	+/-230
65 to 74 years:	4,875	+/-88
Veteran	93	+/-67
Nonveteran	4,782	+/-114

	Houston County, Georgia	
	Estimate	Margin of Error
75 years and over:	3,880	+/-54
Veteran	72	+/-55
Nonveteran	3,808	+/-72

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2009-2013 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

#### Explanation of Symbols:

1. An '\*\*\*' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '\*\*\*\*' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '\*\*\*\*\*' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.



S1810

DISABILITY CHARACTERISTICS

2009-2013 American Community Survey 5-Year Estimates

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Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

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Subject	Houston County, Georgia				
	Total		With a disability		Percent with a disability Estimate
	Estimate	Margin of Error	Estimate	Margin of Error	
Total civilian noninstitutionalized population	139,200	+/-534	16,101	+/-858	11.6%
Population under 5 years	10,265	+/-36	41	+/-46	0.4%
With a hearing difficulty	(X)	(X)	41	+/-46	0.4%
With a vision difficulty	(X)	(X)	16	+/-26	0.2%
Population 5 to 17 years	27,503	+/-70	1,247	+/-317	4.5%
With a hearing difficulty	(X)	(X)	114	+/-89	0.4%
With a vision difficulty	(X)	(X)	358	+/-191	1.3%
With a cognitive difficulty	(X)	(X)	794	+/-215	2.9%
With an ambulatory difficulty	(X)	(X)	79	+/-59	0.3%
With a self-care difficulty	(X)	(X)	268	+/-139	1.0%
Population 18 to 64 years	86,535	+/-537	8,639	+/-723	10.0%
With a hearing difficulty	(X)	(X)	1,720	+/-287	2.0%
With a vision difficulty	(X)	(X)	1,646	+/-276	1.9%
With a cognitive difficulty	(X)	(X)	2,981	+/-392	3.4%
With an ambulatory difficulty	(X)	(X)	4,277	+/-503	4.9%
With a self-care difficulty	(X)	(X)	1,323	+/-319	1.5%
With an independent living difficulty	(X)	(X)	2,742	+/-427	3.2%
Population 65 years and over	14,897	+/-152	6,174	+/-505	41.4%
With a hearing difficulty	(X)	(X)	2,482	+/-358	16.7%
With a vision difficulty	(X)	(X)	1,140	+/-220	7.7%
With a cognitive difficulty	(X)	(X)	1,470	+/-307	9.9%
With an ambulatory difficulty	(X)	(X)	4,202	+/-457	28.2%
With a self-care difficulty	(X)	(X)	1,220	+/-245	8.2%
With an independent living difficulty	(X)	(X)	2,402	+/-357	16.1%
SEX					
Male	66,631	+/-528	7,680	+/-670	11.5%
Female	72,569	+/-241	8,421	+/-607	11.6%
RACE AND HISPANIC OR LATINO ORIGIN					
One Race	135,448	+/-772	15,682	+/-844	11.6%

Subject	Houston County, Georgia				
	Total		With a disability		Percent with a disability
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate
White alone	87,277	+/-750	10,985	+/-793	12.6%
Black or African American alone	40,425	+/-519	4,459	+/-507	11.0%
American Indian and Alaska Native alone	164	+/-89	62	+/-38	37.8%
Asian alone	3,564	+/-294	91	+/-54	2.6%
Native Hawaiian and Other Pacific Islander alone	57	+/-78	5	+/-9	8.8%
Some other race alone	3,961	+/-691	80	+/-66	2.0%
Two or more races	3,752	+/-638	419	+/-165	11.2%
White alone, not Hispanic or Latino	83,201	+/-451	10,825	+/-787	13.0%
Hispanic or Latino (of any race)	8,732	+/-98	289	+/-129	3.3%
PERCENT IMPUTED					
Disability status	5.6%	(X)	(X)	(X)	(X)
Hearing difficulty	3.5%	(X)	(X)	(X)	(X)
Vision difficulty	4.0%	(X)	(X)	(X)	(X)
Cognitive difficulty	4.2%	(X)	(X)	(X)	(X)
Ambulatory difficulty	4.2%	(X)	(X)	(X)	(X)
Self-care difficulty	4.2%	(X)	(X)	(X)	(X)
Independent living difficulty	4.2%	(X)	(X)	(X)	(X)

Subject	Houston County, Georgia
	Percent with a disability
	Margin of Error
Total civilian noninstitutionalized population	+/-0.6
Population under 5 years	+/-0.5
With a hearing difficulty	+/-0.5
With a vision difficulty	+/-0.3
Population 5 to 17 years	+/-1.2
With a hearing difficulty	+/-0.3
With a vision difficulty	+/-0.7
With a cognitive difficulty	+/-0.8
With an ambulatory difficulty	+/-0.2
With a self-care difficulty	+/-0.5
Population 18 to 64 years	+/-0.8
With a hearing difficulty	+/-0.3
With a vision difficulty	+/-0.3
With a cognitive difficulty	+/-0.5
With an ambulatory difficulty	+/-0.6
With a self-care difficulty	+/-0.4
With an independent living difficulty	+/-0.5
Population 65 years and over	+/-3.4
With a hearing difficulty	+/-2.4
With a vision difficulty	+/-1.5
With a cognitive difficulty	+/-2.0
With an ambulatory difficulty	+/-3.1
With a self-care difficulty	+/-1.6
With an independent living difficulty	+/-2.4
SEX	
Male	+/-1.0
Female	+/-0.8
RACE AND HISPANIC OR LATINO ORIGIN	
One Race	+/-0.6
White alone	+/-0.9
Black or African American alone	+/-1.3
American Indian and Alaska Native alone	+/-21.7
Asian alone	+/-1.6
Native Hawaiian and Other Pacific Islander alone	+/-18.7
Some other race alone	+/-1.7
Two or more races	+/-4.2
White alone, not Hispanic or Latino	+/-1.0
Hispanic or Latino (of any race)	+/-1.5
PERCENT IMPUTED	
Disability status	(X)
Hearing difficulty	(X)
Vision difficulty	(X)
Cognitive difficulty	(X)
Ambulatory difficulty	(X)
Self-care difficulty	(X)
Independent living difficulty	(X)

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The Census Bureau introduced a new set of disability questions in the 2008 ACS questionnaire. Accordingly, comparisons of disability data from 2008 or later with data from prior years are not recommended. For more information on these questions and their evaluation in the 2006 ACS Content Test, see the Evaluation Report Covering Disability.

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ARIZON  
NEW MEXICO

OKLAHOMA

ARKANSAS

TENNESSEE

NORTH CAROLINA

SOUTH CAROLINA

B02001

RACE

Universe: Total population

2009-2013 American Community Survey 5-Year Estimates

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	Houston County, Georgia	
	Estimate	Margin of Error
Total:	143,205	*****
White alone	89,838	+/-656
Black or African American alone	41,605	+/-494
American Indian and Alaska Native alone	164	+/-89
Asian alone	3,640	+/-293
Native Hawaiian and Other Pacific Islander alone	71	+/-83
Some other race alone	4,043	+/-696
Two or more races:	3,844	+/-650
Two races including Some other race	371	+/-188
Two races excluding Some other race, and three or more races	3,473	+/-573

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Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

#### Explanation of Symbols:

1. An '\*\*\*' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '\*\*\*' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-

ended distribution. A statistical test is not appropriate.

6. An '\*\*\*\*\*' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.



B03002

HISPANIC OR LATINO ORIGIN BY RACE

Universe: Total population

2009-2013 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Houston County, Georgia	
	Estimate	Margin of Error
Total:	143,205	*****
Not Hispanic or Latino:	134,271	*****
White alone	85,634	+/-271
Black or African American alone	41,278	+/-462
American Indian and Alaska Native alone	137	+/-82
Asian alone	3,623	+/-286
Native Hawaiian and Other Pacific Islander alone	71	+/-83
Some other race alone	395	+/-279
Two or more races:	3,133	+/-533
Two races including Some other race	31	+/-39
Two races excluding Some other race, and three or more races	3,102	+/-524
Hispanic or Latino:	8,934	*****
White alone	4,204	+/-589
Black or African American alone	327	+/-174
American Indian and Alaska Native alone	27	+/-42
Asian alone	17	+/-29
Native Hawaiian and Other Pacific Islander alone	0	+/-31
Some other race alone	3,648	+/-592
Two or more races:	711	+/-347
Two races including Some other race	340	+/-180
Two races excluding Some other race, and three or more races	371	+/-281

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2009-2013 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

1. An '\*\*\*' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
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8. An '(X)' means that the estimate is not applicable or not available.



## AREA LABOR PROFILE

# Houston

# County



Updated: Jun 2015

## Labor Force Activity - 2014

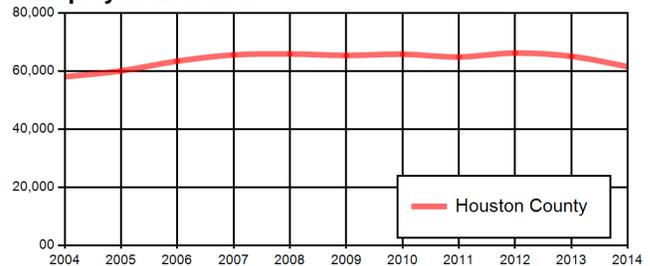
### 2014 ANNUAL AVERAGES

	Labor Force	Employed	Unemployed	Rate
Houston	66,049	61,502	4,547	6.9%
Bibb	69,480	63,881	5,599	8.1%
Bleckley	4,599	4,073	526	11.4%
Dooly	4,655	4,201	454	9.8%
Macon	4,618	4,048	570	12.3%
Peach	11,662	10,543	1,119	9.6%
Pulaski	4,134	3,804	330	8.0%
Twiggs	3,066	2,717	349	11.4%
<b>Houston Area</b>	<b>168,263</b>	<b>154,769</b>	<b>13,494</b>	<b>8.0%</b>
Georgia	4,756,708	4,414,343	342,365	7.2%
United States	155,922,000	146,305,000	9,617,000	6.2%

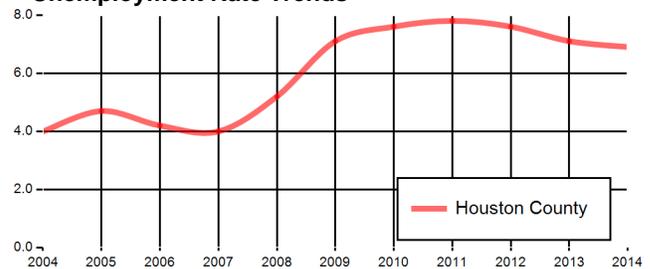
Note: This series reflects the latest information available. Labor Force includes residents of the county who are employed or actively seeking employment.

Source: Georgia Department of Labor; U.S. Bureau of Labor Statistics.

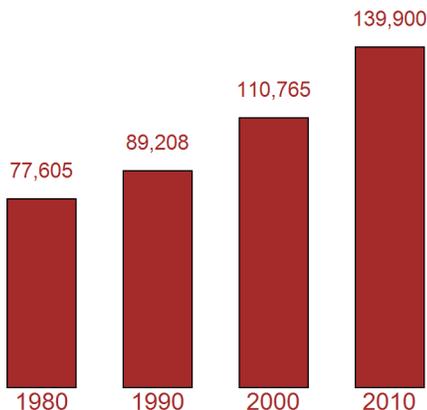
### Employment Trends



### Unemployment Rate Trends



### Population Estimates



### Population

	2010 Census	2014 Rank	2014 Estimate	% Change 2000-2014	2025 Projected*	% Change 2010-2025
<b>Houston</b>	<b>139,900</b>	<b>14</b>	<b>149,111</b>	<b>6.6</b>	<b>176,199</b>	<b>25.9</b>
City of Perry	13,839					
<b>Houston Area</b>	<b>386,896</b>		<b>390,516</b>	<b>0.9</b>	<b>448,172</b>	<b>15.8</b>
Georgia	9,687,653		10,097,343	4.2	13,426,590	38.6
United States	308,745,538		318,857,056	3.3	349,439,199	13.2

Source: Population Division, U.S. Census Bureau, \*Governor's Office of Planning and Budget.

MARK BUTLER - COMMISSIONER, GEORGIA DEPARTMENT OF LABOR

Equal Opportunity Employer/Program

Auxillary Aids and Services Available upon Request to Individuals with Disabilities

Workforce Statistics & Economic Research; E-mail: [Workforce\\_Info@dol.state.ga.us](mailto:Workforce_Info@dol.state.ga.us) Phone: (404) 232-3875

# Industry Mix - annual averages of 2014

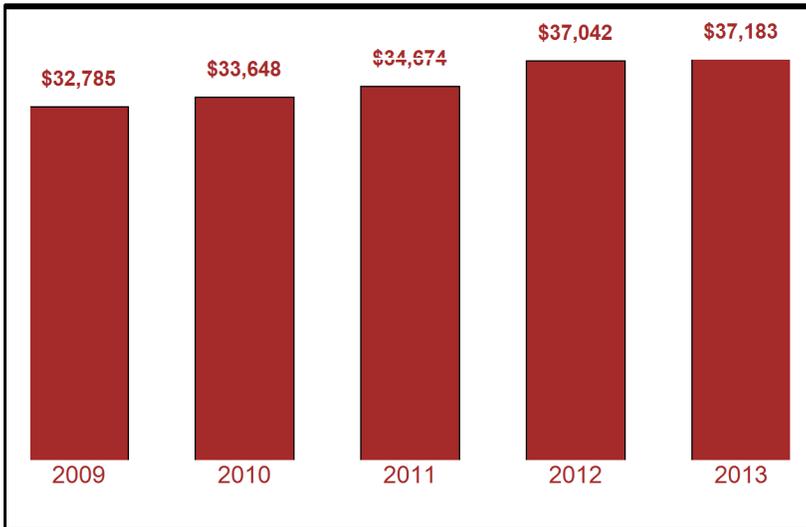
INDUSTRY	Houston				Houston Area			
	NUMBER OF FIRMS	EMPLOYMENT		WEEKLY WAGE	NUMBER OF FIRMS	EMPLOYMENT		WEEKLY WAGE
		NUMBER	PERCENT			NUMBER	PERCENT	
<b>Goods-Producing</b>	<b>316</b>	<b>5,854</b>	<b>10.4</b>	<b>887</b>	<b>984</b>	<b>18,607</b>	<b>11.7</b>	<b>927</b>
Agriculture, Forestry, Fishing and Hunting	19	71	0.1	678	109	1,073	0.7	649
Mining, Quarrying, and Oil and Gas Extraction	1	*	*	*	5	215	0.1	1,377
Construction	213	1,062	1.9	862	588	3,636	2.3	816
Manufacturing	83	4,713	8.4	896	282	13,683	8.6	972
Food	9	3,289	5.8	757	24	4,355	2.7	719
Textile Product Mills	2	*	*	*	8	53	0.0	478
Wood Product	3	*	*	*	20	451	0.3	1,169
Paper	1	*	*	*	11	1,455	0.9	1,340
Printing and Related Support Activities	5	8	0.0	346	20	169	0.1	645
Chemical	6	136	0.2	732	20	434	0.3	862
Plastics and Rubber Products	4	178	0.3	878	10	319	0.2	971
Nonmetallic Mineral Product	8	472	0.8	1,272	25	1,318	0.8	1,095
Fabricated Metal Product	4	*	*	*	38	842	0.5	874
Machinery	5	*	*	*	16	418	0.3	911
Computer and Electronic Product	2	*	*	*	3	*	*	*
Electrical Equipment, Appliance, and Component	6	93	0.2	568	8	212	0.1	844
Transportation Equipment	17	*	*	*	26	2,453	1.5	1,296
Furniture and Related Product	2	*	*	*	17	84	0.1	582
Miscellaneous	9	41	0.1	538	28	737	0.5	895
Primary Metal	0	0	0.0	0	1	*	*	*
Beverage and Tobacco Product	0	0	0.0	0	1	*	*	*
Textile Mills	0	0	0.0	0	2	*	*	*
Apparel	0	0	0.0	0	4	*	*	*
<b>Service-Providing</b>	<b>2,164</b>	<b>26,179</b>	<b>46.5</b>	<b>606</b>	<b>7,306</b>	<b>100,516</b>	<b>63.3</b>	<b>684</b>
Utilities	7	222	0.4	1,144	17	532	0.3	1,386
Wholesale Trade	68	556	1.0	993	348	3,667	2.3	948
Retail Trade	459	6,544	11.6	463	1,529	21,405	13.5	458
Transportation and Warehousing	42	763	1.4	1,041	180	3,457	2.2	777
Information	25	255	0.5	888	106	1,573	1.0	972
Finance and Insurance	139	1,023	1.8	832	505	8,999	5.7	921
Real Estate and Rental and Leasing	113	443	0.8	568	352	1,949	1.2	672
Professional, Scientific, and Technical Services	335	3,075	5.5	1,198	826	6,427	4.0	1,161
Management of Companies and Enterprises	15	95	0.2	1,141	55	2,321	1.5	1,354
Administrative and Support and Waste Management and Remediation Services	120	1,350	2.4	627	414	6,580	4.1	494
Educational Services	22	438	0.8	909	79	2,870	1.8	858
Health Care and Social Assistance	321	3,979	7.1	679	995	21,168	13.3	867
Arts, Entertainment, and Recreation	35	483	0.9	276	88	961	0.6	329
Accommodation and Food Services	281	6,006	10.7	249	803	15,376	9.7	257
Other Services (except Public Administration)	182	946	1.7	576	695	2,922	1.8	594
<b>Unclassified - industry not assigned</b>	<b>117</b>	<b>121</b>	<b>0.2</b>	<b>759</b>	<b>314</b>	<b>312</b>	<b>0.2</b>	<b>768</b>
<b>Total - Private Sector</b>	<b>2,597</b>	<b>32,154</b>	<b>57.1</b>	<b>658</b>	<b>8,290</b>	<b>119,123</b>	<b>75.0</b>	<b>722</b>
<b>Total - Government</b>	<b>165</b>	<b>24,184</b>	<b>42.9</b>	<b>1,088</b>	<b>509</b>	<b>39,712</b>	<b>25.0</b>	<b>938</b>
Federal Government	48	14,945	26.5	1,320	121	*	*	*
State Government	33	1,070	1.9	626	134	5,466	3.4	662
Local Government	84	8,169	14.5	724	254	18,041	11.4	679
<b>ALL INDUSTRIES</b>	<b>2,762</b>	<b>56,337</b>	<b>100.0</b>	<b>843</b>	<b>8,799</b>	<b>158,835</b>	<b>100.0</b>	<b>776</b>
<b>ALL INDUSTRIES - Georgia</b>					<b>286,383</b>	<b>4,035,014</b>		<b>925</b>

Note: \*Denotes confidential data relating to individual employers and cannot be released. These data use the North American Industrial Classification System (NAICS) categories. Average weekly wage is derived by dividing gross payroll dollars paid to all employees - both hourly and salaried - by the average number of employees who had earnings; average earnings are then divided by the number of weeks in a reporting period to obtain weekly figures. Figures in other columns may not sum accurately due to rounding. All figures are annual averages of 2014.

Source: Georgia Department of Labor. These data represent jobs that are covered by unemployment insurance laws.

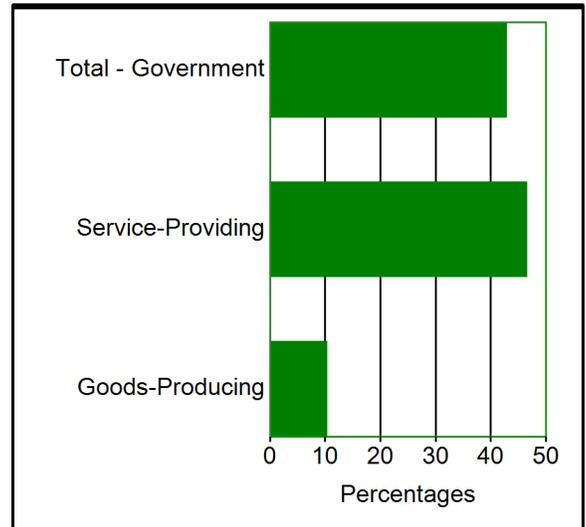
## Houston Per Capita Income

Source: U.S. Bureau of Economic Analysis



## Houston Industry Mix 2014

Source: See Industry Mix data on Page 2.



## Top Ten Largest Employers - 2014\*

### Houston

Anchor Glass Container Corp  
 Frito-Lay, Inc.  
 Graphic Packaging International, Inc.  
 Lighthouse Nursing Agency, Inc.  
 Lowe's Home Centers, Inc.  
 McDonalds  
 Perdue Farms Incorporated  
 Publix Super Markets, Inc.  
 The Kroger Company  
 Walmart

\*Note: Represents employment covered by unemployment insurance excluding all government agencies except correctional institutions, state and local hospitals, state colleges and universities. Data shown for the Third Quarter of 2014. Employers are listed alphabetically by area, not by the number of employees.

Source: Georgia Department of Labor

### Houston Area

Employer	COUNTY
Academy Sports & Outdoors	Bibb
Blue Bird Body Company, Inc.	Peach
Frito-Lay, Inc.	Houston
GEICO	Bibb
Georgia Health Holdings, Inc.	Bibb
Mercer University	Bibb
Perdue Farms Incorporated	Houston
The Kroger Company	Bibb
The Medical Center of Central Georgia, Inc.	Bibb
Walmart	Bibb

## Commuting Patterns

### EMPLOYED RESIDENTS OF

#### Houston

COUNTY WHERE EMPLOYED	NUMBER	PERCENT OF TOTAL
Houston, GA	39,954	75.3
Bibb, GA	8,570	16.2
Peach, GA	1,561	2.9
Dooly, GA	404	0.8
Macon, GA	277	0.5
Pulaski, GA	249	0.5
Fulton, GA	194	0.4
Washington, GA	170	0.3
Other	1,654	3.1
<b>Total Residents:</b>	<b>53,033</b>	<b>100.0</b>

### PERSONS WORKING IN

#### Houston

COUNTY OF RESIDENCE	NUMBER	PERCENT OF TOTAL
Houston, GA	39,954	79.7
Bibb, GA	3,703	7.4
Peach, GA	1,947	3.9
Crawford, GA	642	1.3
Bleckley, GA	596	1.2
Pulaski, GA	534	1.1
Jones, GA	357	0.7
Macon, GA	320	0.6
Other	2,095	4.2
<b>Total Residents:</b>	<b>50,148</b>	<b>100.0</b>

Note: Other category represents employment from U.S. counties only.

Source: U.S. Census Bureau - 2000 County-To-County Worker Flow Files.

# Education of the Labor Force

## Houston Area

	PERCENT DISTRIBUTION BY AGE					
	PERCENT OF TOTAL	18-24	25-34	35-44	45-64	65+
Elementary	5.4%	2.3%	4.3%	2.4%	4.5%	15.1%
Some High School	13.8%	20.5%	12.6%	9.8%	12.6%	16.3%
High School Grad/GED	32.4%	32.2%	26.7%	33.1%	33.7%	35.5%
Some College	22.8%	34.4%	25.7%	21.4%	20.6%	15.7%
College Grad 2 Yr	6.8%	4.2%	8.7%	9.3%	7.2%	3.6%
College Grad 4 Yr	12.2%	6.0%	16.1%	16.2%	12.5%	7.9%
Post Graduate Studies	6.6%	0.5%	5.9%	7.8%	9.0%	6.0%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Totals are based on the portion of the labor force between ages 18 - 65+. Some College category represents the percentage total of workers with either Some College with no degree or an Associate degree.

Source: U.S. Census Bureau - 2010 Decennial Census.

## High School Graduates - 2014

	PUBLIC SCHOOLS	PRIVATE SCHOOLS*	TOTAL
Bibb	1,038	--	1,038
Bleckley	22	--	22
Dooly	74	--	74
Houston	1,627	--	1,627
Macon	104	--	104
Peach	186	--	186
Pulaski	72	--	72
Twiggs	28	--	28
<b>Houston Area</b>	<b>3,151</b>	<b>--</b>	<b>3,151</b>



Note: Public schools include city as well as county schools systems.

\* Private schools data is not available for 2014 from Georgia Independent School Association.

Source: The Governor's Office of Student Achievement of Georgia.

# Colleges and Universities

## Houston Area

### Houston

Georgia Military College-Warner Robins Campus	
Embry-Riddle - Robins Campus	<a href="http://fusion.erau.edu/ec/www/centerinfo.cfm?code=b9">http://fusion.erau.edu/ec/www/centerinfo.cfm?code=b9</a>
Houston County Center (Satellite campus of Middle Georgia Technical College)	<a href="http://www.middlegatech.edu">www.middlegatech.edu</a>
Middle Georgia Technical College	<a href="http://www.middlegatech.edu">www.middlegatech.edu</a>

### Bibb

Central Georgia Technical College	<a href="http://www.centralgatech.edu">www.centralgatech.edu</a>
Mercer University	<a href="http://www.mercer.edu">www.mercer.edu</a>
Middle Georgia State College	<a href="http://www.mga.edu/">www.mga.edu/</a>
Miller-Motte Technical College-Macon	<a href="http://www.miller-motte.edu/campuses/georgia-campuses/macon-ga">www.miller-motte.edu/campuses/georgia-campuses/macon-ga</a>
Virginia College-Macon	<a href="http://www.vc.edu/campus/macon-georgia-college.cfm">www.vc.edu/campus/macon-georgia-college.cfm</a>
Wesleyan College	<a href="http://www.wesleyancollege.edu">www.wesleyancollege.edu</a>

### Twiggs

Twiggs County Center (Satellite campus of Central Georgia Technical College)	<a href="http://www.centralgatech.edu">www.centralgatech.edu</a>
--	--

### Peach

Fort Valley State University	<a href="http://www.fvsu.edu">www.fvsu.edu</a>
------------------------------	--

### Bleckley

Middle Georgia State College	<a href="http://www.mgc.edu">www.mgc.edu</a>
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### Pulaski

Sam Way, Sr. Learning Center (Satellite campus of Middle Georgia Technical College)	<a href="http://www.middlegatech.edu">www.middlegatech.edu</a>
---	--

Note: The colleges and universities listed include public and private institutions. This list is updated periodically as information becomes available.

Source: Integrated Postsecondary Education Data System (IPEDS).

Technical College Graduates Report: Data is not available at this time.

## Active Applicants - Georgia Department of Labor

	TOTAL	Mgt.	Bus. and Finance	Comp. and Math	Arch. and Eng.	Life and Soc. Svcs.	Comm. and Svcs	Legal	Ed. and Training	Arts and Design	Health Prac.	Health Support
Bibb	1,216	358	91	35	35	11	87	13	150	56	140	240
Bleckley	66	23	5	1	3	0	3	0	9	2	7	13
Dooly	62	18	4	2	1	2	3	0	6	3	5	18
Houston	1,225	331	150	93	72	18	72	6	135	74	123	151
Macon	67	16	4	6	6	1	3	0	12	0	7	12
Peach	214	65	13	8	8	7	11	1	38	16	16	31
Pulaski	33	12	2	2	0	1	1	0	5	2	3	5
Twiggs	45	11	1	1	2	0	1	1	8	4	5	11
Subtotal Area	2,928	834	270	148	127	40	181	21	363	157	306	481

## Active Applicants - Georgia Department of Labor (cont.)

	TOTAL	Protect. Svcs.	Food Prep.	Ground Cleaning	Personal Care	Sales	Office Support	Farm. and Forestry	Cons- truction	Installation Main.	Prod.	Trans. and Moving
Bibb	6,841	162	812	427	251	853	1,500	22	555	305	930	1,024
Bleckley	565	22	29	16	11	37	71	6	44	32	171	126
Dooly	735	20	65	35	16	80	101	42	41	25	181	129
Houston	4,877	139	469	192	138	611	1,223	30	317	364	748	646
Macon	781	29	56	39	24	53	95	46	55	40	185	159
Peach	1,203	26	158	48	32	160	201	33	76	63	231	175
Pulaski	313	12	22	11	7	28	63	6	23	8	87	46
Twiggs	378	8	15	21	4	27	60	4	43	19	87	90
Subtotal Area	15,693	418	1,626	789	483	1,849	3,314	189	1,154	856	2,620	2,395

Note: For current applicant data available for a specific occupation, contact the nearest Georgia Department of Labor Career Center.

Source: Georgia Department of Labor (active applicants as of May 2015).

## Georgia Department of Labor Location(s)

### Career Center(s)

96 Cohen Walker Drive

Warner Robins GA 31088

**Phone:** (478) 988 - 7130

**Fax:** (478) 988 - 7140

For copies of Area Labor Profiles, please visit our website at: [www.dol.state.ga.us](http://www.dol.state.ga.us) or contact Workforce Statistics & Economic Research, Georgia Department of Labor, 148 Andrew Young International Blvd N.E. Atlanta, GA. 30303-1751. Phone: 404-232-3875; Fax: 404-232-3888 or Email us at [workforce\\_info@dol.state.ga.us](mailto:workforce_info@dol.state.ga.us)

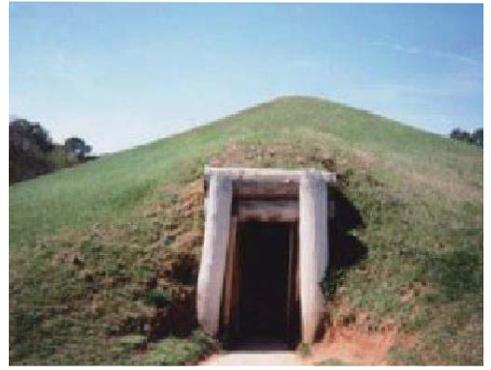
## **Appendix C**

### **Relevant Community Planning Documents**

- Middle Georgia Regionally Important Resources Plan Introduction
- Houston County/Cities of Centerville, Perry and Warner Robins Joint Solid Waste Management Plan Introduction
- Middle Georgia Regional Plan Executive Summary
- Houston County/Cities of Centerville, Perry and Warner Robins Summary of Service Delivery Arrangements for Emergency Management
- Middle Georgia State University Pre-Disaster Mitigation Plan

# Regionally Important Resources Plan

MIDDLE GEORGIA



Middle Georgia  
Regional Commission  
July 2009



# **REGIONALLY IMPORTANT RESOURCES PLAN MIDDLE GEORGIA**

**JULY 2009**

***Prepared by:***



**175 Emery Highway, Suite C  
Macon, Georgia 31217  
Phone: (478) 751.6160  
Fax: (478) 751-6517  
Website: [www.middlegeorgiarc.org](http://www.middlegeorgiarc.org)**

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Amy Saxton, Information Technology Specialist  
Sandi Glore, Office Manager**

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# INTRODUCTION

---

## **Purpose**

This plan is intended to serve as a guide for the protection and management of the many important natural, cultural, and historic resources found throughout the Middle Georgia region. These resources, hereinafter referred to as Regionally Important Resources (RIR), are those determined to be of value to the region and thus the state, and to be vulnerable to the effects of uncontrolled or incompatible development. Additionally, the plan hopes to lay a foundation for improved local, regional, and state level coordination in protecting and managing these important resources.

The plan has been prepared in accordance with the rules and procedures established by the Georgia Department of Community Affairs (effective July 1, 2009) for the identification of RIRs, the development of a plan for protection and management of the RIRs, and for review of activities potentially impacting the RIRs.

## **Overview**

The plan contains three (3) categories of RIRs: Heritage Resources, Parks and Forestry Resources, and Water Resources. Each individual resource is identified by category and reflects “snapshot” data, a description of the resource’s value to the region, and an explanation of its susceptibility to the impacts of new development. Each category concludes with appropriate development practices recommended for developers when designing new developments to be located near RIRs, and general policies and protection measures recommended for use by local governments in making decisions that affect RIRs.

One other important component of the plan is a Regionally Important Resources Map, which depicts the area’s important resources combined with a regional green infrastructure network.

**THE JOINT SOLID WASTE MANAGEMENT PLAN  
FOR HOUSTON COUNTY AND CITIES OF  
CENTERVILLE, PERRY, AND WARNER ROBINS**

**Prepared by**

**The Middle Georgia Regional Development Center**

**for**

**Houston County and Cities of Centerville, Perry, and Warner Robins**

**February 2007**

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# INTRODUCTION

In 1990, the Georgia General Assembly passed the Georgia Comprehensive Solid Waste Management Act. The intent of the General Assembly in developing and adopting this legislation was to establish a solid waste management planning process necessary to prevent environmental degradation, to manage resources and to effectively reduce and manage solid waste for the State and its residents.

The Act specifies that in order to receive a permit, grant or loan for a solid waste management facility, each city and county shall develop or be included in a comprehensive solid waste management plan. The Act requires that any request for a solid waste handling facility permit or funding for publicly owned and operated solid waste management facilities or equipment must be consistent with the solid waste management plans of all affected local governments. The most recent Solid Waste Management Plan for Houston County and the Cities of Centerville, Perry, and Warner Robins was adopted in February 1993.

To guide the preparation of local, multi-jurisdictional or regional plans, the Act mandated the preparation of Minimum Planning Standards and Procedures for Solid Waste Management. These Minimum Standards are adopted by the Georgia Department of Community Affairs Board; the most recent addition became effective on January 1, 2004. Based on these Minimum Standards, the Joint Solid Waste Management Plan for Houston County and the Cities of Centerville, Perry, and Warner Robins has the following components.

1. An **Overview of the Area** that includes a discussion of location, topography, population, and commercial and industrial activity in the area;
2. A **Waste Disposal Stream Analysis** that assesses who is generating the waste in the county and what they generate. This section of the report also includes the projected waste stream for the ten-year planning period.
3. Five Core Planning Elements that relate back to the Waste Disposal Stream Analysis; **Waste Reduction, Collection, Disposal, Land Limitation, and Public Education and Involvement**. Each of the elements must include an inventory and assessment and a list of needs and goals. For the Collection and Disposal Elements, a contingency strategy in the event of disruption to the primary option must be identified. The contingency strategy must include an alternative collection/disposal option on an interim basis and the estimated time to bring the contingency option on line. The Land Limitation Element must include a procedure the local governments will follow to determine if a proposed facility, public or private, is consistent with the plan.
4. A **Disaster Debris Management Plan** that specifies what procedures the local governments will follow for the collection and disposal of significant volumes of waste and/or special wastes resulting from any type of disaster, encouraging waste reduction (recycling) of such waste and public notification of the programs established to handle waste generated by a disaster.

5. After all the elements have been inventoried and assessed and the needs and goals have been identified, the Plan must identify an **Implementation Strategy** that includes specific actions that will be taken over the ten-year planning period to address the needs and goals expressed in the planning elements. The Strategy will consist of a table that lists the names of all jurisdictions included in the Plan, the activities, the year or years the activities are covering, the party or parties responsible for managing the activities, the estimated cost of the activities, and the funding source. The first five years of the Implementation Strategy will serve as the first Short-Term Work Program, while the second five-year period will be updated in accordance with the planning schedule established and revised from time to time by the Georgia Department of Community Affairs.

# Middle Georgia Regional Plan

2011-2031



# Regional Assessment

# Middle Georgia Regional Plan 2011-2031

## Regional Assessment

Prepared by:



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# Executive Summary

## Purpose

A successful regional planning strategy begins with preparation, research, and a wide-ranging objective evaluation of existing conditions. This involves accurately identifying and analyzing current regional assets, resources, and opportunities. A comprehensive inventory of current conditions allows regional stakeholders and decision makers to accurately evaluate the region's strengths and weaknesses and, in turn, effectively plan for its future.

The Regional Assessment is intended to serve as a factual and conceptual foundation upon which a Regional Agenda, or "road map," for the region's future is developed. The Regional Assessment involved the collection and analysis of relevant data and information related to a series of regional planning elements. These elements include population, economic development, housing, community facilities and services, cultural and historic resources, intergovernmental coordination, and transportation. This report reflects the results of that analysis and is intended to be used as a guide by regional stakeholders and decision makers during the development of the Regional Agenda.

## Overview

The Regional Assessment contains distinct elements that reflect on current conditions throughout the region, specifically: an analysis of supporting data and information accompanied by potential issues and opportunities that may be applicable for the region; an analysis of regional development patterns, which includes a projected development patterns map and identification of areas requiring special attention; and an evaluation of current policies, practices, and development patterns in the region for consistency with Quality Community Objectives.

A number of relevant Issues and Opportunities were identified by Regional Commission staff resulting from a comprehensive analysis of available data as well as a review of existing plans and reports. Specific issues and opportunities facing the region were identified in the areas of population, economic development, housing, transportation, community facilities and services, natural, cultural and historic resources, intergovernmental coordination, and land use and development.

These issues and opportunities will be further revised and enhanced during the stakeholder involvement portion of the planning process. A final list of regional issues and opportunities will be included in the Regional Agenda along with a corresponding list of strategies for addressing each.

The Analysis of Regional Development Patterns section attempts to examine past development characteristics, current trends, existing regulations and other factors which may impact future development patterns in the region. The section also contains a Projected Development Patterns Map designed to illustrate four distinct land use categories. These include conservation areas, or areas identified for potential preservation; rural areas not anticipated to experience urbanization; developed areas where urbanization currently exists; and developing areas which are likely to soon become urbanized.

Areas Requiring Special Attention are those geographic areas of the region with unique and/or challenging issues in relation to current and future development. These include areas identified as regionally important resources in the Middle Georgia Regionally Important Resources (RIR) Plan; areas where significant natural or cultural resources are likely to be impacted by development; areas where rapid development is likely to occur; areas in need of redevelopment; areas with significant infill opportunities; and areas of significant disinvestment, i.e. levels of poverty and/or unemployment substantially higher than average.

The Analysis of Consistency with Quality Community Objectives provides a broad overview of how the region is positioned in regards to meeting the Georgia Department of Community Affairs' (DCA) Quality Community Objectives. The Quality Community Objectives are a list of desirable objectives to which communities should strive to attain greater levels of sustainable quality growth. The analysis is performed through the use of an assessment tool, with the results used to identify additional issues and opportunities.

Finally, the Supporting Analysis of Data and Information section provides a descriptive narrative, over a 20-year planning time period, for each of the regional planning components (i.e. population, economic development, housing, transportation, community facilities and services, natural and cultural resources, and intergovernmental coordination) resulting from an analysis of related information and data. The information and data comes from a variety of sources and is depicted in a series of tables and charts located in the Appendix.

Additionally, the results of the analysis were used to verify the potential issues and opportunities for the region, as well as to help identify any significant regional trends and needed modifications to the Projected Development Patterns Map.

### *The Planning Process*

The Middle Georgia Regional Commission initiated work on the Middle Georgia Regional Assessment beginning in July 2009. The Regional Assessment was prepared in accordance with the Standards and Procedures for Regional Planning (Chapter 110-12-6 – effective July 1, 2009) established by the Georgia Department of Community Affairs.

The Georgia Planning Act of 1989 requires that each local government prepare, adopt, and maintain a comprehensive plan that meets or exceeds the State's rules and procedures for local planning. It is important to note that local comprehensive plans from the 11 Middle Georgia counties served as a valuable resource in the preparation of the Regional Assessment.

The most current versions of the following locally adopted comprehensive plans were used in the preparation of the Middle Georgia Regional Assessment:

- Joint Comprehensive Plan for Baldwin County and the City of Milledgeville;
- Joint Comprehensive Plan for Bibb County and the City of Macon;
- Comprehensive Plan for the Town of Payne City;
- Joint Comprehensive Plan for Crawford County and the City of Roberta;
- Joint Comprehensive Plan for Houston County and the Cities of Centerville, Perry, and Warner Robins;
- Joint Comprehensive Plan for Jones County and the City of Gray;
- Joint Comprehensive Plan for Monroe County and the Cities of Culloden and Forsyth;
- Joint Comprehensive Plan for Peach County and the Cities of Byron and Fort Valley;
- Joint Comprehensive Plan for Pulaski County and the City of Hawkinsville;
- Joint Comprehensive Plan for Putnam County and the City of Eatonton;
- Joint Comprehensive Plan for Twiggs County and the Cities of Danville and Jeffersonville;



- Joint Comprehensive Plan for Wilkinson County and the Cities of Allentown, Gordon, Irwinton, Ivey, McIntyre, and Toombsboro.

In January 2010, the Council of the Middle Georgia Regional Commission approved the transmittal of the Middle Georgia Regional Assessment to the Georgia Department of Community Affairs for review of the Assessment's adequacy at addressing all required components and identifying potential issues and opportunities facing the region. Additionally, DCA notified all interested parties of the availability of the Regional Assessment for review and comment.

In March 2010, the Department of Community Affairs issued a Report of Findings and Recommendations from its review of the Middle Georgia Regional Assessment. Additionally, comments received during the interested parties review period were also provided to the Regional Commission for consideration.

All necessary modifications were made to the Regional Assessment and it was re-submitted to DCA in June 2010. Final DCA approval was received in January 2011.

### *Conclusion*

As stated previously, the purpose and intent of the Regional Assessment is to identify where the region stands today, and to provide a fact-based foundation upon which a course for the region's future can be created.

The Middle Georgia Regional Assessment is readily available for public information. It can be viewed on the Middle Georgia Regional Commission's website at [www.middlegeorgiarc.org](http://www.middlegeorgiarc.org), or by contacting or visiting the Middle Georgia Regional Commission at 175 Emery Highway, Suite C, Macon, GA. 31217.





**SERVICE DELIVERY STRATEGY**  
**SUMMARY OF SERVICE DELIVERY ARRANGEMENTS    PAGE 2**

---

**Instructions:**

**Make copies of this form and complete one for each service listed on page 1, Section III.** Use exactly the same service names listed on page 1. Answer each question below, attaching additional pages as necessary. If the contact person for this service (listed at the bottom of the page) changes, this should be reported to the Department of Community Affairs.

---

**County:** \_\_\_\_\_ **Service:** \_\_\_\_\_

1. Check the box that best describes the agreed upon delivery arrangement for this service:

Service will be provided countywide (i.e., including all cities and unincorporated areas) by a single service provider. (If this box is checked, identify the government, authority or organization providing the service.): \_\_\_\_\_

Service will be provided only in the unincorporated portion of the county by a single service provider. (If this box is checked, identify the government, authority or organization providing the service.): \_\_\_\_\_

One or more cities will provide this service only within their incorporated boundaries, and the service will not be provided in unincorporated areas. (If this box is checked, identify the government(s), authority or organization providing the service: \_\_\_\_\_

One or more cities will provide this service only within their incorporated boundaries, and the county will provide the service in unincorporated areas. (If this box is checked, identify the government(s), authority or organization providing the service.): \_\_\_\_\_

Other (If this box is checked, **attach a legible map delineating the service area of each service provider**, and identify the government, authority, or other organization that will provide service within each service area.): \_\_\_\_\_

2. In developing the strategy, were overlapping service areas, unnecessary competition and/or duplication of this service identified?

Yes  No

If these conditions will continue under the strategy, **attach an explanation for continuing the arrangement** (i.e., overlapping but higher levels of service (See O.C.G.A. 36-70-24(1)), overriding benefits of the duplication, or reasons that overlapping service areas or competition cannot be eliminated).

If these conditions will be eliminated under the strategy, **attach an implementation schedule** listing each step or action that will be taken to eliminate them, the responsible party and the agreed upon deadline for completing it.

3. List each government or authority that will help to pay for this service and indicate how the service will be funded (e.g., enterprise funds, user fees, general funds, special service district revenues, hotel/motel taxes, franchise taxes, impact fees, bonded indebtedness, etc.).

<i>Local Government or Authority:</i>	<i>Funding Method:</i>

4. How will the strategy change the previous arrangements for providing and/or funding this service within the county?

5. List any formal service delivery agreements or intergovernmental contracts that will be used to implement the strategy for this service:

<i>Agreement Name:</i>	<i>Contracting Parties:</i>	<i>Effective and Ending Dates:</i>

6. What other mechanisms (if any) will be used to implement the strategy for this service (e.g., ordinances, resolutions, local acts of the General Assembly, rate or fee changes, etc.), and when will they take effect?

7. Person completing form: \_\_\_\_\_  
 Phone number: \_\_\_\_\_ Date completed: \_\_\_\_\_

8. Is this the person who should be contacted by state agencies when evaluating whether proposed local government projects are consistent with the service delivery strategy?  Yes  No

If not, provide designated contact person(s) and phone number(s) below:

\_\_\_\_\_

# MACON STATE COLLEGE PRE-DISASTER HAZARD MITIGATION PLAN

## CHAPTER 1 – EXECUTIVE SUMMARY

- A. This Hazard Mitigation Plan is the result of the Board of Regents’ Disaster Resistant University process. The plan will inventory critical facilities (Appendix A), identify hazards, profile the historical nature of hazards in our area, assess the vulnerability of our assets, and provide steps to mitigate possible damage to Macon State College faculty, staff, students, and visitors as well as the physical College facilities. This plan will meet the requirements for the Disaster Mitigation Act of 2000.

Macon State College has campuses located in Bibb and Houston Counties. Thus, both the Houston County Pre-Disaster Mitigation Plan and well as the Bibb County Multi-Jurisdictional Hazard Mitigation Plan were considered. Information in the Macon State Pre-Disaster Hazard Mitigation Plan is based on research into the Plans from these two counties.

- B. A Hazard, Risk and Vulnerability assessment was completed by consideration of the following:

*Inventorying Critical Facilities:* A list of facilities located on the Macon and Warner Robins campuses has been compiled, and is shown as Appendix A.

*Hazard Identification:* Based on the Houston and Bibb County Plans, considering maps and historical data, five major natural hazard events were identified - Flooding, Tornadoes, Winter Storms, Lightning, and Thunderstorm Winds. A Technological Hazard, Risk and Vulnerability Assessment was also completed, and one hazard event was identified – Hazardous Material Spill.

Both the Houston and Bibb County Plans included Drought as a potential hazard due to the agricultural and forested areas of the counties, with wildfires being of paramount concern. This hazard was not included in the Macon State College Pre-Disaster Hazard Mitigation Plan, as there are no agricultural aspects to the College, and the chance of wildfires on campus is remote.

*Profiling Hazard Events:* The history, causes and characteristics of each hazard is profiled in Chapters 2 and 3.

*Vulnerability Assessment:* Potential natural and man-made disasters were considered and compared to the critical facilities on the MSC Campuses.

## **Resolution and Proclamation**

Whereas the Board of Regents, through its Disaster Resistant Universities Program, requires that Macon State College adopt a Pre-Disaster Hazard Mitigation Plan, so that the College will be considered for financial assistance in case of a natural or technological hazard;

Whereas Macon State College has written a Pre-Disaster Hazard Mitigation Plan, which has been approved by the Pre-Disaster Hazard Mitigation Planning Committee comprised of faculty, staff and student representatives;

Whereas the Macon State College Pre-Disaster Hazard Mitigation Plan has been approved by the Georgia Emergency Management Agency (GEMA);

Whereas the Macon State College Pre-Disaster Hazard Mitigation Plan has been approved by Macon State College as an effective means for identifying potential natural and man-made disasters and providing appropriate mitigation plans for each of these threats;

---

David A. Bell, President  
Macon State College

---

Date

## CHAPTER 2 – MACON STATE COLLEGE NATURAL HAZARD, RISK AND VULNERABILITY (HRV) SUMMARY

The Bibb County Pre-Disaster Mitigation Planning Committee and the Houston County Pre-Disaster Mitigation Planning Committee initially identified all natural hazards that could affect Bibb and Houston Counties. They then narrowed the list of hazards to six natural hazards that are the most likely to impact their respective counties. Tornadoes, thunderstorms, lightning and winter storms are all potential hazards to the Macon State College communities in Bibb and Houston Counties. Flooding, on the other hand, does not pose an immediate risk to either campus as no facilities are located in the flood plain. However, mitigation plans have been made for flooding in case of unforeseen situations. Drought is not considered to be a risk for the Macon State College campuses, as there is no agricultural aspect to the college, and the risk of wildfires on campus is remote. Each of the other five potential hazards is addressed individually, with relevant supporting data.

### SECTION I - FLOODING

- A. **Hazard Identification.** Many variables can contribute to an area's susceptibility to flooding. Topography, soil type, rainfall intensity and duration, drainage, proximity to streams, lakes and other bodies of water may each determine if an area will flood. Flash flooding may occur when large amounts of rain fall in a short period of time. Even a small amount of rain could cause flooding if the soil is already saturated from previous storms. Even the development of land resulting in more are of impermeable surfaces such as roads, driveways and parking lots can increase the likelihood of flooding. The Pre-Disaster Mitigation Planning Committees in Bibb County and Houston County examined historical data from the National Climatic Data Center, past newspaper articles, and local Emergency Operations Plans to research the effects of flooding in Bibb and Houston Counties.
- B. **Hazard Profile.** In 1994, Tropical Storm Alberto wreaked havoc on the mid-state area, dumping 14 inches of rain in only a few hours. The overflow of the Ocmulgee River in downtown Macon in conjunction with rising waters from rivers, streams and lakes throughout Bibb County were the causes of damages, while Houston County suffered to a lesser degree from rising waters in streams, rivers and lakes. Total dollar value of damages paid by GEMA/FEMA as a result of the ensuing flood was in excess of \$190 million in Bibb County and \$5 million in Houston County.

Flooding in Bibb County is a somewhat common occurrence, albeit not to the level of the 1994 flood. The Bibb County Committee collected fifty-three years of data to determine hazard frequency, with no flooding events being documented for the first forty-three years. However, ten flood events have occurred within the past ten years, with three of these events causing damages of more than \$400,000. These events are typically flash floods caused by a heavy rainstorm producing excessive water to a culvert or dry streambed. The Committee inferred that "a flood event causing more than \$400,000 in damage is likely to occur every three to four years in Bibb County."

The 1994 flood notwithstanding, flooding in Houston County is an infrequent event. The Houston County Committee collected fifty years of data to determine hazard frequency, and found no flooding in the first forty years, and four flooding events over the last ten years. According to their findings, only two of these four events caused damages of more than \$50,000. The Committee concluded that it was reasonable to infer that “a flood event causing more than \$50,000 in damages is likely to occur every five years” in Houston County.

- C. **Assets Exposed to Hazard.** Several facilities, bridges and dams were identified by the Bibb County Pre-Disaster Mitigation Planning Committee as being potential flood hazard areas. Additionally, the proximity of the Ocmulgee River, Lake Tobesofkee, and Lake Wildwood to the major highways in Bibb County (I-75, I-16, US 80 and Georgia Highway 74) was discussed. Six high hazard dams were identified in Bibb County, with the Fenley Ryther Dam being identified as “the most dangerous area for loss of life and disruption of daily commuting.” It was noted should the Fenley Ryther Dam fail, Eisenhower Parkway and Fulton Mill Road could “potentially be in danger of flooding.” Although no property on the Macon State College Campus is identified as a flood plain, and no buildings have been identified as a potential flood hazard area by the Committee, the proximity of the College to Eisenhower Parkway and Fulton Mill Road is cause for concern. However, it should be noted that even during the worst flooding in the history of Bibb County in 1994, the Macon State College Campus did not have any flooding or incur any loss.

The Houston County Pre-Disaster Mitigation Planning Committee examined all assets (particularly critical facilities) to determine the most vulnerable locations within the county. They determined that only two critical facilities that could be damaged due to flooding, and these assets are not located on or near the Macon State College Warner Robins Campus. None of the Warner Robins Campus facilities are located in a flood plain, and there are no nearby streams, rivers or other bodies of water. No flooding has occurred on the Macon State College campus in Warner Robins.

**Estimate of Potential Losses.** No facilities on the Macon State College campuses in Macon and Warner Robins have a history of flooding.

- D. **Land Use & Development Trends.** Macon State College does not build any facilities on flood prone areas. All construction adheres to the Georgia State Minimum Standard Codes (Uniform Codes Act) and the International Building Code (2000 edition). The minimum standards established by these codes provide reasonable protection to persons and property within structures that comply with the regulations for most natural hazards.
- E. **Multi-Jurisdictional Concerns.** The population at Macon State College is approximately 5500 on the Macon Campus and 2000 on the Warner Robins Campus. No floodplains flow through either campus and no flood damage has been experienced.
- F. **Hazard Summary.** Severe flooding, although a remote possibility in Houston County and an unlikely one in Bibb County, has the potential to impact persons and facilities on

both campuses. Macon State has recognized that flooding is a potential hazard and has identified specific goals, objectives and action items related to flooding. These suggested mitigation actions are found in Chapter 4, Section 1.

## SECTION II – TORNADOES

- A. **Hazard Identification.** A tornado is a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of 1 mile wide and 50 miles long. Tornadoes are among the most unpredictable and destructive of weather phenomena that may affect Bibb and Houston Counties. Tornado season in Georgia typically runs from March through August, although tornadoes may strike at any time of the year if weather conditions are present.
- B. **Hazard Profile.** The Pre-Disaster Mitigation Planning Committees in Bibb and Houston Counties researched tornado activity in their respective counties. As tornadoes strike in a random fashion, there is no real way to predict recurrence based on past history. However, when a tornado does strike, the damage potential is extremely high.

Bibb County has had twelve recorded tornadoes within the past fifty-three years, with only one tornado recorded in the last ten years. Trend analysis indicated that a tornado will touch down in Bibb County every 4.42 years, equating to a 22.64% chance in any given year.

Houston County has recorded sixteen tornadoes over the past fifty years, with no tornadoes recorded as touching down in the last ten years. The Committee concluded that based on past history, Houston County should be prepared for a tornado touch down every 3.13 years, which equates to a 32% chance each year.

- C. **Assets Exposed to Hazard.** Based on the random pattern of tornadoes, it is assumed that all facilities on the Macon and Warner Robins Campuses of Macon State College could be potentially damaged by a tornado strike.
- D. **Estimate of Potential Losses.** The path of a tornado is unpredictable. It may travel in a straight line, or it may hop from one facility to another, skipping some in between. Because there is no way to determine how a tornado would travel, it should be assumed that the more valuable the facility, the higher the potential for loss. The Bibb County plan specifies Macon State College as a vulnerable facility, based on the monetary value of the properties. The Houston County plan does not list the Warner Robins campus as a high probability target. All facilities on the Macon State College campuses are potentially at risk.

Macon State College Facilities Inventory is shown in Appendix A.

- E. **Land Use & Development Trends.** Bibb and Houston Counties are located in a wind zone III, with is associated with 200 mph wind speeds. As the counties currently has no

land use or development trends specifically related to tornadoes, building codes do not require that structures meet or exceed those wind speeds. All construction adheres to the Georgia State Minimum Standard Codes (Uniform Codes Act) and the International Building Code (2000 edition). The minimum standards established by these codes provide reasonable protection to persons and property within structures that comply with the regulations for most natural hazards.

- F. **Multi-Jurisdictional Concerns.** There are no residential facilities on the Macon State Colleges in Macon or Warner Robins. The population is approximately 5500 on the Macon Campus and 2000 on the Warner Robins Campus, although this population is present at various times, but not all at once.
- G. **Hazard Summary.** Tornadoes are a very real threat to Macon State College facilities. Should a tornado strike either campus, significant damage could occur. Specific mitigation actions related to tornadoes are identified in Chapter 4, Section II.

### **SECTION III – THUNDERSTORM WINDS**

- A. **Hazard Identification.** Thunderstorm winds are generally short in duration and involve straight-line winds and/or gusts of over 50 mph. They can cause power outages and significant property damage, including roof damage and downed trees, and pose a risk for injuries and loss of life.
- B. **Hazard Profile.** The Pre-Disaster Mitigation Planning Committees in Bibb and Houston Counties researched thunderstorm wind activity in their respective counties, and both Committees identified thunderstorm winds as being the most prevalent natural hazard. During the spring and summer months, both counties experience innumerable storms.

In Bibb County, there have been 129 thunderstorm wind events recorded in the past fifty-three years. Fifty-eight events have been recorded in the past ten years. The Committee concluded historical weather data indicates the chance for thunderstorm winds to impact Bibb County is 243.40% each year.

The data from the Houston County Committee shows there have been 118 thunderstorm wind events in the past fifty years. On average, two thunderstorms each year produce winds capable of inflicting significant damage.

- C. **Assets Exposed to Hazard.** Because of the frequency of thunderstorm winds in Bibb and Houston Counties, it is assumed that all facilities on the Macon and Warner Robins Campuses of Macon State College could be potentially damaged during a severe thunderstorm. Additionally, the grounds at the Macon Campus, with its rolling topography, stands of mature trees, and its status as a Botanical Garden, is particularly vulnerable to thunderstorm winds.
- D. **Estimate of Potential Losses.** All facilities at Macon State College Macon and Warner Robins campuses are vulnerable to damage from thunderstorm winds.

Macon State College Facilities Inventory is shown in Appendix A.

- E. **Land Use & Development Trends.** Bibb and Houston Counties are located in a wind zone III, with is associated with 200 mph wind speeds. As the counties currently has no land use or development trends specifically related to severe thunderstorms, building codes do not require that structures meet or exceed those wind speeds. All construction adheres to the Georgia State Minimum Standard Codes (Uniform Codes Act) and the International Building Code (2000 edition). The minimum standards established by these codes provide reasonable protection to persons and property within structures that comply with the regulations for most natural hazards.
- F. **Multi-Jurisdictional Concerns.** There are no residential facilities on the Macon State Colleges in Macon or Warner Robins. The population is approximately 5500 on the Macon Campus and 2000 on the Warner Robins Campus, although this population is present at various times, but not all at once.
- G. **Hazard Summary.** Severe thunderstorm winds are a very real threat to Macon State College facilities. Should a thunderstorm strike either campus, significant damage could occur. Specific mitigation actions related to thunderstorm winds are identified in Chapter 4, Section III.

#### SECTION IV – LIGHTNING

- A. **Hazard Identification.** By definition, all thunderstorms are accompanied by lightning. The electrical charge from lightning can potentially be as much as 100 million volts. Lightning strikes are most prevalent in the summer months.
- B. **Hazard Profile.** Lightning strikes may occur at any place and any time. The Pre-Disaster Mitigation Planning Committees in Bibb and Houston Counties researched lightning strikes in their respective counties by researching historical data from the National Climatic Data Center, The National Weather Center, and local newspapers. Both Committees indicated in their plans that “local knowledge” indicates many more strikes than those recorded by the above agencies.

Bibb County reports only five recorded lightning strikes within the past fifty-three years. Based on this, they concluded lightning could be expected to strike Bibb County every 10.60 years.

Houston County has recorded three incidents of lightning strikes within the past fifty years. Additionally, the Georgia Forestry Commission reported 28 fires have resulted from lightning strikes between 1998 and 2002. Utilizing all the data at their disposal, the Houston County Committee inferred that lightning could be expected to hit Houston County one ever .57 years, and would ignite either a structure or vegetation 1.75 times each year.

- C. **Assets Exposed to Hazard.** Based on the inherent unpredictability of lightning, it is assumed that all facilities on the Macon and Warner Robins Campuses of Macon State College could be potentially damaged by a lightning strike.
- D. **Estimate of Potential Losses.** Lightning strikes cannot be predicted or avoided. The most common damage from lightning is the destruction of electrical components and setting on fire the structure/vegetation that is hit. All facilities on Macon State College campuses are properly grounded to minimize the effect of a lightning strike.

Macon State College Facilities Inventory is shown in Appendix A.

- E. **Land Use & Development Trends.** Neither Bibb nor Houston Counties have land or development trends related to lightning.
- F. **Multi-Jurisdictional Concerns.** There are no residential facilities on the Macon State Colleges in Macon or Warner Robins. The population is approximately 5500 on the Macon Campus and 2000 on the Warner Robins Campus, although this population is present at various times, but not all at once.
- G. **Hazard Summary.** Lightning strikes are rare, but have a high degree of danger associated with them. Loss of electrical systems/building contents or fire damage is a real threat, should lightning strike campus facilities. Specific mitigation actions related to lightning strikes are identified in Chapter 4, Section IV.

## SECTION V – WINTER STORMS

- A. **Hazard Identification.** Winter storms bring the threat of snow, freezing rain and ice. A heavy accumulation of ice will down trees and power lines, resulting in loss of electricity, damages to structures and trees. Sidewalks, streets and highways become hazardous to pedestrians and motorists.
- B. **Hazard Profile.** Four winter storms have hit Bibb and Houston Counties in the last fifty years. Both Committees concluded it is reasonable to expect a winter storm to hit once each decade.
- C. **Assets Exposed to Hazard.** Winter storms typically cover a large area, thus it is assumed that all facilities on the Macon and Warner Robins Campuses of Macon State College could be potentially damaged should a winter storm occur.
- D. **Estimate of Potential Losses.** Potential losses at Macon State College Macon and Warner Robins campuses could include damage to building operation systems (piping, boilers) as a result of freezing water, damage to facilities from falling electrical lines or tree, as well as dangerous roads and sidewalks for motorists and pedestrians.

Macon State College Facilities Inventory is shown in Appendix A.

- E. **Land Use & Development Trends.** Neither Bibb nor Houston Counties have land or development trends related to winter storms.
- F. **Multi-Jurisdictional Concerns.** There are no residential facilities on the Macon State Colleges in Macon or Warner Robins. The population is approximately 5500 on the Macon Campus and 2000 on the Warner Robins Campus, although this population is present at various times, but not all at once.
- G. **Hazard Summary.** Winter storms are generally predictable events, with sufficient warning coming from The National Weather Service allowing time for preparation. Specific mitigation actions related to winter storms are identified in Chapter 4, Section V.

### **CHAPTER 3: MACON STATE COLLEGE TECHNOLOGICAL HAZARD, RISK AND VULNERABILITY (HRV) SUMMARY**

#### **SECTION I – HAZARDOUS MATERIAL SPILLS**

- A. **Hazard Identification.** Hazardous materials are substances that are harmful to the health and safety of people or property. Hazardous material spills come from one of two sources. Transportation spills occur when hazardous materials are being transported from one location to another. Fixed location spills may occur any place where hazardous materials are produced, stored, or used
- B. **Hazard Profile.** The Bibb County Pre-Disaster Mitigation Planning Committee reported that in the last eleven years there have been eighty-one recorded spills in Bibb County. Twenty-nine of the spills were transportation related, while fifty-one spills being fixed location spills. There was one reported radiological release. The county averages one fixed location spill every three months and one transportation-related spill every four to six months.

The Houston County Pre-Disaster Mitigation Planning Committee reviewed historic data from the Georgia Department of Natural Resources, and reported ninety-eight spills within a thirteen year period. Of these, only five were transportation spills.

- C. **Assets Exposed to Hazard.** Because of the proximity of the Macon campus to Interstate 475, transportation spills could cause a concern to Macon State College. Fixed location spills may occur in a laboratory inside the Jones Building, where all laboratory classes are held on the Macon Campus. Additionally, a fixed location spill may occur during hazardous waste removal.

The Warner Robins campus of Macon State College is located on one of the main roads in Warner Robins, Watson Boulevard. Watson Boulevard connects Interstate 75 to Georgia Highway 247 and the Warner Robins Air Force Base. Although there is a more direct route to the interstate from the base, it is possible that Watson Boulevard is utilized

to transport hazardous materials. Fixed location spills may occur in the Biology or Chemistry lab at the Warner Robins Campus, or during hazardous waste removal.

- D. **Estimate of Potential Losses.** There are no recorded instances of critical facilities or other property being damaged as a result of hazardous material spills in Bibb or Houston Counties.
- E. **Land Use & Development Trends.** Neither Bibb nor Houston Counties have land or development trends related to hazardous material spills.
- F. **Multi-Jurisdictional Concerns.** There are no residential facilities on the Macon State Colleges in Macon or Warner Robins. The population is approximately 5500 on the Macon Campus and 2000 on the Warner Robins Campus, although this population is present at various times, but not all at once.
- G. **Hazard Summary.** Hazardous material spills are a relatively common occurrence in Bibb and Houston Counties, but are rare on the Macon State College Campus. However, because of their potential for damage to persons and property as a result of a spill, mitigation actions have been identified in Chapter 5, Section I.

## CHAPTER 4 – NATURAL HAZARD MITIGATION GOALS & OBJECTIVES

### SECTION I – FLOODING

- A. **Mitigation Goal.** Minimize loss of life and property due to flooding at Macon State College Campuses in Macon and Warner Robins.
- B. **Objective:** To protect all MSC faculty, staff, students and visitors from the effects of flooding at Macon State College campuses.
- C. **Action Step:** Use a Registered Civil Engineer for any project on the campuses of Macon State College involving site grading and drainage planning. An example of a current standard is “For storm pipes 15” or larger, use Class III reinforced concrete or ductal iron (pressure class 350). Storm drain pipes 12” or smaller shall be schedule 40 PVC or ductal iron (pressure class 350).”

### SECTION II - TORNADOES:

- A. **Mitigation Goal:** Minimize loss of life due to tornadoes at Macon State College Campuses in Macon and Warner Robins.
- B. **Objective:** To protect all MSC faculty, staff, students and visitors from the effects of tornadoes through information, training, and education.
- C. **Action Step #1:** Bibb County EMA has an emergency siren notification system that can

be heard from all buildings on campus. MSC Emergency Coordinator will continue to train key personnel in all schools and departments regarding the MSC Tornado Alert Procedures.

**Action Step #2:** On the Warner Robins Campus, there is no emergency siren notification system. MSC has a procedure specific to the Warner Robins Campus, and we will continue to train key personnel in all schools and departments regarding the MSC Tornado Alert Procedures. These procedures involve monitoring of weather radios by security personnel, and evacuation locations, in case of a tornado.

### **SECTION III - THUNDERSTORM WINDS:**

- A. **Mitigation Goal:** Minimize loss of life and property due to thunderstorm winds at Macon State College Campuses in Macon and Warner Robins
- B. **Objective:** To protect all MSC faculty, staff, students, and visitors from the effects of thunderstorm winds.
- C. **Action Step:** MSC builds buildings to the BOR standards. In each building, there is a safe location in the event of damages from thunderstorm winds.

### **SECTION IV- LIGHTNING:**

- A. **Mitigation Goal:** Minimize loss of life and property due lightning at Macon State College Campuses in Macon and Warner Robins
- B. **Objective:** To protect all MSC faculty, staff, students, and visitors from the effects of lightning.
- C. **Action Step:** Protect facilities by using appropriate means, such as lightning rods for some buildings. Install appropriate lightning devices, including surge protection, on electrical systems. Most new buildings constructed on the Macon State College Campuses include lightning protection as an integral part of design.

### **SECTION V - WINTER STORMS:**

- A. **Mitigation Goal:** Minimize loss of life and property due to the effects of winter storms at Macon State College Campuses in Macon and Warner Robins
- B. **Objective:** To protect all MSC faculty, staff, students, and visitors from the effects of winter storms.
- C. **Action Step:** Through the “Snow, Ice or Flooding” section of the Emergency Action Plan, Macon State College has plans to close the campus in case of a winter storm, distributing information through the news media.

## **CHAPTER 5: TECHNOLOGICAL HAZARD MITIGATION GOALS & OBJECTIVES:**

- A. **Mitigation Goal:** Minimize loss of life due to the effects of hazardous waste spills.
- B. **Objective:** To protect all MSC faculty, staff, students, and visitors from the effects of hazardous wastes.
- C. **Action Step #1:** Maintain bi-annual chemical inventory as required by BOR.

**Action Step #2:** Follow standard procedures for training of students and personnel in handling hazardous materials.

**Action Step #3:** Utilize the services of a licensed material waste disposal company, following all regulations dealing with haz-mat disposal.

## **CHAPTER 6: EXECUTING THE PLAN**

### **A. CAMPUS IMPLEMENTATION ACTION PLAN**

The compilation of this plan was overseen by the Plant Operations Department. It will be approved by the MSC Pre-Disaster Mitigation Planning Committee, which is made up of the MSC Homeland Security & Safety Committee and student representatives. The plan will be posted online for review by all faculty and staff. When the plan is finalized, it will be submitted to GEMA. Upon approval, the plan will be signed by the College President and formally adopted by MSC.

### **B. MONITORING AND UPDATES**

The MSC Pre-Disaster Hazard Mitigation Plan will be updated annually. The MSC Pre-Disaster Mitigation Planning Committee will be responsible for updates and changes to this plan.

### **C. MULTIJURISDICTIONAL STRATEGY AND CONSIDERATIONS**

The Houston County and Bibb County Hazard Pre-Disaster Mitigation Plans consider county-wide issues, many of which do not apply to the MSC campuses in Macon and Warner Robins. The MSC Pre-Disaster Hazard Mitigation Planning Committee will request annual updates of the County Plans when updating the MSC Plan.

## **CHAPTER 7: CONCLUSION**

### **A. SUMMARY**

Upon studying the Houston County Pre-Disaster Mitigation Plan and the Bibb County Multi-Jurisdictional Hazard Mitigation Plan, Macon State College has gained a better understanding of the historical nature of natural disasters. The Macon State College Pre-Disaster Hazard Mitigation Plan uses the County information to develop a plan specific to the MSC Campuses in Macon and Warner Robins. The plan will be reviewed and

updated annually.

**B. REFERENCES**

1. GEMA Hazard Mitigation Division Presentation, January 30, 2007
2. Hazard Mitigation Plan, Bainbridge College
3. Houston County PDM Plan
4. Bibb County Multi-Jurisdictional Hazard Mitigation Plan

**APPENDIX A.**

<b>BUILDING NAME</b>	<b>BLDG SF</b>	<b>CURRENT VALUE/SF</b>	<b>CURRENT VALUE</b>	<b>PROPOSED VALUE/SF</b>	<b>PROPOSED TOTAL VALUE</b>
H/SS - ARTS COMPLEX/ THEATER	65,027	150	9,754,050.00	240	15,606,480.00
ADMINISTRATION BLDG	17,028	150	2,554,200.00	175	2,979,900.00
WRC ACADEMIC SVCS	23,778	150	3,566,700.00	175	4,161,150.00
WRC THOMAS HALL	24,481	150	3,672,150.00	175	4,284,175.00
STUDENT LIFE CENTER	75,494	240	18,118,560.00	240	18,118,560.00
STORAGE BLDG			142,500.00		142,500.00
SCIENCES ANNEX	21,381	150	3,207,150.00	175	3,741,675.00
PLANT OPERATIONS/ MECHANICAL	9,985	150	1,497,750.00	175	1,747,375.00
EDUCATION BUILDING	21,054	150	3,158,100.00	175	3,684,450.00
PHYSICAL EDUCATION	16,289	150	2,443,350.00	175	2,850,575.00
INFORMATION TECHNOLOGY	19,800	150	2,970,000.00	175	3,465,000.00
JONES BLDG	96,060	240	18,754,800.00	240	23,054,400.00
LEARNING SUPPORT	30,693	150	4,603,950.00	175	5,371,275.00
LIBRARY	59,026	240	14,166,240.00	240	14,166,240.00
EDUCATIONAL TECHNOLOGY	15,371	150	2,305,650.00	175	2,689,925.00
GYMNASIUM	18,841	150	2,826,150.00	175	3,297,175.00
<b>TOTALS</b>	<b>514,308</b>		<b>93,741,300.00</b>		<b>109,360,855.00</b>

## **Appendix D**

### **Planning Process Worksheets**

- GEMA Worksheet #1: Identify the Hazards
- GEMA Worksheet #2: Profile Hazard Events
- GEMA Worksheet #4: Evaluate Alternative Mitigation Actions
- Hazard Frequency Table
- Critical facility Data Collection Form

Date: December 12, 2015 What kinds of natural hazards can affect you? Houston County

**Task A. List the hazards that may occur.**

1. Research newspapers and other historical records
2. Review existing plans and reports.
3. Talk to the experts in your community, state, or region.
4. Gather information on Internet Websites.
5. Next to the hazard list below, put a check mark in the Task A boxes beside all hazards that may occur in your community or state.

**Task B. Focus on the most prevalent hazard in your community or state.**

1. Go to hazard Websites.
2. Locate your community or state on the Website map.
3. Determine whether you are in a high-risk area. Get more localized information if necessary.
4. Next to the hazard list below, put a check mark in the Task B boxes beside all hazards that post a significant threat.

**Task A**    **Task B**    Use this space to record information you find for each of the hazards you will be researching. Attach additional pages as necessary.

- Avalanche    \_\_\_    \_\_\_
- Costal Erosion**    \_\_\_    \_\_\_
- Costal Storm**    \_\_\_    \_\_\_
- Dam Failure**    \_\_\_    \_\_\_
- Drought    \_\_\_    \_\_\_
- Earthquake**    \_\_\_    \_\_\_
- Expansive Soils    \_\_\_    \_\_\_
- Extreme Heat    \_\_\_    \_\_\_
- Flood**    \_\_\_    \_\_\_
- Hailstorm    \_\_\_    \_\_\_
- Hurricane**    \_\_\_    \_\_\_
- Land Slide    \_\_\_    \_\_\_
- Severe Winter Storm    \_\_\_    \_\_\_
- Tornado**    \_\_\_    \_\_\_
- Tsunami**    \_\_\_    \_\_\_
- Volcano    \_\_\_    \_\_\_
- Wildfire**    \_\_\_    \_\_\_
- Windstorm    \_\_\_    \_\_\_
- Hazard Material    \_\_\_    \_\_\_
- Radiological    \_\_\_    \_\_\_
- Other \_\_\_\_\_    \_\_\_    \_\_\_
- Other \_\_\_\_\_    \_\_\_    \_\_\_
- Other \_\_\_\_\_    \_\_\_    \_\_\_

Hazard or Event Description (Type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
See attached Addendum			

Note: **Bolded** hazards are addressed in this How-to Guide.

## GEMA Worksheet #1 Addendum

*Use this space to record information you find for each of the hazards you will be researching. Attach additional pages as necessary*

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
04/30/53	Tornado, F4, 300 injuries, 18 deaths, \$25000000 property damage, \$0 crop damage	NCDC	No	N/A
03/13/54	Tornado, F1, 5 injuries, 1 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
07/13/56	Tornado, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/17/59	Tornado, F1, 0 injuries, 0 deaths, \$250000 property damage, \$0 crop damage	NCDC	No	N/A
03/31/61	Tornado, F1, 0 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
08/03/62	Tstm Wind, 56 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/20/63	Tornado, F2, 1 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
08/01/65	Tornado, F1, 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
07/28/66	Tornado, F1, 2 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
08/10/67	Tornado, F0, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/28/68	Tornado, F1, 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
11/18/68	Tornado, F1, 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
06/28/69	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/29/69	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
07/17/69	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/26/70	Tornado, F1, 0 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
01/15/71	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/23/71	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/08/71	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/12/71	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/19/71	Tornado, F2, 0 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
01/13/72	Tornado, F1, 0 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
03/02/72	Tstm Wind, 51 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/27/72	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/01/73	Winter Storm, 14", 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/18/74	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/24/75	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/26/75	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/16/76	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
07/13/76	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/22/77	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/30/77	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/30/77	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/25/78	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/25/78	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/13/79	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/21/80	Tornado, F1, 2 injuries, 0 deaths, \$2500000 property damage, \$0 crop damage	NCDC	No	N/A
03/21/80	Tornado, F1, 0 injuries, 0 deaths, \$250000 property damage, \$0 crop damage	NCDC	No	N/A
04/12/80	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/06/80	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/05/81	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/04/82	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/21/82	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/03/82	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
07/04/82	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/28/83	Tstm Wind, 52 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/03/84	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/14/84	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/21/84	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/05/85	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/11/85	Tstm Wind, 59 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/11/85	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/27/86	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/04/86	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/18/87	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/10/87	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/24/88	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/26/88	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/01/88	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
02/28/89	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/04/89	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/04/89	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/19/89	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/22/89	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/12/89	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/12/89	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/10/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/10/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/16/90	Tstm Wind, 55 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/10/90	Tornado, F1, 0 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A
04/10/90	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/28/90	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/28/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/04/90	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/08/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/02/90	Hail, 1.50 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/08/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/10/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/10/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/08/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/23/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/10/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
10/04/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
10/04/90	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
11/07/90	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/16/90	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/11/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/03/91	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/29/91	Hail, 1.88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

<b>Date</b>	<b>Hazard or Event Description</b> (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	<b>Source of Information</b>	<b>Map Available for this Hazard?</b>	<b>Scale of Map</b>
04/09/91	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/26/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
04/28/91	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/05/91	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/05/91	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/01/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/05/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/10/91	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/29/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
08/06/91	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/13/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
08/16/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
09/06/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
10/23/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/09/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

<b>Date</b>	<b>Hazard or Event Description</b> (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	<b>Source of Information</b>	<b>Map Available for this Hazard?</b>	<b>Scale of Map</b>
11/18/91	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/09/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/21/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/24/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/06/92	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/06/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/12/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/20/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/20/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/26/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/05/92	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
08/09/92	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/03/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/18/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/28/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
12/04/92	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
02/09/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/26/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/31/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/31/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/31/93	Tstm Wind, N/A, 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
06/04/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/30/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/08/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/19/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
08/07/93	Tstm Wind, N/A, 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
11/04/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
12/18/93	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/29/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
02/12/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

<b>Date</b>	<b>Hazard or Event Description</b> (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	<b>Source of Information</b>	<b>Map Available for this Hazard?</b>	<b>Scale of Map</b>
02/18/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/01/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/20/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/25/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/05/94	Flood, 50 kts., 0 injuries, 0 deaths, \$50000 property damage, \$0 crop damage	NCDC	No	N/A
07/09/94	Tstm Wind, N/A, 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
07/25/94	Tstm Wind, N/A, 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
08/01/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
08/16/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
09/17/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
09/28/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
10/21/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
10/28/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/11/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/20/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
12/11/94	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/03/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/06/95	Tstm Wind, N/A, 0 injuries, 0 deaths, \$200 property damage, \$0 crop damage	NCDC	No	N/A
01/06/95	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/28/95	Tstm Wind, 65 kts., 0 injuries, 0 deaths, \$450 property damage, \$0 crop damage	NCDC	No	N/A
02/08/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
02/18/95	Flood, N/A, 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
03/27/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/30/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
04/15/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/15/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/15/95	Tstm Wind, 59 mph, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/15/95	Tstm Wind, N/A, 0 injuries, 0 deaths, \$250000 property damage, \$0 crop damage	NCDC	No	N/A
05/23/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/10/95	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/10/95	Tstm Wind, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/12/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/30/95	Tstm Wind, N/A, 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
06/30/95	Tstm Wind, N/A, 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
07/23/95	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/26/95	Tstm Wind, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/03/95	Tstm Wind, 56 kts., 0 injuries, 0 deaths, \$300 property damage, \$0 crop damage	NCDC	No	N/A
09/18/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
10/04/95	Flash Flood, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
10/05/95	Tstm Wind, N/A, 7 injuries, 8 deaths, \$75000000 property damage, \$50000000 crop damage	NCDC	No	N/A
10/27/95	Tstm Wind, N/A, 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
10/27/95	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
11/03/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
11/20/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
12/02/95	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
01/29/96	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
02/03/96	Cold Wind, 0 injuries, 0 deaths, \$0 property damage, and \$0 crop damage	NCDC	No	N/A
03/06/96	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
03/26/96	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
04/26/96	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
04/26/96	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
04/26/96	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/30/96	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/31/96	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/10/96	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/20/96	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/25/96	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
07/03/96	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/08/96	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
01/06/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
01/23/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/30/97	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
04/06/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
04/22/97	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/03/97	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/27/97	Hail, 1.25 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/30/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/01/97	Cold Wind, 0 injuries, 0 deaths, \$0 property damage, and \$0 crop damage	NCDC	No	N/A
06/05/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/13/97	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
06/24/97	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$8000 property damage, \$0 crop damage	NCDC	No	N/A
07/05/97	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/15/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/27/97	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
07/28/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
08/16/97	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
09/01/97	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$20000000 crop damage	NCDC	No	N/A
09/02/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
10/08/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
10/23/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
10/26/97	Funnel Cloud, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
11/26/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
12/01/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
12/01/97	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/19/98	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
02/04/98	Flood, N/A, 0 injuries, 0 deaths, \$400000 property damage, \$0 crop damage	NCDC	No	N/A
02/09/98	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
02/11/98	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/08/98	Flood, N/A, 0 injuries, 0 deaths, \$500000 property damage, \$0 crop damage	NCDC	No	N/A
04/03/98	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
04/17/98	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/17/98	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$50000 property damage, \$0 crop damage	NCDC	No	N/A
04/19/98	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
04/30/98	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
04/30/98	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/30/98	Lightning, N/A, 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
05/03/98	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/03/98	Funnel Cloud, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/08/98	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/08/98	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/18/98	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
05/29/98	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
05/30/98	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/05/98	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/05/98	Tstm Wind, 61 kts., 0 injuries, 0 deaths, \$25000 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/19/98	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/19/98	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
07/20/98	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/20/98	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/19/98	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
09/03/98	High Wind, 50 mph, 0 injuries, 0 deaths, \$100000 property damage, \$0 crop damage	NCDC	No	N/A
10/28/98	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
12/14/98	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
01/13/99	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/26/99	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
04/07/99	Hail, 2.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/28/99	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/01/99	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/06/99	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/20/99	Heat, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
08/01/99	Heat, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/01/99	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/19/99	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/19/99	Tstm Wind, 44 kts., 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
08/20/99	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/20/99	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/20/99	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
01/28/00	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
02/01/00	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/10/00	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
03/11/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
04/01/00	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/09/00	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/01/00	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/26/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/01/00	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$306700000 crop damage	NCDC	No	N/A
06/07/00	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/18/00	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
06/22/00	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/22/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$10000 property damage, \$0 crop damage	NCDC	No	N/A
06/22/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
06/28/00	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A
07/01/00	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/11/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
07/20/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$10000 property damage, \$0 crop damage	NCDC	No	N/A
07/20/00	Lightning, N/A, 0 injuries, 0 deaths, \$75000 property damage, \$0 crop damage	NCDC	No	N/A
08/18/00	Lightning, N/A, 1 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/18/00	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/18/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
08/30/00	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	DNR	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
10/01/00	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
10/08/00	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/01/00	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/16/00	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
03/01/01	Heavy Rain, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/03/01	Lightning, N/A, 0 injuries, 0 deaths, \$20K property damage, \$0 crop damage	NCDC	No	N/A
05/12/01	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/22/01	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/22/01	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$2000 property damage, \$0 crop damage	NCDC	No	N/A
05/31/01	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$150000 property damage, \$0 crop damage	NCDC	No	N/A
06/05/01	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$3000 property damage, \$0 crop damage	NCDC	No	N/A
06/10/01	Small Stream Flood, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/21/01	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
06/21/01	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$7000 property damage, \$0 crop damage	NCDC	No	N/A
08/10/01	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
09/26/01	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
10/01/01	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
10/27/01	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
11/01/01	Heat, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/01/01	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/01/01	Heat, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/02/02	Winter Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/24/02	Heat, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/29/02	Dense Fog, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/30/02	Dense Fog, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/26/02	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/01/02	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/15/02	Heat, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/01/02	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/16/02	Heat, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
05/18/02	Cold Wind, 0 injuries, 0 deaths, \$0 property damage, and \$0 crop damage	NCDC	No	N/A
06/14/02	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
06/30/02	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/02/02	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
07/06/02	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/06/02	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/06/02	Tstm Wind, 61 kts., 0 injuries, 0 deaths, \$1000 property damage, \$0 crop damage	NCDC	No	N/A
07/24/02	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/01/02	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/03/02	Excessive Heat, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/14/02	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/14/02	Tstm Wind, 0 kts., 0 injuries, 0 deaths, \$8000 property damage, \$0 crop damage	NCDC	No	N/A
10/06/02	Heavy Rain, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/01/03	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/11/03	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
01/22/03	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/23/03	Extreme Cold, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/22/03	Heavy Rain, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/22/03	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
03/19/03	Hail, 2.50 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/19/03	Tstm Wind, 54 kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/20/03	Flash Flood, N/A, 0 injuries, 0 deaths, \$60K property damage, \$0 crop damage	NCDC	No	N/A
05/02/03	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$15K property damage, \$0 crop damage	NCDC	No	N/A
06/12/03	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
07/01/03	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/17/03	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
07/17/03	Lightning, N/A, 0 injuries, 0 deaths, \$250K property damage, \$0 crop damage	NCDC	No	N/A
07/22/03	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$7K property damage, \$0 crop damage	NCDC	No	N/A
07/29/03	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
03/01/04	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/25/04	Tstm Wind, 50 kts., 0 injuries, 0 deaths, \$2K property damage, \$0 crop damage	NCDC	No	N/A
08/17/04	Lightning, N/A, 0 injuries, 0 deaths, \$5K property damage, \$0 crop damage	NCDC	No	N/A
08/17/04	Flash Flood, N/A, 0 injuries, 0 deaths, \$150K property damage, \$0 crop damage	NCDC	No	N/A
09/06/04	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/06/04	Tstm Wind, 36kts., 0 injuries, 0 deaths, \$14M property damage, \$26.5M crop damage	NCDC	No	N/A
09/07/04	Heavy Rain, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/16/04	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/16/04	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$327K property damage, \$0 crop damage	NCDC	No	N/A
09/26/04	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/27/04	Flood, N/A, 0 injuries, 0 deaths, \$661K property damage, \$0 crop damage	NCDC	No	N/A
09/27/04	Tstm Wind, 30kts., 0 injuries, 0 deaths, \$758K property damage, \$0 crop damage	NCDC	No	N/A
11/24/04	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
01/28/05	Winter Storm, N/A, 0 injuries, 0 deaths, \$9.8M property damage, \$0 crop damage	NCDC	No	N/A
03/08/05	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$2K property damage, \$0 crop damage	NCDC	No	N/A
03/27/05	Flood, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
03/27/05	Flash Flood, N/A, 0 injuries, 0 deaths, \$225K property damage, \$0 crop damage	NCDC	No	N/A
03/31/05	Lightning, N/A, 0 injuries, 0 deaths, \$50K property damage, \$0 crop damage	NCDC	No	N/A
05/20/05	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/20/05	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/20/05	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$5K property damage, \$0 crop damage	NCDC	No	N/A
06/02/05	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/12/05	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/10/05	Hurricane, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/18/05	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/29/05	Hurricane, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
10/05/05	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/28/05	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/28/05	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$100,000 property damage, \$0 crop damage	NCDC	No	N/A
12/28/05	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/28/05	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
12/28/05	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/02/06	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/26/06	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
07/16/06	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
07/22/06	Tstm Wind, 49kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
07/28/06	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/08/06	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
08/21/06	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$75K property damage, \$0 crop damage	NCDC	No	N/A
03/01/07	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/07/07	Frost/Freeze, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/01/07-12/01/07	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$344M crop damage	NCDC	No	N/A
06/05/07	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/05/07	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/05/07	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$2K property damage, \$0 crop damage	NCDC	No	N/A
07/20/07	Tstm Wind, 54kts., 0 injuries, 0 deaths, \$175K property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
08/01/07	Extreme Heat, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/17/07	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/17/07	Tstm Wind, 48kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
02/17/08	Tstm Wind, 53kts., 0 injuries, 0 deaths, \$25K property damage, \$0 crop damage	NCDC	No	N/A
02/26/08	Tstm Wind, 37kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
03/15/08	Tstm Wind, 52kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/19/08	Tstm Wind, 35kts., 0 injuries, 0 deaths, \$2K property damage, \$0 crop damage	NCDC	No	N/A
04/04/08	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/04/08	Tstm Wind, 52kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/11/08	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$2K property damage, \$0 crop damage	NCDC	No	N/A
06/02/08	Lightning, N/A, 0 injuries, 0 deaths, \$10K property damage, \$0 crop damage	NCDC	No	N/A
07/04/08	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/04/08	Tstm Wind, 52kts., 0 injuries, 0 deaths, \$5K property damage, \$0 crop damage	NCDC	No	N/A
07/28/08	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$600k property damage, \$0 crop damage	NCDC	No	N/A
07/28/08	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$100K property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
07/28/08	Lightning, N/A, 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A
08/07/08	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/21/08	Tropical Storm, N/A, 0 injuries, 0 deaths, \$1.9M property damage, \$0 crop damage	NCDC	No	N/A
08/25/08	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$25K property damage, \$0 crop damage	NCDC	No	N/A
08/26/08	Funnel Cloud, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/11/08	Lightning, N/A, 12 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/18/09	Tornado, F0, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/01/09	Winter Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/28/09	Lightning, N/A, 0 injuries, 0 deaths, \$26K property damage, \$0 crop damage	NCDC	No	N/A
04/13/09	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$10K property damage, \$0 crop damage	NCDC	No	N/A
04/21/09	High Wind, 50 mph, 0 injuries, 0 deaths, \$5000 property damage, \$0 crop damage	NCDC	No	N/A
05/05/09	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/10/09	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/10/09	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/10/09	Tstm Wind, 56kts., 0 injuries, 0 deaths, \$300K property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
05/10/09	Tstm Wind, 54kts., 0 injuries, 0 deaths, \$50K property damage, \$0 crop damage	NCDC	No	N/A
06/18/09	Tstm Wind, 51kts., 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/22/09	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$10K property damage, \$0 crop damage	NCDC	No	N/A
06/22/09	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$50K property damage, \$0 crop damage	NCDC	No	N/A
07/08/09	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/18/09	Flash Flood, N/A, 0 injuries, 0 deaths, \$50k property damage, \$0 crop damage	NCDC	No	N/A
09/21/09	Flash Flood, N/A, 0 injuries, 0 deaths, \$50k property damage, \$0 crop damage	NCDC	No	N/A
11/10/09	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
01/16/10	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
01/24/10	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$100K property damage, \$0 crop damage	NCDC	No	N/A
02/12/10	Heavy Snow, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/19/10	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
02/22/10	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/12/10	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/12/10	Heavy Rain, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
04/25/10	Lightning, N/A, 0 injuries, 0 deaths, \$150k property damage, \$0	NCDC	No	N/A
04/25/10	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
05/21/10	Tstm Wind, 56kts., 0 injuries, 0 deaths, \$100K property damage, \$0 crop damage	NCDC	No	N/A
06/05/10	Tstm Wind, 71kts., 0 injuries, 0 deaths, \$20K property damage, \$0 crop damage	NCDC	No	N/A
06/16/10	Lightning, N/A, 0 injuries, 0 deaths, \$25k property damage, \$0	NCDC	No	N/A
07/26/10	Tstm Wind, 39kts., 0 injuries, 0 deaths, \$2K property damage, \$0 crop damage	NCDC	No	N/A
08/06/10	Lightning, N/A, 0 injuries, 0 deaths, \$5k property damage, \$0	NCDC	No	N/A
09/13/10	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
09/26/10	Flood, N/A, 0 injuries, 0 deaths, \$10K property damage, \$0 crop damage	NCDC	No	N/A
10/25/10	Hail, 1.75 magnitude, 0 injuries, 0 deaths, \$650 property damage, \$0 crop damage	NCDC	No	N/A
12/30/10	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
01/10/11	Winter Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/12/11	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
04/05/11	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$100K property damage, \$0 crop damage	NCDC	No	N/A
05/26/11	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/15/11	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/15/11	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$5K property damage, \$0 crop damage	NCDC	No	N/A
08/08/11	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/01/11	Drought, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
09/04/11	Tropical Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
11/16/11	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
11/22/11	Tstm Wind, 52kts., 0 injuries, 0 deaths, \$50K property damage, \$0 crop damage	NCDC	No	N/A
03/16/12	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
04/14/12	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
06/05/12	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/05/12	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$3K property damage, \$0 crop damage	NCDC	No	N/A
06/10/12	Hail, .88 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/10/12	Tstm Wind, 55kts., 0 injuries, 0 deaths, \$2.5K property damage, \$0 crop damage	NCDC	No	N/A
06/10/12	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$30K property damage, \$0 crop damage	NCDC	No	N/A
06/10/12	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$1K property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/14/12	Tstm Wind, 60kts., 0 injuries, 0 deaths, \$3K property damage, \$0 crop damage	NCDC	No	N/A
06/29/12	Excessive Heat, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/01/12	Excessive Heat, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/01/12	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
07/01/12	Tstm Wind, 60kts., 0 injuries, 0 deaths, \$150K property damage, \$0 crop damage	NCDC	No	N/A
07/03/12	Lightning, N/A, 0 injuries, 0 deaths, \$300k property damage, \$0 crop damage	NCDC	No	N/A
07/03/12	Tstm Wind, 55kts., 0 injuries, 0 deaths, \$2.5K property damage, \$0 crop damage	NCDC	No	N/A
07/26/12	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$1.5K property damage, \$0 crop damage	NCDC	No	N/A
08/14/12	Tstm Wind, 45kts., 0 injuries, 0 deaths, \$500 property damage, \$0 crop damage	NCDC	No	N/A
01/30/13	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$10K property damage, \$0 crop damage	NCDC	No	N/A
03/18/13	Tstm Wind, 60kts., 0 injuries, 0 deaths, \$20K property damage, \$0 crop damage	NCDC	No	N/A
04/14/13	Strong Wind, 40kts., 0 injuries, 0 deaths, \$15K property damage, \$0 crop damage	NCDC	No	N/A
04/19/13	Tstm Wind, 45kts., 0 injuries, 0 deaths, \$500 property damage, \$0 crop damage	NCDC	No	N/A
04/28/13	Tstm Wind, 40kts., 0 injuries, 0 deaths, \$250 property damage, \$0 crop damage	NCDC	No	N/A
06/02/13	Tstm Wind, 45kts., 0 injuries, 0 deaths, \$750 property damage, \$0 crop damage	NCDC	No	N/A

Date	Hazard or Event Description (type of hazard, date of event, number of injuries, cost and types of damage, etc.)	Source of Information	Map Available for this Hazard?	Scale of Map
06/24/13	Tstm Wind, 60kts., 0 injuries, 0 deaths, \$5K property damage, \$0 crop damage	NCDC	No	N/A
06/28/13	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$1.5K property damage, \$0 crop damage	NCDC	No	N/A
07/10/13	Flash Flood, N/A, 0 injuries, 0 deaths, \$15k property damage, \$0 crop damage	NCDC	No	N/A
08/16/13	Flash Flood, N/A, 0 injuries, 0 deaths, \$5k property damage, \$0 crop damage	NCDC	No	N/A
08/23/13	Lightning, N/A, 0 injuries, 0 deaths, \$30k property damage, \$0 crop damage	NCDC	No	N/A
10/18/13	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
01/11/14	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$750 property damage, \$0 crop damage	NCDC	No	N/A
01/28/14	Winter Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
02/12/14	Ice Storm, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
03/28/14	Strong Wind, 40kts., 0 injuries, 0 deaths, \$60K property damage, \$0 crop damage	NCDC	No	N/A
05/25/14	Tstm Wind, 60kts., 0 injuries, 0 deaths, \$5K property damage, \$0 crop damage	NCDC	No	N/A
06/02/14	HazMat Spill, N/A, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NRC	No	N/A
06/16/14	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
06/16/14	Hail, .75 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
08/20/14	Lightning, N/A, 0 injuries, 0 deaths, \$500 property damage, \$0 crop damage	NCDC	No	N/A

<b>Date</b>	<b>Hazard or Event Description</b> (type of hazard, date of event,number of injuries, cost and types of damage, etc.)	<b>Source of Information</b>	<b>Map Available for this Hazard?</b>	<b>Scale of Map</b>
09/02/14	Tstm Wind, 50kts., 0 injuries, 0 deaths, \$5K property damage, \$0 crop damage	NCDC	No	N/A
10/14/14	Tstm Wind, 45kts., 0 injuries, 0 deaths, \$250 property damage, \$0 crop damage	NCDC	No	N/A
11/23/14	Tornado, F1, 0 injuries, 0 deaths, \$50k property damage, \$0 crop damage	NCDC	No	N/A
11/23/14	Tstm Wind, 55kts., 0 injuries, 0 deaths, \$2K property damage, \$0 crop damage	NCDC	No	N/A
12/23/14	Hail, 1.00 magnitude, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A
12/23/14	Heavy Rain, 0 injuries, 0 deaths, \$0 property damage, \$0 crop damage	NCDC	No	N/A

# GEMA Worksheet #2

# Profile Hazard Events Step 2

County: **Houston**

Date: **August 2015**

How Bad Can It Get?

Task A. Obtain or create a base map.

GEMA will be providing you with a base map, USGS topos and DOQQ as part of our deliverables to local government for the planning process. Additionally, we will be providing you with detailed hazard layer coverages. These data layers originate from state or nationwide coverage or datasets. Therefore, it is important for local government to assess what you already have at the local level. It is important for you at the local level to have an idea of what existing maps you have available for the planning process. Some important things to think about:

- 1) What maps do we already have in the county that would be relevant to the planning process?
- 2) Have other local plans used maps or mapping technology where there is specific data that is also needed in my local plan?
- 3) What digital maps do we have?
- 4) Do we have any Geographic Information System (GIS) data, map themes or layers or databases here at the local level (or regional) that we can use?
- 5) If we do have any GIS data, where is it located at, and who is our local expert?
- 6) Are there any ongoing GIS or mapping initiatives at the local level in other planning or mapping efforts? If so, what are they, and what are the timetables for completion?
- 7) Are there mapping needs that have been identified at the local level in the past? If so, what are they and when were they identified?
- 8) Of the existing maps, GIS data and other digital mapping information, what confidence do we have at the local level that it is accurate data?

***Please answer the above questions on a separate sheet of paper and attach to this worksheet.***

It is important to realize that those counties that already have GIS and digital mapping, (ie: parcel level data, GPS fire hydrants, etc) higher levels of spatial accuracy and detail will exist for some data layers at the local level. However, for this planning process, that level of detail will not be needed on all layers in the overall mapping and analysis.

You can use existing maps from:

- Road Maps
- USGS topographic maps or Digital Orthophoto Quarter Quads (DOQQ)
- Topographic and/or planimetric maps from other agencies
- Aerial topographic and/or planimetric maps
- Field Surveys
- GIS software
- CADD software
- Digitized paper map

Title of Map	Scale	Date
GDOT Highway & Transportation Map	1" : ¼ Mile	2013
USGS Topographic Map	1: 24,000	2014
Georgia Flood Map	Interactive/ varies	2015
FEMA Flood Data FIRM Map	1 : 1000	2007
Georgia Mitigation Information System	Interactive/ varies	2015

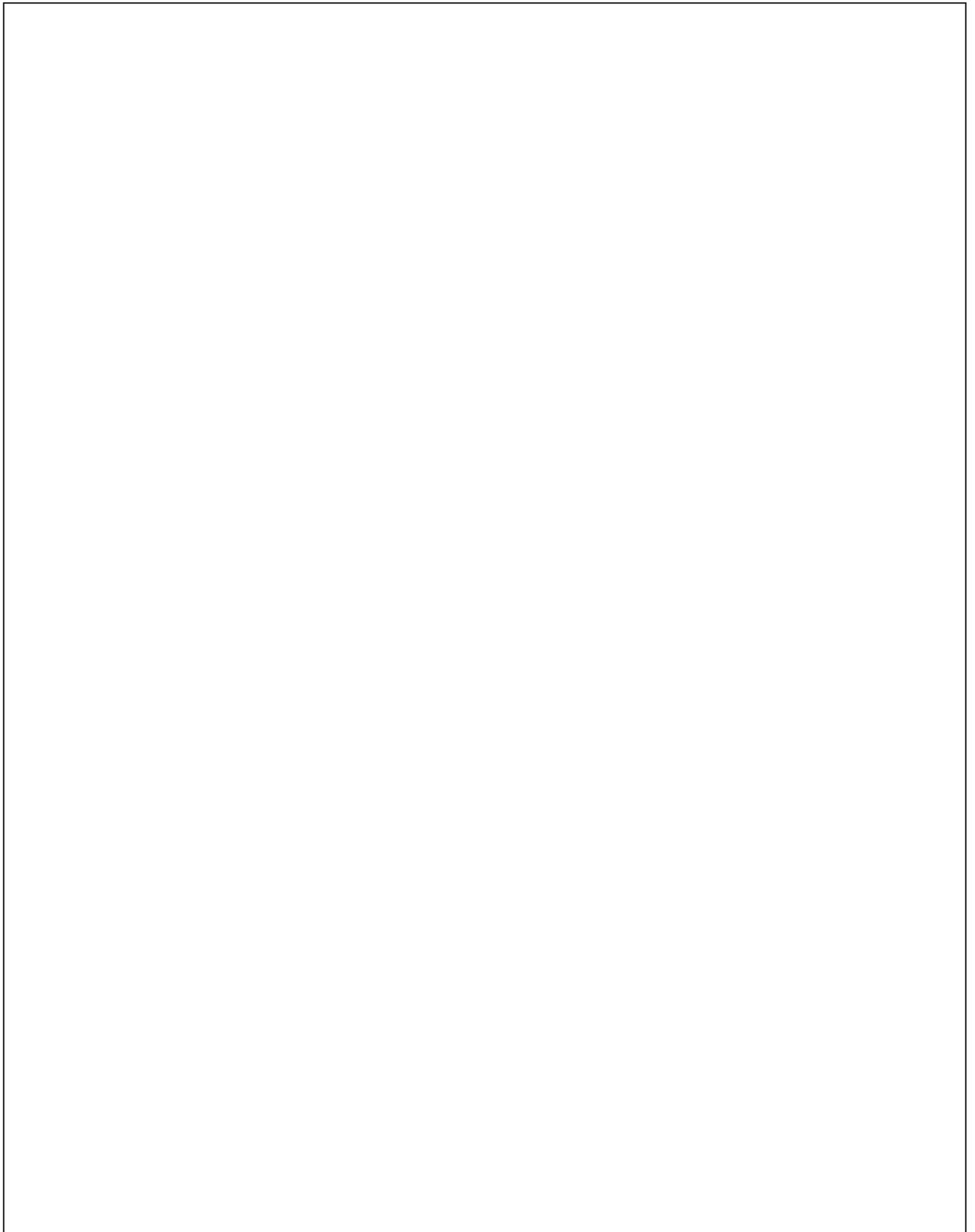
Task B. Obtain a hazard event profile.	Task C. Record your hazard event profile information.
Avalanche	
Coastal Storm / Coastal Erosion <ol style="list-style-type: none"> <li>1. Get a copy of your FIRM. <b>X</b></li> <li>2. Verify that the FIRM is up-to-date and complete. <b>X</b></li> <li>3. Determine the annual rate of coastal erosion. <b>N/A</b></li> <li>4. Find your design wind speed. <b>N/A</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Transfer the boundaries of your coastal storm hazard areas onto your base map.</li> <li>2. Transfer the BFEs onto your base map.</li> <li>3. Record the erosion rates on your base map: <b>N/A</b></li> <li>4. Record the design wind speed here and on your base map: <b>N/A</b></li> </ol>
Dam Failure	
Drought	
Earthquake <ol style="list-style-type: none"> <li>1. Go to the <a href="http://geohazards.cr.usgs.gov">http://geohazards.cr.usgs.gov</a> Website.</li> <li>2. Locate your planning area on the map.</li> <li>3. Determine your PGA.</li> </ol>	<ol style="list-style-type: none"> <li>1. Record your PGA: <b>.06</b></li> <li>2. If you have more than one PGA print, download or order your PGA map.</li> </ol>
Expansive Soils – <b>N/A</b>	
Extreme Heat – <b>N/A</b>	
Flood <ol style="list-style-type: none"> <li>1. Get a copy of your FIRM. <b>X</b></li> <li>2. Verify the FIRM is up-to-date and complete. <b>X</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Transfer the boundaries from your firm onto your base map (floodway, 100-yr flood, 500-yr flood).</li> <li>2. Transfer the BFEs onto your base map.</li> </ol>
Hailstorm – <b>N/A</b>	
Hurricane – <b>N/A</b>	
Land Subsidence – <b>N/A</b>	
Landslide <ol style="list-style-type: none"> <li>1. Map location of previous landslides. <b>N/A</b></li> <li>2. Map the topography. <b>N/A</b></li> <li>3. Map the geology. <b>N/A</b></li> <li>4. Identify thee high-hazard areas on your map. <b>N/A</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Mark the areas susceptible to landslides onto your base map.</li> </ol>
Severe Winter Storm – <b>Entire Planning Area</b>	
Tornado <ol style="list-style-type: none"> <li>1. Find your design wind speed. <b>90-99 miles per hour.</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Record your design wind speed: <b>90 - 99mph.</b></li> <li>2. If you have more than one design wind speed, print, download or copy your design wind speed zones, copy the boundary of your design wind speed zones on your base map, then record the design wind speed zones on your base map.</li> </ol>
Tsunami <b>N/A</b>	
Wildfire <ol style="list-style-type: none"> <li>1. Map the fuel models located within the urban-wildland interface areas. <b>X</b></li> <li>2. Map the topography. <b>X</b></li> <li>3. Determine your critical fire weather frequency. <b>X</b></li> <li>4. Determine your fire hazard severity. <b>X</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Draw the boundaries of your wildfire hazard areas onto your base map.</li> </ol>
Other <ol style="list-style-type: none"> <li>1. Map the hazard. <b>X</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Record hazard event info on your base map.</li> </ol>



<b>Alternative Actions</b>	<b>Comments</b>
Continue code enforcement; inspect facilities; require site engineering	On-going, preventative action based on good practice. This is low cost, a high benefit, and each local government has the capacity to undertake.



Alternative Actions	Comments
Use GEMA/FEMA buyout program to obtain flood-prone properties	This is a reactive method of accomplishing in that it requires funding sources from outside organizations?
Seek mitigation grant funding from state and federal resources.	Must anticipate funding need. It is vital to match projects and funding sources. This is heavily dependent upon available program resources. There is very little cost involved from a local perspective and the benefit can be great.
Obtain permitting and annually clean-up and maintain Bay Gall Creek	This is an annual cost that is significant. This is heavily dependent upon available the ability to obtain permitting which has been difficult. Locally this is a good decision and the benefit will be significant.





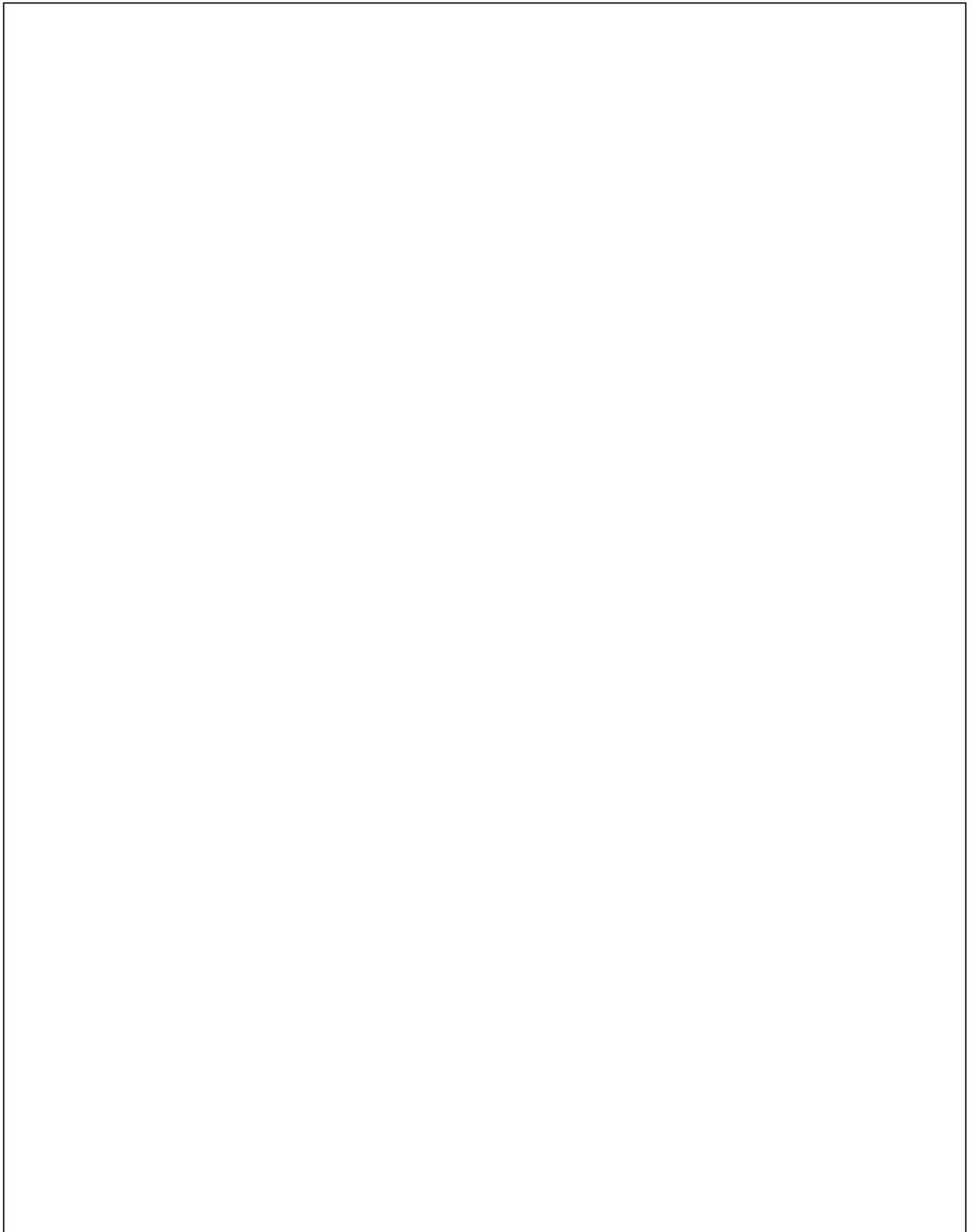
<b>Alternative Actions</b>	<b>Comments</b>
Ensure protection of wastewater treatment plants within the county.	Ongoing activity. Many actions have been taken that have resulted in this protection. There are, however, still efforts must be continued to monitor their condition. Funding can oftentimes be difficult for these efforts and outside funding may be necessary.
Address stormwater management issues within the county and cities.	These costs can be considerable and increased development can cause stormwater issues. The county must rely upon multiple funding sources to address these concerns.



<b>Alternative Actions</b>	<b>Comments</b>
Continue to identify and train personnel for GSAR team.	Ongoing activity. The nature of this action is both low cost and high benefit.
Conduct simulated disaster exercises with multiple response agencies.	Similarly low cost and is an ongoing function. It is important to include as many partners as possible.



<b>Alternative Actions</b>	<b>Comments</b>
Obtain and distribute materials to help educate the public about tornado safety.	The cost of this action is fairly low. It is important to coordinate this effort with the school system and other groups with access to the public.
Maintain active status in the CodeRed alert system.	This is an ongoing activity. This provides significant benefit to the County at some cost. Benefit heavily outweighs the cost.





<b>Alternative Actions</b>	<b>Comments</b>
Update and maintain call-in procedures for off-duty personnel.	Is very cost effective. Requires coordination from all local jurisdictions. This is a useful activity for any hazardous event. While procedures have been developed, they must be maintained and updated as technology advances.
Update and implement the mobilization plan to detail public safety official actions.	Is very cost effective. Requires coordination from all local jurisdictions. This is a useful activity for any hazardous event. While procedures have been developed, they must be maintained and updated as technology advances.



<b>Alternative Actions</b>	<b>Comments</b>
Coordinate with the GFC to develop the Community Wildfire Protection Plan	Is very cost effective. Completed in concert with the Georgia Forestry Commission. Anticipated to be completed shortly.
Educate/inform homeowners on the importance of clearing brush.	Is very cost effective. Completed in concert with the Georgia Forestry Commission. An ongoing activity with other awareness efforts.



<b>Alternative Actions</b>	<b>Comments</b>
Educate and inform the public about thunderstorms through PSAs.	Is very cost effective and can reach a broad cross-section of the population.



<b>Alternative Actions</b>	<b>Comments</b>
Identify and remove trees/limbs that could damage structures and/or power lines.	On-going operation. Requires constant attention and maintenance. It can be expensive if not done regularly.
Continued enforcement that requires manufactured homes to be tied-down.	On-going action. Very low cost and is possible through current capabilities.



<b>Alternative Actions</b>	<b>Comments</b>
Inform the public about the dangers of lightning strikes.	On-going operation. Very cost effective with the ability to reach a high volume of people.



<b>Alternative Actions</b>	<b>Comments</b>
Obtain back-up power supplies for critical facilities.	Back-up generators can be very costly. As critical facilities are updated this must continue to be a consideration.



<b>Alternative Actions</b>	<b>Comments</b>
Develop and maintain a list of shelter locations and inform the public.	List must constantly be maintained and distributed. These can be used for multiple types of hazards.



<b>Alternative Actions</b>	<b>Comments</b>
Identify high danger area where ice typically occurs on the roadway.	Low cost and high benefit action.



<b>Alternative Actions</b>	<b>Comments</b>
Train adequate personnel needed to respond to HAZMAT spills.	An ongoing action item of low cost and high benefit.



<b>Alternative Actions</b>	<b>Comments</b>
Map the storm water shut-off points.	There are numerous technological compatibility issues with this. Because of this, the map may be considered high cost and difficult to coordinate.

HOUSTON COUNTY  
HAZARD FREQUENCY TABLE

Hazard	Number of Events in Historic Record	Number of Years in Historic Record	Number of Events in Past 10 Years	Number of Events in Past 20 Years	Number of Events in Past 50 Years	Historic Recurrence Interval (years)	Historic Frequency % chance/year	Past 10 Year Record Frequency Per Year	Past 20 Year Record Frequency Per Year	Past 50 Year Record Frequency Per Year
Hurricane Surge - Cat 1	0	63	0	0	0	0.00	0.00	0	0	0
Hurricane Surge - Cat 2	0	63	0	0	0	0.00	0.00	0	0	0
Hurricane Surge - Cat 3	0	63	0	0	0	0.00	0.00	0	0	0
Hurricane Surge - Cat 4	0	63	0	0	0	0.00	0.00	0	0	0
Hurricane Surge - Cat 5	0	63	0	0	0	0.00	0.00	0	0	0
Hurricane Wind	0	63	0	0	0	0.00	0.00	0	0	0
Floods	15	63	9	15	15	4.20	23.81	0.9	0.75	0.3
Wildfire	0	63	0	0	0	0.00	0.00	0	0	0
Earthquake	0	63	0	0	0	0.00	0.00	0	0	0
Tornado	19	63	2	2	13	3.32	30.16	0.2	0.1	0.26
Thunderstorm Wind	185	63	58	116	185	0.34	293.65	5.8	5.8	3.7
Hail	78	63	36	69	78	0.81	123.81	3.6	3.45	1.56
Drought	17	63	2	17	17	3.71	26.98	0.2	0.85	0.34
Extreme Heat	4	63	3	4	4	15.75	6.35	0.3	0.2	0.08
Extreme Cold/Frost	11	63	1	11	11	5.73	17.46	0.1	0.55	0.22
Winter Storm	7	63	5	6	7	9.00	11.11	0.5	0.3	0.14
Landslide	0	63	0	0	0	0.00	0.00	0	0	0
Dam Failure	0	63	0	0	0	0.00	0.00	0	0	0
Lightning	17	63	12	17	17	3.71	26.98	1.2	0.85	0.34
HazMat Release (fixed)	127	21	4	99	127	0.17	604.76	0.4	4.95	2.54
HazMat Release (trans)	26	21	4	14	26	0.81	123.81	0.4	0.7	0.52
Radiological Release	0	0	0	0	0	0.00	0.00	0	0	0

**NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval. For example: If there have been 20 HazMat Releases in the County in the past 5 years, statistically you could expect that there will be 4 releases a year.**

**Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuracy has been much better in the past 10-20 years (NCDC weather records). 3) It is important to include all significant recorded hazard events which will include periodic updates to this table.**

**By updating and reviewing this table over time, it may be possible to see if certain types of hazard events are increasing in the past 10-25 years.**

**HOUSTON COUNTY**  
**Critical Facility Data Collection Form**

Facility Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Nearest Cross Street: \_\_\_\_\_

Point of Contact: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Year Constructed: \_\_\_\_\_

Square Footage: \_\_\_\_\_

Finished Floor Elevation: \_\_\_\_\_

Number of Stories: \_\_\_\_\_

Replacement Cost of Structure: \_\_\_\_\_

Replacement Cost of Contents: \_\_\_\_\_

Emergency Generator (Yes/No): \_\_\_\_\_

Number of Times Damaged/Causes: \_\_\_\_\_  
(Wind, Flooding, Lightening, etc.)

Type of Construction: \_\_\_\_\_  
(Brick/Mortar, Wood, Steel, Glass, Other)

Type of Roof: \_\_\_\_\_  
(Shingle, Metal, Masonry, Pitch, Other)

**Examples of Critical Facilities:**

Police Stations, Fire Stations, Water Treatment Plants, Sewage Treatment Plants, Water Towers, Electrical Stations, Pumping Stations, Schools, Emergency Operation Centers, 911 Centers, Major Highways, Bridges, Evacuation Shelters, High Hazard Facilities, Hospitals, Nursing Homes, Etc.

**PLEASE PREPARE THIS FORM FOR EACH CRITICAL FACILITY IN YOUR COUNTY**

## **Appendix E**

### **Planning Committee Documentation**



**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
EXECUTIVE MEETING #1  
AUGUST 15, 2014  
10:00 A.M.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

- I. Welcome**
- II. GEMA Presentation**
- III. Roles and Responsibilities of the Committee**
  - Regional Commission and EMA Role
  - In-kind Contribution
  - Committee Structure
  - Required Timelines
- IV. Current Pre-Disaster Mitigation Plan**
- V. Future Meetings**
  - Critical Facilities
  - Identifying/Profiling Hazards
  - Assessing Vulnerability/ Estimating Potential Losses
  - Developing Mitigation Goals/Strategy
- VI. Schedule of Next Meeting**
- VII. Adjourn**

# Attendance Record for Houston County Pre-Disaster Plan Meeting

Meeting Date: 8/15/2014

Name	Title	Organization	Phone	E-mail
Heather Holloway	RN, Nursing Sup.	Houston County Health Dept	478-210-2000	heather.holloway@dph.ga.gov
Sharon Pettit	EHS III	Houston County Health Dept	478-218-2020	Sharon.pettit@dph.ga.gov
Sonya Jenkins	Chairman	Robins Regional Chamber	(478) 320-3263	boardchair@robinsregion.com
Barely Holloway	DIRECTOR OF ADMIN	Houston County Commissioners	478-542-2115	bholloway@houstoncountygga.org
Timothy Andrews	Building Official	Houston Co. Commissioners	(478) 542-2018	timandrews@houstoncountygga.org
David Haynes	Fire Chief Dept of Corr.	Dooly State Prison (Georgia Dept. Corr.)	(478) 627-2107	hayne.j00@dcor.state.ga.us
Allen F. Ross	DEPUTY WARDEN	GA. DEPT OF CORRECTIONS (Dooly Prison)	478-365-4850	AWA-000-SP@DCOR.STATE.GA.US
Mikki Quinones	Lieutenant	HCSD - E-911	478-542-9911	mbquinones@houstoncountygga.org
Ricky Harlowe	CAPTAIN	HCSD - E-911	478-542-9911	rhadowe@houstoncountygga.org
Tommy Jackson	MAJOR	HCSD	478-542-2125	tjackson@houstoncountygga.org



# Attendance Record for Houston County Pre-Disaster Plan Meeting

Meeting Date: 8/15/2014

<u>Name</u>	<u>Title</u>	<u>Organization</u>	<u>Phone</u>	<u>E-mail</u>
BRISN JONES	COUNTY ENGINEER	HOUSTON CO. PUBLIC WORKS	478-987-4280	bjones@houstoncountyga.org
Kirk Crumpton	Lieutenant	PERRY FIRE DEPT.	478-988-2852	kirk.crumpton@perry-ga.gov
Kevin Noles	Asst. Chief	Houston Co. Fire + EMA	478-542-2046	knoles@houstoncountyga.org
Jason Jones	Fire Chief	City of Centerville Fire	478-953-4050	jjones@cfld.coxmail.com
LARRY THOMSON	Ho Co. Commissioner	Ho. Co. Cour	478-919-6109	lcthompson@windstream.net
ERIC L. WOSLEY	MITIGATION Mgr.	GA FORESTRY COMMISSION	712-531-7152	emosley@gaforestga.us
Beryl Budd	Wildfire Preventive Specialist	GA Forestry Commission	404-357-0827	bbudd@gaforestga.us
DONALD DRUITT	DIRECTOR	MACON-BIBB EMA	478-832-6300	ddruitt@macombibb-ga.us
DAVID BORGHESE	DIRECTOR	HOUSTON HEALTHCARE	478-975-5265	dborghesi@chkc.org
Kevin Bartoe	Dep Chief	Robbins AFB Fire Emergency Services	478-926-2042	Kevin.bartoe@us.af.mil
Nick Tresco	Chief Raiser	GA Forestry Comm.	478-988-7124	ntresco@gf.stk.ga.us
MONTIE WALTERS	UTILITY DIR.	CITY OF WR	478-929-1905	m.walters@wr-ga.gov
Lois Kemper	<del>Asst. Chief</del> - SSM	Houston County DFCS	478-988-7539	lgkemper@hrc.state.ga.us



**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
EXECUTIVE MEETING #1  
October 17, 2014  
10:00 a.m.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

Welcome..... Mr. James Williams, Chief  
Houston County EMA

Review of Start-up Meeting and Planning Process ..... Daniel Cummings  
MGRC

- Identification of Critical Facilities
- Identification and Profiling of Hazards / Events
- Assessment of Community Vulnerability
- Development of Prioritized Mitigation Goals and Strategies

Identification and Profiling of Hazards / Events

Identification of Critical Facilities

Schedule Future Meeting..... Mr. James Williams, Chief  
Houston County EMA

Questions

Adjourn



**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
EXECUTIVE MEETING #2  
December 12, 2014  
9:30 a.m.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

Welcome..... Mr. James Williams, Chief  
Houston County EMA

Review of Start-up Meeting and Planning Process ..... Daniel Cummings  
MGRC

- Identification of Critical Facilities
- Identification and Profiling of Hazards / Events
- Assessment of Community Vulnerability
- Development of Prioritized Mitigation Goals and Strategies

Identification and Profiling of Hazards / Events

Identification of Critical Facilities

Schedule Future Meeting..... Mr. James Williams, Chief  
Houston County EMA

Questions

Adjourn





**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
EXECUTIVE MEETING #3  
January 23, 2015  
9:30 a.m.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

Welcome..... Mr. James Williams, Chief  
Houston County EMA

Review of Start-up Meeting and Planning Process ..... Daniel Cummings  
MGRC

- Identification of Critical Facilities
- Identification and Profiling of Hazards / Events
- Assessment of Community Vulnerability
- Development of Prioritized Mitigation Goals and Strategies

Review of Profiling of Hazards and Events

Identification of Critical Facilities

Schedule Future Meeting ..... Mr. James Williams, Chief  
Houston County EMA

Questions

Adjourn



**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
Meeting  
February 26, 2015  
9:30 a.m.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

Welcome..... Mr. James Williams, Chief  
Houston County EMA

Review of Start-up Meeting and Planning Process ..... Daniel Cummings  
MGRC

- Identification of Critical Facilities
- Identification and Profiling of Hazards / Events
- Assessment of Community Vulnerability
- Development of Prioritized Mitigation Goals and Strategies

Review and Discussion of Critical Facilities

Review and Update of Action Items.

Schedule Future Meeting..... Mr. James Williams, Chief  
Houston County EMA

Questions

Adjourn

# Attendance Record for Houston County Pre-Disaster Plan Meeting

Meeting Date: 2/26/2015

<u>Name</u>	<u>Title</u>	<u>Organization</u>	<u>Phone</u>	<u>E-mail</u>
<u>DAVID BORGHELLI</u>	<u>DIRECTOR</u>	<u>HOUSTON HEALTHCARE</u>	<u>(478) 975-5400</u>	<u>dborghelli@hhc.org</u>
<u>Ron Smith</u>	<u>Utilities Sup.</u>	<u>City of Warner Robins</u>	<u>(478) 952-3989</u>	<u>rsmith@wr.ga.gov</u>
<u>ALLEN ROSS</u>	<u>DEPUTY WARDEN</u>	<u>DAILY STATE PRISON</u>	<u>478 365-4850</u>	<u>ROSSALB@DCOR.STATE.GA.GOV</u>
<u>Jason Eric Collins</u>	<u>Water Treatment</u>	<u>City of Centerville</u>	<u>478-808-9738</u>	<u>jason.collins410@gmail.com</u>
<u>Ross Mountain</u>	<u>DEPUTY CHIEF</u>	<u>CITY OF WARNER ROBINS</u>	<u>478-808-9392</u>	<u>RMOUNTAIN@WRGA.GOV</u>
<u>Jason Jones</u>	<u>Fire Chief</u>	<u>City of Centerville Fire</u>	<u>478-808-9722</u>	<u>jones@cfcd.comail.com</u>
<u>Lois Kemper</u>	<u>DFCS SSM</u>	<u>DFCS</u>	<u>478-<del>808</del> 954-0843</u>	<u>lois.kemper@dhs.ga.gov</u>
<u>KRAG WOODWARD</u>	<u>ASSISTANT DIR</u>	<u>CITY OF WARNER ROBINS</u>	<u>478 538 4696</u>	<u>Kwoodward@wr.ga.gov</u>
<u>Clay Chambers</u>	<u>LT. Traffic</u>	<u>Houston County Sheriff's Office</u>	<u>478-808-7990</u>	<u>Chambers@houstoncountyga.org</u>
<u>Mikki Quinones</u>	<u>Asst. Director</u>	<u>Houston County S.D. (911)</u>	<u>478 542-9911</u>	<u>miquinones@houstoncountyga.org</u>
<u>Bradley Stone</u>	<u>Lt. Patrol</u>	<u>Houston County Sheriff's Office</u>	<u>478-542-2080</u>	<u>bstone@houstoncountyga.org</u>
<u>Ken Erell</u>	<u>Det-Lt. CID</u>	<u>Perry Police Dept.</u>	<u>478-338-0255</u>	<u>ken.erell@perry-ga.gov</u>
<u>David Haynes</u>	<u>Fire Chief</u>	<u>Daily State Prison</u>	<u>478-230-9242</u>	<u>jhayne00@dcor.state.ga.gov</u>



**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
Meeting  
March 26, 2015  
9:30 a.m.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

Welcome..... Mr. James Williams, Chief  
Houston County EMA

Review of Start-up Meeting and Planning Process ..... Daniel Cummings  
MGRC

- Identification of Critical Facilities
- Identification and Profiling of Hazards / Events
- Assessment of Community Vulnerability
- Development of Prioritized Mitigation Goals and Strategies

Review and Discussion of Critical Facilities

Review Action Items for Floods and Tornados

Review and Update Action Items for Other Hazards

Schedule Future Meeting..... Mr. James Williams, Chief  
Houston County EMA

Questions

Adjourn





**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
Meeting  
April 23, 2015  
9:30 a.m.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

Welcome..... Mr. James Williams, Chief  
Houston County EMA

Review of Start-up Meeting and Planning Process ..... Daniel Cummings  
MGRC

- Identification of Critical Facilities
- Identification and Profiling of Hazards / Events
- Assessment of Community Vulnerability
- Development of Prioritized Mitigation Goals and Strategies

Review and Update Action Items for All Hazards

Schedule Future Meeting..... Mr. James Williams, Chief  
Houston County EMA

Questions

Adjourn

# Attendance Record for Houston County Pre-Disaster Plan Meeting

Meeting Date: \_\_\_\_\_

4/23/2015

**NAME ONLY IF YOU HAVE ATTENDED BEFORE**

<u>Name</u>	<u>Title</u>	<u>Organization</u>	<u>Phone</u>	<u>E-mail</u>
Lois Kempur	Inv	Houston DFCS	478-988-7539	lois.kempur@hcs.9s.ga.gov
Jason Jones	Fire chief	Centerville Fire	478-953-4050	j.jones@cfid.comail.com
John Wagner, Jr.	Asst. Chief	WR PD	478-808-2828	j.wagner@worga.org
Ross Mouton	Dep. Chief	WRFD		
Ron Smith	Op. Sup.	CNR UTILITIES	478-952-3589	Rsmith@wrga.gov
Jack Johnson	Lieutenant	Perry PD	478-951-5533	Jack.Johnson@Perry-GA.gov
Ronald Dasca		PERRY PD	478-988-1000	R.DASCA@chadstate.ga.gov
Ronnie Harlowe	Capt.	Houston Co. Sheriff	478-808-7984	harlowe@houstoncountyga.org
Scott Hill	Dir Facilities	Houston County BOE	478-338-3111	scott.hill@hccbe.net
Jason Eric Collins	Water Treatment Operator	City of Centerville Utilities	478-808-9738	jason.collins410@gmail.com
Allen Ross	DEPUTY WARDEN	GDC-DOOLY ST. PRISON	478-365-4850	ALLEN.ROSS@GDC.GA.GOV (NEW)
Beryl Budd	Fire Trn. Specialist	GA Forestry Comm, ISSN	404-357-0827	bbudd@gfcs.state.ga.us
David Bannett	DIRECTOR	Houston Healthcare	478-975-5400	dbannett@hhc.org



**HOUSTON COUNTY PRE-DISASTER MITIGATION PLAN  
Meeting  
June 17, 2015  
9:30 a.m.**

**Houston County Annex  
200 Carl Vinson Parkway, Warner Robins, Georgia 31088**

**AGENDA**

Welcome..... Mr. James Williams, Chief  
Houston County EMA

Review of Start-up Meeting and Planning Process ..... Daniel Cummings  
MGRC

- Identification of Critical Facilities
- Identification and Profiling of Hazards / Events
- Assessment of Community Vulnerability
- Development of Prioritized Mitigation Goals and Strategies

Review of Goals and Strategies

Schedule Future Meeting..... Mr. James Williams, Chief  
Houston County EMA

Questions

Adjourn

# HOUSTON COUNTY

Pre-Disaster Mitigation Plan Update  
HOUSTON COUNTY EMA OFFICES

Wednesday, June 17, 2015; 9:00 a.m.

## SIGN-IN SHEET

### Name

Heather Holloway

ALLEN ROSS

Lois Kemper

Aleek Treaw

Beryl Budd

Jason Jones

Jeff Anderson

Jimmy Williams

JOHN WAGNER, JR.

Kevin Nokes

Michelle Masters

Jenna Holland

Mikki Quinones

Brad Stone

Keri Hall

### AGENCY

Houston County Health Dept.

GA. DEPT. OF CORRECTIONS

Houston DFCS

Georgia Forestry

Georgia Forestry Commission

Centerville Fire Department

Warner Robins Fire Dept.

HEMA

WARNER ROBINS P. D.

Houston Co. Fire/EMA

Houston Ch. Bee

Houston Co. EMA

Houston Co. S.O. 911

Houston Co. S.O.

Houston Co. S.O. 911

**HOUSTON COUNTY  
PRE-DISASTER MITIGATION PLAN UPDATE  
PUBLIC HEARING  
July 31, 2015 - 9:00 am  
Houston County Annex**

**AGENDA**

- I. Welcome & Introduction**
- II. Background**
- III. Disaster Mitigation Act of 2000**
  - Grant awarded to Houston County
  - Planning Committee formed
  - Plan developed, approved & adopted
  - Plan components
- IV. The Update Process**
  - Grant awarded to Houston County
  - Planning Committee reconvened for plan update
  - Roles & responsibilities
  - Update requirements
  - Timelines
- V. Engaging the Public**
- VI. Discussion**
- VII. Adjourn**

# Attendance Record for Houston County Pre-Disaster Plan Public Hearing

Meeting Date: 7/31/2015

<u>Name</u>	<u>Title</u>	<u>Organization</u>	<u>Phone</u>	<u>E-mail</u>
<u>ALLEN ROSS</u>	<u>Deputy Warden</u>	<u>GA. DEPT. OF CORRECTIONS</u>	<u>478-365-4850</u>	<u>ALLEN.ROSS@EDC.GA.GOV</u>
<u>Kenneth L. Ezell</u>	<u>Detective Lieutenant</u>	<u>Perry Police Dept.</u>	<u>478-338-0255</u>	<u>ken.ezell@perry.ga.gov</u>
<u>Jimmy Williams</u>	<u>Director Fire Chief</u>	<u>Houston Co. EMA/Fire</u>	<u>478-542-2040</u>	<u>jwilliams@houstoncountygas.org</u>
<u>Heather Holloway</u>	<u>Assistant County Dir. <sup>Nuclear</sup></u>	<u>HCHD</u>	<u>476-726-7000</u>	<u>heather.holloway@dnr.ga.gov</u>
<u>David Bongelli</u>	<u>Director EMS</u>	<u>Houston Healthcare</u>	<u>(478) 515-0400</u>	<u>dbongelli@hhc.org</u>
<u>BARRY HOUNS</u>	<u>DIRECTOR OF ADMIN</u>	<u>Houston County Cour</u>	<u>(478) 542-2115</u>	<u>barry.houns@houstoncountygaz.org</u>
<u>Bew Knisut</u>	<u>Asst Scott</u>	<u>Cen for v. 11e</u>	<u>478-9553322</u>	
<u>Ron Smith</u>	<u>Utility Sup</u>	<u>CWR</u>	<u>478-952-3889</u>	<u>rsmith@wrga.gov</u>
<u>Scott Hill</u>	<u>Dr. Facilities</u>	<u>HCOE</u>	<u>478-338-3111</u>	<u>scott.hill@hche.net</u>
<u>JOHN WAGNER SR.</u>	<u>ASST. CHIEF</u>	<u>WRPD</u>	<u>478-302-5426</u>	<u>jwagner@wrga.gov</u>
<u>Ricky Harlowe</u>	<u>Director E-911</u>	<u>Houston Co</u>	<u>478-256-2980</u>	<u>rhharlowe@houstoncountygaz.org</u>
<u>Kirk Crumpton</u>	<u>BATTALION CHIEF</u>	<u>PERRY FIRE DEPT</u>	<u>478-256-5292</u>	<u>kirk.crumpton@perry.ga.gov</u>



From page 1A

Elementary's Traci Shipp, Northside Middle School's Amanda Hayes and Veterans High School's Carrie Chastain.

Now that the opening session is completed, the educators will be heading to their respective classrooms for planning and professional learning. The first day of school is Monday, Aug. 3.

**Getting back to the ABCs, Houston's educators gather Monday for orientation.**



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## Warner Robins author Bratko releases Christian storybook

*Special to the Journal*

Author Kendra Bratko introduces young readers to God through her entertaining, new storybook, "Mr. Mouse, Right!" Her book is set to be released nationwide this week.

In "Mr. Mouse, Right!" a

lonely field mouse dreams of finding her prince in shining armor, but along the way, she finds so much more. She finds her king of kings, who is God, and learns a valuable lesson. After all, who needs a prince when one has a king on an almighty throne?

Published by Tate Publishing and Enterprises, the book is available through bookstores nationwide, from the publisher at [www.tatepublishing.com/bookstore](http://www.tatepublishing.com/bookstore), or by visiting [barnesandnoble.com](http://barnesandnoble.com) or [amazon.com](http://amazon.com).

Bratko is currently a stay-

at-home mother of three and a military spouse. She enjoys writing for her children and finds inspiration for her stories from parenting. The author sincerely hopes that other children will love her story as much as her own children do.



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### PUBLIC HEARING NOTICE

Houston County will hold a public hearing regarding the update of the community's Pre-Disaster Mitigation Plan on Friday, July 31, 2015 at 9:00 a.m. at the Houston County Annex at 200 Carl Vinson Parkway, Warner Robins, Georgia 31088. The purpose of this hearing will be to inform citizens of the planning process and to obtain citizen input into the development of the plan update. Representatives from the Pre-Disaster Mitigation Planning Committee and the Middle Georgia Regional Commission will be on hand to provide information and receive comments.



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**HOUSTON COUNTY  
PRE-DISASTER MITIGATION PLAN UPDATE  
PUBLIC HEARING  
August 21, 2015 - 9:00 am  
Houston County Annex**

**AGENDA**

- I. Welcome & Introduction**
- II. Background**
- III. Disaster Mitigation Act of 2000**
  - Grant awarded to Houston County
  - Planning Committee formed
  - Plan developed, approved & adopted
  - Plan components
- IV. The Update Process**
  - Grant awarded to Houston County
  - Planning Committee reconvened for plan update
  - Roles & responsibilities
  - Update requirements
  - Timelines
- V. Presentation of Draft and Discussion of Changes**
- VI. Engaging the Public**
- VII. Discussion**
- VIII. Adjourn**

# Attendance Record for Houston County Pre-Disaster Plan Public Hearing #2

Meeting Date: 8/21/2015

<u>Name</u>	<u>Title</u>	<u>Organization</u>	<u>Phone</u>	<u>E-mail</u>
<u>Kenneth L. Ecell</u>	<u>Detective-Lieutenant</u>	<u>Perry Police Dept</u>	<u>478-338-0255</u>	<u>Kevin.ezell@perry-ga.gov</u>
<u>Jason Jones</u>	<u>Fire Chief</u>	<u>Centerville Fire Dept</u>	<u>478-808-9722</u>	<u>jonesctd.commail.com</u>
<u>Heather Holloway</u>	<u>Assistant City Manager</u>	<u>HCHD</u>	<u>210-200</u>	<u>heather.holloway@chd.ga.gov</u>
<u>Kevin Noles</u>	<u>Asst. Chief</u>	<u>HCFD</u>	<u>478-542-2046</u>	<u>knoles@houstoncountyga.org</u>
<u>Dario Bourqueul</u>	<u>Director</u>	<u>HHC EMS</u>	<u>478-975-5400</u>	<u>dbourquell@hhc.org</u>
<u>Jason G. Collins</u>	<u>Water Treatment Operator</u>	<u>City of Centerville Utilities</u>	<u>808-9758</u>	<u>jason.collins410@gmail.com</u>
<u>David Haynes</u>	<u>Fire Chief</u>	<u>Dooly State Prison</u>	<u>478-230-9242</u>	<u>janathan.haynes@gdc.ga.gov</u>
<u>Jimmy Williams</u>	<u>Fire Chief</u>	<u>Houston Co. EMA/FIRE</u>	<u>478-542-2040</u>	<u>jwilliams@houstoncountyga.org</u>
<u>Barely Howard</u>	<u>Dir of Admin</u>	<u>Hs Co. Commissioners</u>	<u>478-542-2115</u>	<u>bholland@houstoncountyga.org</u>
_____	_____	_____	_____	_____
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# Book

## collectors

can develop slowly making it difficult for the person to breathe. There is no cure for COPD. However, there are many things you can do to relieve symptoms and keep the disease from getting worse. This program is designed for persons diagnosed with COPD or their caregivers. Lunch provided for those who pre-register.

Thursday, Aug. 27

11 a.m. - noon: FREE spirometry and blood pressure screenings

Noon - 1 p.m.: Lunch and Learn program  
Houston Health Pavilion  
EduCare Center  
233 North Houston Road,  
Warner Robins  
Call 923-9771 to pre-register.

### HELP FOR THE HEART: HEART FAILURE EDUCATION

A two-session education program designed to improve the quality of life for persons with heart failure. Taught by a multidisciplinary team of healthcare professionals, educational topics include Understanding Heart Failure, Nutrition, Combating Fatigue, and Medications. Join us for this free informative and beneficial program to become a more active part of improving your overall health. Caregivers or support persons are also encouraged to attend.



A public hearing will be held for the Houston County Pre-Disaster Mitigation Plan Update on Friday, August 21, 2015 at 9:00 a.m. in the Commissioner's Board Room, Houston County Annex, located at 200 Carl Vinson Parkway, Warner Robins, Georgia. The purpose of this hearing is to present a draft copy of the updated plan for review and discussion. Representatives from the Pre-Disaster Mitigation Planning Committee and the Middle Georgia Regional Commission will be on hand to provide information and receive comments. Questions and comments concerning the Houston County Pre-Disaster Mitigation Plan Update should be directed to Daniel Cummings with the Middle Georgia Regional Commission at (478)751-6160.

### Central Georgia Technical College Annual Equal Employment Opportunity Notice

Central Georgia Technical College (CGTC) is an equal opportunity employer and offers career and technical education programs for all regardless of race, color, religion, sex, marital status, age, disability, or national origin.

Programs are available under the following areas:  
Aerospace, Trade & Industry  
Business & Computer technologies  
Health Sciences  
Public Safety & Professional Services  
General Studies

Persons seeking further information concerning the career and technical education offerings and specific pre-requisite criteria for admission to these programs should contact the CGTC Admissions Office at (478) 988-0880.

Central Georgia Technical College offers additional services to students with limited English language skills or with disabilities so that they may benefit from these programs. For additional information regarding these services, your rights, grievance procedures, or the College's non-discrimination policies please contact:

The Title IX/Section 504/ADA Coordinator for CGTC is Linda Hampton, Executive Director of Conduct, Appeals and Compliance, Room J-133, 3300 Macon Tech Drive, Macon, GA 31204.  
Phone: (478) 767-3408; Fax: (478) 471-8197; Email: lhampton@centralgaitech.edu



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# Middle Ga. State



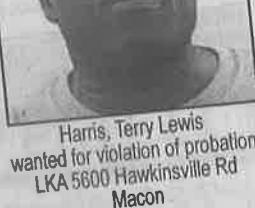
Bautista, Hector  
wanted for bail jumping  
LKA 125 Ignacio Dr E-3  
Warner Robins



Code, Antwann  
wanted for arrest order  
LKA 209 Willow Ave  
Warner Robins



Escalante-Perez, Simeon  
wanted for violation of probation  
LKA 120 Ignacio Dr Apt O-2  
Warner Robins



Harris, Terry Lewis  
wanted for violation of probation  
LKA 5600 Hawkinsville Rd  
Macon



Hickey, Antonio  
wanted for battery  
LKA 111 Northfork Ct  
Warner Robins



Kendrick, Wendell Terrell  
wanted for violation of probation  
LKA 242 Johns Rd  
Warner Robins



Lawson, Marqueeze Lashun  
wanted for bench warrant  
LKA 613 Greenbriar Rd #55  
Warner Robins



Morgan, Tyjae Raekwon  
wanted for bench warrant  
LKA 111 Williams Dr  
Warner Robins



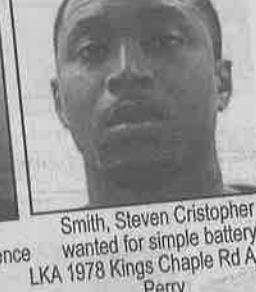
Ridley, Terrell  
wanted for terroristic threats or  
acts LKA 1436 Watson Blvd  
Apt 51  
Warner Robins



Robinson, Alvin Jr.  
wanted for simple battery  
LKA 226 Wenden Way  
Warner Robins



Simmons, Rasad Aron  
wanted for simple assault violence  
LKA 441 Dunmury Pl



Smith, Steven Christopher  
wanted for simple battery  
LKA 1978 Kings Chaple Rd Apt 65  
Perry



Walton, Wilbur Franklin Jr.  
wanted for simple battery & violation of



Williams, Jabre O.  
wanted for arrest order x3  
LKA 1222 Creekwood Dr